California Conservation Corps, Willits Center

FINAL
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
AND
RESPONSES TO COMMENTS

State Clearinghouse Number

2020019042

March 2020

Lead Agency:

California Conservation Corps
1719 24th Street
Sacramento, CA 95816

Prepared for:

DGS CALIFORNIA DEPARTMENT OF GENERAL SERVICES

State of California Department of General Services
RESD-PMDB-Environmental Services – MS 506
707 3rd Street, Fourth Floor
West Sacramento, California 95605

Prepared by:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2525 Warren Drive
Rocklin, CA 95677

NOTICE OF DETERMINATION

TO:	**FROM:**
Office of Planning and Research 1400 10th Street Sacramento, CA 95814	California Conservation Corps 1719 24th Street Sacramento, CA 95816

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 of the Public Resources Code

PROJECT TITLE: California Conservation Corps, Willits Center

State Clearinghouse Number	*Contact Person*	*Telephone Number*
2020019042	Ms. Stephanie Coleman	(916) 376-1602

Project Approval:

The California Conservation Corps adopted the Initial Study/Mitigated Negative Declaration and approved the CCC, Willits Center on March 26, 2020.

Project Location:

Address: 440 East Hill Road, Willits, California, 95490
The Project site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the Town of Willits, Mendocino County, California within Assessor Parcel Numbers (APNs) 007-160-18 and 007-100-28.

Project Description:

The California Conservation Corps (CCC) Willits Center (Proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The proposed 27.7-acre Willits Center site is located north of East Hill Road, bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the town of Willits, Mendocino County. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photovoltaic array. The facility would be designed based on the prototype and CCC's residential needs to house 120 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and

Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

The California Conservation Corps, as the Lead Agency, has approved the above-described project and has made the following determinations:

a. There is no substantial evidence that the Proposed Project will have a significant effect on the environment;
b. In accordance with CEQA, a Mitigated Negative Declaration for the Proposed Project was prepared. The Mitigated Negative Declaration has been approved by the California Conservation Corps, which is the Lead Agency for the Proposed Project. The Mitigated Negative Declaration and record of project approval may be examined at the Department of General Services, Real Estate Services Division, 707 3rd Street, Fourth Floor, West Sacramento, California, 95605. The Mitigated Negative Declaration reflects the independent judgment and analysis of the California Conservation Corps;
c. Mitigation measures were required to be made a condition of approval of the Proposed Project;
d. A Statement of Overriding Considerations was not required to be adopted for the Proposed Project; and
e. A Mitigation Monitoring and Reporting Plan was adopted for the Proposed Project.

This is to certify that the Final Initial Study/Mitigated Negative Declaration including comments and responses, the mitigation monitoring and reporting plan, and record of Project approval is available to the general public at: Department of General Services, Real Estate Services Division, 707 3rd Street, Fourth Floor, West Sacramento, California, 95605.

03/26/2020

Mr. Dan Millsap
Deputy Director
Capital Outlay & Facilities Management Branch
California Conservation Corps

Date

Date Received for Filing at OPR: _____

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California Conservation Corps, Willits Center

Final
Initial Study / Mitigated Negative Declaration

State Clearinghouse Number 2020019042

March 2020

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CONTENTS

FINAL MITIGATED NEGATIVE DECLARATION
CALIFORNIA CONSERVATION CORPS, WILLITS CENTER

Lead Agency: California Conservation Corps

Project Proponent: State of California Department of General Services – Real Estate Services Division

Project Location: 440 East Hill Road, Willits, California, 95490 (Mendocino County)

Project Description:

The California Conservation Corps (CCC) Willits Center (Proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The proposed 27.7-acre Willits Center site is located north of East Hill Road, bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the town of Willits, Mendocino County. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photovoltaic array.

The facility would be designed based on the prototype and CCC's residential needs to house 120 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

Finding: Based on the information contained in the attached Initial Study, the California Conservation Corps finds that there would not be a significant effect to the environment because the mitigation measures described herein would be incorporated as part of the Proposed Project.

Public Review Period: **January 15, 2020 – February 14, 2020**

Mitigation Measures Incorporated into the Project to Avoid Significant Effects

BIOLOGICAL RESOURCES

Mitigation Measure

BIO-1: Conduct Pre-Construction Sensitive Plant Surveys. The following shall be conducted prior to initiation of Project construction:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species. If additional special-status plant species are found during surveys within the Project Site (aside from the two mapped populations of Northern Semaphore grass) and avoidance of the species is not possible, seed collection, transplantation, and/or other conservation approaches shall be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations. If no additional special-status plants are found on the Project Site, no further measures pertaining to special-status plants are necessary.

BIO-2: Conduct Pre-Construction Sensitive Amphibians Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct pre-construction surveys for foothill yellow-legged frog and red-bellied newt where construction occurs near potential habitat. If either species is observed, consultation with CDFW is required prior to initiation of construction activities. No monofilament plastic mesh or line shall be used for erosion control where habitat for foothill yellow-legged frog is identified, to reduce the risk of entrapment during construction
- Silt fencing that will not be disturbed will be installed around suitable habitat for foothill yellow-legged frog and red-bellied newt, and fencing will be inspected daily to ensure no individuals are trapped along the fence.

BIO-3: Conduct Pre-Construction Northwestern pond turtle surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction Northwestern pond turtle survey within 24 hours prior to the initiation of construction activities and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If Northwestern pond turtle is found, consultation with CDFW is required, as well as the development of a relocation plan for Northwestern pond turtles encountered during construction.

BIO-4: Conduct Pre-Construction Bird Nesting Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on and adjacent to the Project Site as described below within 14 days of commencement of construction during the nesting season (February 1 – August 31). Surveys should be conducted within 300 feet of the

Project Site for nesting raptors, including sharp-shinned hawk, and 100 feet of the Project Site for nesting birds.

- A no-disturbance buffer around the nest shall be established if active nests are found. The buffer distance shall be established by a qualified biologist and is recommended to be 300 feet for raptors and 50 feet for non-raptor songbirds. If an active sharp-shinned hawk, yellow-breasted chat, or yellow warbler nest is found, the no-disturbance buffer shall be determined through consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest. Pre-construction nesting surveys are not required for construction activity outside the nesting season.

BIO-5: Conduct Pre-Construction Sensitive Mammal Surveys. Implement the following prior to initiation of project construction:

- Conduct a pre-construction American badger survey within 48 hours prior to construction activities. Consultation with CDFW is required prior to initiation of construction activities if American badgers are found.
- Conduct a pre-construction survey for Ringtail. Consultation with CDFW is required prior to initiation of construction activities if potential den sites are located that will not be avoided by construction. No further measures are necessary if no potential den sites are found during the survey.
- Prior to work within potentially suitable bat roosting habitat, a bat habitat assessment is recommended for all suitable roosting habitat (i.e., manmade structures and suitable trees, if present). If the assessment identifies moderate to highly suitable roosting habitat, a qualified biologist will conduct an evening bat emergence survey that may include acoustic monitoring to determine whether or not bats are present. If Townsend's big-eared bats are found, consultation with CDFW is required prior to initiation of construction activities. No further measures are necessary if no suitable roosting habitat is found, or if bats are not found during the emergence surveys.

BIO-6: Compensate for the Loss of Riparian Communities.

- To compensate for the total loss of ±0.006 acre of riparian habitat, prior to construction the Department of General Services (DGS) shall obtain a CDFW Section 1602 Permit and either create riparian habitat or purchase credits at an approved mitigation bank to ensure no net loss of riparian habitat functions and values. If purchasing mitigation credits, a 3:1 ratio will be employed, which would require a total of approximately 0.018 acre of riparian habitat credits from an agency approved mitigation bank. This ratio and acreage will be confirmed during the review of future engineering drawings and may be modified during the CDFW Section 1602 permitting process (if actual increase or decrease), which will dictate the ultimate compensation. The DGS will provide written evidence to the resource agencies that compensation has been established through the purchase of mitigation credits. The amount

to be paid will be the fee that is in effect at the time the fee is paid. Alternatively, DGS shall provide a Riparian Habitat Mitigation Plan for CDFW approval that identifies appropriate habitat creation, success criteria and monitoring and reporting requirements consistent with the Project's 1602 Permit conditions.

BIO-7: Compensate for the Permanent Loss of Wetlands/Waters of the United States/Waters of the State.

- To compensate for the permanent loss of Waters of the U.S./State, DGS shall obtain Section 404 and 401 Permits from the USACE and RWQCB and either create replacement wetland habitat or purchase credits at an agency-approved mitigation bank to ensure no net loss of wetland functions and values. The wetland compensation ratio will be a minimum of 1:1 (one acre of wetland habitat credit for every one acre of impact) to ensure no net loss of wetland habitat functions and values. The DGS will also implement the conditions and requirements of state and federal permits that will be obtained for the Proposed Project. The actual mitigation ratio and associated credit acreage may be modified based on final design and USACE and RWQCB permitting which will dictate the ultimate compensation for permanent impacts to Waters of the U.S./ State. Alternatively, DGS shall provide a Wetland Habitat Mitigation Plan for USACE and RWQCB approval that identifies appropriate wetland creation, success criteria and monitoring and reporting requirements consistent with the Project's Section 404 and 401 Permit conditions. Furthermore, existing data from a previous delineation conducted during the wet season in 2016 will be used to determine the extent of Waters of the State under the pending new State Dredge and Fill Procedures, and to support preparation of the application for a Water Quality Certification and Streambed Alteration Agreement.

CULTURAL RESOURCES

Mitigation Measure

CUL-1: Implement Measures to Protect Unanticipated Cultural Resources Discoveries Awareness Training and Monitoring.

- A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall provide pre-construction cultural resources awareness training to all construction personnel. Training will include appropriate protocol following the unanticipated discovery of any archaeological deposits during construction. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activity associated with the Project.

Stop Work for Unanticipated Discoveries and Evaluate the Find

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 50-foot radius of the discovery. The qualified archaeologist shall be called upon to evaluate the significance of the find and shall have the

authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify RESD. RESD shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the CRHR. Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the site either: 1) is not eligible for or CRHR; or 2) that the treatment measures have been completed to its satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Mendocino County Medical Examiner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, the Medical Examiner will notify the NAHC, who then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If RESD does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, RESD must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

GEOLOGY AND SOILS

Mitigation Measure

GEO-1: Discovery of Unknown Paleontological Resources.

- If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until RESD is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. In addition, in the event of an inadvertent find, sediment samples should be collected and processed to determine the

small fossil potential on the Project Site. If RESD resumes work in a location where paleontological remains have been discovered and cleared, RESD will have a paleontologist onsite to observe any continuing excavation to confirm that no additional paleontological resources are in the area. Any fossil materials uncovered during mitigation activities should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

TRANSPORTATION

Mitigation Measure

TRANS-1: Pay Fair Share for Signal Improvements.

- The Project applicant shall pay their fair share toward the installation of a traffic signal at the intersection of Main Street and Baechtel Road.

TRIBAL CULTURAL RESOURCES

Mitigation Measure

Tribal Cultural Resources

- To ensure less-than-significant impacts to tribal cultural resources, the Tribal Cultural Resources section requires implementation of Mitigation Measure **CUL-1** to ensure less-than-significant impacts. For the full text of Mitigation Measure **CUL-1**, see Cultural Resources above.

SECTION 1.0 INTRODUCTION

This document is the Final Initial Study and Mitigated Negative Declaration including the Responses to Comments and the Mitigation Monitoring and Reporting Plan (Final IS/MND) for the California Conservation Corps, Willits Center (Proposed Project). It has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resource Code Section 21000 et. seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.) as amended. This Final IS/MND and Responses to Comments document supplements and updates the Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) released for public review on January 15, 2020.

The California Conservation Corps is the Lead Agency for the Proposed Project. On January 15, 2020 the California Conservation Corps distributed the Draft IS/MND for the Proposed Project to public agencies and the general public for review and comment. In accordance with the State CEQA Guidelines, a 30-day review period, which ended on February 14, 2020, was completed. During the public review period, 4 (four) comment letters and/or emails on the Draft IS/MND were received from interested parties.

This Final IS/MND and Responses to Comments document is organized as follows:

- Section 1.0 provides a discussion of the purpose of the document and discusses the structure of the document;
- Section 2.0 contains a summary of the Project Description, a description of minor changes to the Project Description and a discussion regarding why these changes do not require recirculation of the Draft IS/MND;
- Section 3.0 includes the comment letters received and responses to these comments;
- Section 4.0 includes corrections and revisions made to the Draft IS/MND in response to comments;
- Section 5.0 includes the Proposed Project's Mitigation Monitoring and Reporting Program (MMRP), prepared pursuant to Public Resources Code Section 21081.6; and
- Section 6.0 includes the Notice of Intent, proof of publication, environmental filing receipt, and the Draft IS/MND.

This Final MND document and the Draft IS/MND together constitute the environmental document for the Proposed Project. As a result of comments received on the Draft IS/MND, minor revisions were required to the Draft IS/MND text, however, there were no substantial revisions that would require recirculation of the document. A substantial revision according to Section 15073.5 of the *2020 CEQA Statute Guidelines* shall mean:

"(1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or

(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required."

This Final IS/MND document and the Draft IS/MND together constitute the environmental document for the Proposed Project.

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SECTION 2.0 PROJECT OVERVIEW

2.1 Project Location

The Proposed Project is located at 440 East Hill Road, Willits, California, 95490. The Project Site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the Town of Willits, Mendocino County, California within Assessor Parcel Numbers (APNs) 007-160-18; and, 007-100-28.

2.2 Project Description

The California Conservation Corps (CCC) Willits Center (Proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The proposed 27.7-acre Willits Center site is located north of East Hill Road, bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the town of Willits, Mendocino County. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photovoltaic array.

The facility would be designed based on the prototype and CCC's residential needs to house 120 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

2.3 Decision Not to Recirculate Draft MND

After the completion of the public/agency comment period for the Draft IS/MND, minor changes were made to sections of the IS/MND. These revisions do not meet the criteria for recirculation of the MND prior to adoption as outlined in Section 15073.5 of the State CEQA Guidelines. According to the Guidelines "A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has been given pursuant to Section 15072 but prior to its adoption."

The revisions proposed in this Final MND do not meet the criteria for recirculation provided in Section 15073.5 (c) of the CEQA Guidelines. These criteria are provided below, along with an explanation regarding the reasons why the changes to the project do not require recirculation.

Recirculation is not required under the following circumstances:

(1) *Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.* No mitigation measures have been replaced. However, Mitigation Measure BIO-1 was revised to clarify that seed collection, transplantation, and/or other conservation approaches shall be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations. Also, Mitigation Measure **BIO-7** was revised to remove the cited impact acreage for consistency with the revised state and federal wetland permitting approach discussed in RWQCB Response 3 and to clarify that existing data from a previous delineation conducted during the wet season in 2016 will be used to determine the extent of Waters of the State under the pending new State Dredge and Fill Procedures, and to support preparation of the application for a Water Quality Certification and Streambed Alteration Agreement. These revisions address agency concerns and do not reduce the effectiveness of the original mitigation measures.

(2) *New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.* Changes to the Project permitting approach were made in response to the RWQCB's comment letter. These changes ensure wetland mitigation will occur consistent with state requirements. The Project has incorporated all feasible avoidance and these changes do not represent new avoidable significant effects.

(3) *Measures or conditions of project approval are added after circulation of the negative declaration, which is not required by CEQA, which do not create new significant environmental effects, and are not necessary to mitigate an avoidable significant effect.* As discussed above, minor revions to Mitigation Measures **BIO-1** and **BIO-7** have been incorporated however no new mitigation measures or conditions have been added.

(4) *New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.* Mitigation measure revisions only serve to clarify state and federal requirements and do not require recirculation.

SECTION 3.0 COMMENTS AND RESPONSES

This section of the document contains copies of the comment letters received during the 30-day public review period, which began on January 15, 2020, and ended on February 14, 2020. In conformance with Section 15088(a) of the State CEQA Guidelines, the California Conservation Corps has considered comments on environmental issues from reviewers of the Draft IS/MND and has prepared written responses. Three (3) letters and one (1) email were received, commenting on the Draft IS/MND. These letters, and the responses to the comments contained in the letters are provided in this section.

A list of public agencies, organizations, and individuals that provided comments on the Draft IS/MND is presented below. The letters and the responses to the comments follow this page.

3.1 List of Comment Letters

Letter Number	Sender	Date Received
1	Curt Babcock, California Department of Fish and Wildlife	February 11, 2020
2	Tatiana Ahlstrand, California Department of Transportation	February 13, 2020
3	Gil Falcone, North Coast Regional Water Quality Control Board	February 13, 2020
4	Jennifer Riddell, California Native Plant Society	February 14, 2020

3.2 Letter 1 (CDFW) – Curt Babcock, Habitat Conservation Program Manager, Northern Region, California Department of Fish and Wildlife, received February 11, 2020

State of California
Department of Fish and Wildlife

M e m o r a n d u m

Date: February 11, 2020

To: Stephanie Coleman
Senior Environmental Planner
Department of General Services

From: **Curt Babcock**
Habitat Conservation Program Manager
Northern Region

Subject: **California Conservation Corps, Willits Center (State Clearinghouse #2020019042)**

Dear Ms. Coleman:

On January 21, 2020, California Department of Fish and Wildlife (CDFW) received a Notice of Completion for a draft Initial Study/Mitigated Negative Declaration (ISMND) from the California Conservation Corps (CCC) for the CCC, Willits Center Project (Project) located in Mendocino County, California. As a Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary to sustain their populations. As a Responsible Agency, CDFW administers the California Endangered Species Act (CESA) and other provisions of the Fish and Game Code that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as a Trustee and Responsible Agency under the California Environmental Quality Act (CEQA; California Pub. Resource Code § 21000 et seq.).

The Project develops a new operations center at 440 East Hill Road in Willits, CA, APN 007-160-18 and 007-100-28. Twelve new buildings, encompassing approximately 64,000 square feet, will be built on the 27.7-acre site, and development will include paved asphalt surfaces for driveways and parking, as well as a paved asphalt emergency crew/vehicle staging area. Further development includes a solar array, a foot trail, and a bridge over a watercourse.

CDFW Region 1 staff were not provided the opportunity to consult on any aspect of this Project, or ISMND prior to receiving the Notice of Completion.

CDFW has three primary concerns with the ISMND:

CDFW-1

1. The Biological Resource Assessment (BRA) does not include rare plant and Sensitive Natural Community (SNC) survey results, despite the potential presence of 24 rare plant species and a SNC. Without baseline knowledge of the presence and extent of these biological resources, CDFW cannot evaluate the potential impacts, determinations of significance, or efficacy of mitigations described in the ISMND.
2. CDFW has determined that impacts to streams and wetlands will be significant, given the buffers proposed, and is concerned about unaddressed impacts due to fire safety management of vegetation.

3. CDFW is unaware of any operating mitigation banks in Mendocino County. Therefore, details of compensatory mitigation, as necessary, should be included in the ISMND so that agencies and the public may adequately review their effectiveness.

CDFW-1

Therefore, CDFW recommends the Lead Agency include rare plant and SNC surveys in the ISMND prior to adoption, increase the disturbance buffers for sensitive biological resources, and propose specific compensatory mitigation when necessary. These changes are necessary for CDFW to determine that the Project, as a whole, will have a less than significant impact on biological resources.

Rare Plants and Sensitive Natural Communities

Although the ISMND describes the presence of wetlands, riparian vegetation, streams, and two populations of north coast semaphore grass (*Pleuropogon hooverianus*), a rare plant (State Rank 2 – "*imperiled*"), and the potential presence of up to 23 other species of rare plant, no other botanical surveys are reported for the site. The ISMND conditions further botanical studies in Mitigation BIO-1, which further states that mitigations for impacts to any special status plants may be developed, if present. The ISMND concludes that the mitigation measures described in BIO-1 reduce the potential impacts to all rare plants and SNC to less than significant.

CDFW-2

The ISMND also includes a wetland delineation report that describes plants and natural communities on the site. This report differs considerably from the BRA in its description. It maps the riparian trees on the site as "*Valley Oak Riparian*," which corresponds to a *Quercus lobata* Woodland Alliance (Valley Oak Woodland), a SNC with State Rank 3 ("*vulnerable*"). It also describes the grassland community as a "*bentgrass meadow*," whereas the BRA describes the grassland as "*annual grassland*" and provides a list of dominant species that does not include bentgrass (*Agrostis spp.)*. This conflicting reporting leaves uncertainty about the natural communities on the site and the potential for SNC.

CDFW-3

At the time this ISMND was drafted, definitive information describing the presence and extent of rare plants and SNC could have been known from botanical surveys to accepted protocols. Because these surveys are deferred to a pre-construction date, and due to inconsistencies in existing botanical assessment, there is uncertainty in the environmental setting of the Project. Because this baseline of environmental setting is uncertain, CDFW, other agencies, and the public do not have a basis from which to assess the potential impacts to biological resources, the significance of these potential impacts, or the adequacy of proposed mitigations to reduce the impacts to less than significant.
CDFW recommends that the Lead Agency provide the results of rare plant and SNC surveys for all locations that may be impacted by the Project. Survey results should be included in the Initial Study and inform both the Initial Study and Findings of Significance. This should occur prior to notification of intent to adopt this Mitigated Negative Declaration (MND). As needed, specific mitigation and a Mitigation Monitoring Reporting Plan (MMRP) should be provided.

CDFW-4

Wetland, Stream, and Riparian Buffers

The ISMND identifies 1.07 acres of stream, wetland adjacent to stream, and seasonal wetland depressions at the site. Although many of these features appear to support riparian vegetation, the riparian vegetation is not mapped or buffered. The ISMND approximates direct impacts to 0.006 acres of riparian habitat, and 0.027 acres of waters of the State.

On page 2-11 ("*Avoidance Areas*") the ISMND states that streams will be protected with a 50-foot buffer, and wetlands with a 25-foot buffer. Project mapping indicates that riparian trees are not included as a buffered resource. Other than the mention of these buffers, the ISMND does not discuss impacts to streams, wetlands, or riparian vegetation other than direct impacts from the installation of a bridge and the filling of two wetlands. Therefore, CDFW assumes that the Lead Agency determines that the proposed buffers are adequate to reduce impacts to wetlands and streams, other than the direct impacts cited, to less than significant.

In a review of wetland and riparian buffers (CDFW 2014), CDFW concludes that failure to maintain buffers connecting wetland and upland features "*will result in the creation of isolated wetland enclaves scattered throughout highly urbanized areas and result in indirect loss of wetland habitat values*." A review by the Coastal Commission showed that 30 meter-wide to 59 meter-wide (100-foot-wide to 195-foot-wide) buffers are generally accepted in the scientific literature as effectively protecting aquatic resources (California Coastal Commission 2007). CDFW typically recommends habitat buffer widths of at least 150 feet for streams and wetlands (CDFW 2014). Development setbacks of at least 100 feet are commonly employed to minimize indirect impacts to rare plant populations and SNC, however the width and placement of effective and appropriate development setbacks should be site and project-specific and thus should be developed in consultation with CDFW and analyzed and mapped in the Project CEQA document.

CDFW-5

Heightened concern for fire-safe buffers around structures is another reason why the proposed buffers are unlikely to be effective. CALFIRE recommends, and insurance companies increasingly require, 100-foot fire-safe buffers around structures. These activities, plus further vegetation removal and land use adjacent to structures, such as the removal of snake habitat discussed in the ISMND, will likely occur within the proposed buffers for streams, wetlands, riparian vegetation, rare plants, and SNC. Consequently, fire safety and land use considerations may impose a need for wider disturbance buffers.

The ISMND should describe adequate disturbance buffers for riparian vegetation, streams, and wetlands. CDFW recommends that the buffer be measured from the dripline of riparian vegetation, top of stream bank when riparian vegetation is absent, or from the delineated edge of wetlands. The buffer should extend, at a minimum, 100 feet from this edge. Furthermore, the ISMND should define appropriate uses within these buffers, and condition them as necessary to reduce impacts to less than significant. Alternatively, the ISMND should propose compensatory mitigation for significant impacts to these resources if adequate buffers cannot be accommodated.

Wetland and Riparian Mitigation

Mitigation measures BIO-6 and BIO-7 propose the purchase of credits at an approved mitigation bank as a means of compensatory mitigation for permanent impacts. CDFW is unaware of any operating mitigation banks in Mendocino County.

CDFW-6 Mitigation measure BIO-6 further proposes that compensatory mitigation for permanent impacts to riparian vegetation will be formulated during CDFW section 1602 permitting along with a MMRP. Similarly, BIO-7 defers compensatory mitigation for permanent impacts to waters of the State to permitting through North Coast Regional Water Quality Control Board and U.S. Army Corps of Engineers.

Since the Lead Agency is able to predict impacts to these resources, and since the Lead Agency is able to consult with responsible agencies to determine the details of adequate and appropriate compensatory mitigation, these impacts and their mitigations should be considered a part of the whole of the Project. Because the whole of the Project should be available for agency and public review, CDFW recommends the Lead Agency include details of proposed mitigations and a draft MMRP in the ISMND prior to notification for adoption.

Further Considerations

CDFW-7 Botanists should review recent CDFW guidance regarding grasslands (CDFW 2020) before conducting further surveys at the site. It is sometimes difficult to determine whether a given grassland represents a native grassland impacted by invasive, non-native plants, or whether it is truly a non-native (semi-natural) grassland, as reported in the ISMND.

CDFW-8 Wildlife species evaluated in the ISMND should include grasshopper sparrow (*Ammodramus savannarum*) (Species of Special Concern), white-tailed kite (*Elanus leucurus*) (Fully Protected), and western bumblebee (*Bombus occidentalis ssp occidentalis*) (Candidate for State Listing). The Lead Agency should review the wildlife scoping tables and ensure that no other species are missing from the ISMND analysis.

Summary of Recommendations

CDFW-9
1. In order to establish an adequate baseline and environmental setting, the Lead Agency should provide the results of rare plant and SNC surveys for all locations that may be impacted by the Project. These survey results should be included in the Initial Study and inform both the Initial Study and Findings of Significance. This should occur prior to notification of intent to adopt this MND. As needed, specific mitigation and MMRP should be provided.

CDFW-10

2. The ISMND should propose adequate disturbance buffers for riparian vegetation, streams, and wetlands. CDFW recommends that the buffer be measured from the dripline of riparian vegetation, top of stream bank when riparian vegetation is absent, or from the delineated edge of wetlands. The buffer should extend, at a minimum, 100 feet from this edge. Alternatively, the ISMND should propose compensatory mitigation for significant impacts to these resources.

CDFW-11

3. The Lead Agency should, with consultation from responsible and trustee agencies, propose feasible and effective mitigations such that the impacts of the whole of the Project will be less than significant. Compensatory mitigations and a MMRP should be included in the ISMND prior to notification for adoption.

CDFW-12

4. Project botanists should review recent CDFW guidance on grassland natural communities before surveying the site.

CDFW-13

5. The assessment of impacts to potentially-occurring wildlife should include all potentially-occurring species, including, but not limited to, grasshopper sparrow (Species of Special Concern); white-tailed kite (Fully Protected); and western bumble bee (Candidate for State Listing).

Thank you for the opportunity to comment on this draft ISMND. CDFW staff are available to meet with you to consult with or address the contents of this letter in greater depth. If you have questions on this matter or would like to discuss these recommendations, please contact Environmental Scientist Daniel Harrington at (707) 456-0335 or by e-mail at daniel.harrington@wildlife.ca.gov.

Ec: Stephanie Coleman
Department of General Services
stephanie.coleman@dgs.ca.gov

Kasey Sirkin, Keith Hess
U.S. Army Corps of Engineers
l.k.sirkin@usace.army.mil, keith.d.hess@usace.army.mil

Gil Falcone
North Coast Regional Water Quality Control Board
gil.falcone@waterboards.ca.gov

State Clearinghouse, Office of Planning and Research
state.clearinghouse@opr.ca.gov

Gordon Leppig, Jennifer Garrison, Daniel Harrington, Angela Liebenberg, Dana Mason, Cheri Sanville
California Department of Fish and Wildlife
gordon.leppig@wildlife.ca.gov, jennifer.garrison@wildlife.ca.gov, daniel.harrington@wildlife.ca.gov, angela.liebenberg@wildlife.ca.gov, dana.mason@wildlife.ca.gov, cheri.sanville@wildlife.ca.gov

References

California Coastal Commission. 2007. Policies in local coastal programs regarding development setbacks and mitigation ratios for wetlands and other environmentally sensitive habitat areas. California Coastal Commission, San Francisco, CA.

California Department of Fish and Wildlife. 2014. Technical Memorandum: Development, Land Use, and Climate Change Impacts on Wetland and Riparian Habitats – A Summary of Scientifically Supported Conservation Strategies, Mitigation Measures, and Best Management Practices. California Department of Fish and Wildlife, Redding, CA. https://www.wildlife.ca.gov/Regions/1

California Department of Fish and Wildlife. 2020. Natural Communities – Addressing Grasslands and Flower Fields. California Department of Fish and Wildlife, Sacramento, CA. https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#grasslands

3.2.1 Letter 1 Responses to Comments

Response to Comment CDFW-1:

The Biological Resource Assessment (BRA) that was conducted to inform the CEQA document does not typically include protocol-level surveys, such as a special status plant species survey (which includes determination of any Sensitive Natural Communities). However, ECORP conducted a reconnaissance-level survey of all the potential special status species and their habitats. In this particular field visit, ECORP also included a focused survey and mapping of a federally listed plant species (North Coast semaphore grass), as it was previously known to be present within the proposed Project site. As part of the BRA recommendations (Mitigation Measure **BIO-1**), ECORP included a protocol-level special-status plant species survey(s) that would coincide with the blooming period(s) of the potential status plant species referred to in the target list for the Project site. In response to CDFW concerns with language in Mitigation Measure **BIO-1**, the measure has been modified to explicitly require consultation with resource agencies to reduce impacts to special status plant populations in the event they are discovered during protocol-level surveys within the development footprint.

The buffers included in the BRA for avoidance of impacts to streams and wetlands were recommended based on the results of the Preliminary Delineation of Potential Waters of the U.S conducted by LSA. In response to this comment, setbacks were expanded to increase the buffering of the riparian vegetation along the central drainage corridor (See **Figure 4.4-4. Biological Constraints** in Section 4.0, below). With regard to concerns with impacts within the buffer areas associated with vegetation management for fire safety, CCC has indicated that they will not perform any vegetation management within the buffer areas which will be retained as natural features on the site.

Mitigation Measure **BIO-7** in the Draft IS/MND lists possible options for mitigation, including on-site and in-kind wetland habitat creation, or purchase of credits from a mitigation bank, if feasible. The details of the proposed mitigation will be developed through consultation with the agencies as part of the permitting process. It should be noted that Mitigation Measure **BIO-7** has been modified to incorporate existing wet season data in response to comments submitted by the North Coast Regional Water Quality Control Board (See Section 4.0 below). The results of that survey may modify the total acreage of Waters of the State that could be impacted by project implementation but will not change the level of significance or the recommended mitigation to address waters impacts.

Response to Comment CDFW-2:

This comment describes the approach taken to addressing impacts to special status plants in the IS/MND including the proposed mitigation and conclusions. See Response to Comment CDFW-1, above, for information regarding the approach to special status plant species. Additionally, the two known populations of north coast semaphore grass are avoided as part of the proposed site plan.

Response to Comment CDFW-3:

During the rare plant survey (Mitigation Measure **BIO-1**), ECORP will identify the natural communities on the site according to *A Manual of California Vegetation* (Sawyer et al. 2009). The "valley oak riparian" noted in the wetland delineation is not clearly described, so it would be difficult to conclude that it and the "riparian" noted in the BRA differ considerably. Additionally, neither vegetation type is considered an official alliance type in the *A Manual of California Vegetation* (Sawyer et al. 2009).

Response to Comment CDFW-4:

This comment summarizes CDFW's concerns with not having the results of a special-status plant survey and identification of any potential Sensitive Natural Communities. These issues are addressed above in Response to Comment CDFW-1.

The comment further states that protocol level survey results are needed in the ISMND to ensure that there are no environmental impacts of this project. In response to the comment, the use of pre-construction and protocol-level surveys conducted after preparation of the CEQA document, is a standard means of ensuring adequate mitigation of potentially significant impacts on biological resources and is consistent with State CEQA Guidelines and relevant CEQA case law. Preconstruction and protocol-level surveys allow the Lead Agency to determine whether resources are present prior to initiating construction and take appropriate action to avoid or mitigate potentially significant impacts. This approach is appropriate under CEQA so long as the mitigation measure also identifies potential actions to be taken in the event that preconstruction surveys find significant resources and performance criteria to assure the effectiveness of those actions in mitigating the impact. Development of the project can't move forward until these performance criteria have been meet. The mitigation as proposed includes actions to be taken and performance criteria consistent with CEQA case law. Additionally, if additional state listed plants are identified on the site, CDFW will be consulted to determine appropriate mitigation.

Response to Comment CDFW-5:

This comment summarizes CDFW's concerns with mapping wetland and riparian vegetation buffers of this resource, and fire safety. These issues are addressed above in Response to Comment CDFW-1. Additionally, the Project site is not under the jurisdiction of the California Coastal Commission. The CDFW recommended buffer of at least 150 feet appears to stem from a variety of studies included in a 2014 Technical Memorandum (CDFW 2014). Many of these studies reference the need for larger buffers as being tied to maintaining habitat for various flora and fauna, as well as limiting water quality and human trash impacts. These studies refer to the need for larger buffers to maintain habitat for avian biodiversity, mammal predators, salamanders, and riparian associated fauna (CDFW 2014). The quote referenced in this document refers to the "ecological bond between wetlands and associated uplands" (CDFW 2014).

This Project is located adjacent to US-101, commercial uses, and an old railroad corridor, so it is not pristine habitat that is undisturbed by adjacent uses. The site has also been used historically for agricultural purposes. This site is located south of Haehl Creek, a dense riparian corridor with higher quality riparian habitat, that will not be impacted by this project, and other than a walking trail, the closest impact is more than 200 feet away from this creek.

If 100- to 150-foot buffers were to be employed around all riparian vegetation, streams, and wetlands on this project, then not only would this project not be feasible on this property, it would put severe constraints on any potential project at this location. The buffers included in the project protect all riparian vegetation adjacent to the two primary drainages near the center of the site and some adjacent upland habitat. As described in Response to comment CDFW-1, the setback has been expanded to increase the buffering of the riparian vegetation along the central drainage corridor (See Section 4.0 below).

California Department of Fish and Wildlife. 2014. Technical Memorandum: Development, Land Use, and Climate Change Impacts on Wetland and Riparian Habitats – A Summary of Scientifically Supported Conservation Strategies, Mitigation Measures, and Best Management Practices. California Department of Fish and Wildlife, Redding, CA. http://www.wildlife.ca.gov/Regions/1. file:///C:/Users/kday/Downloads/CDFW%20Region%201%20Wetland%20and%20Riparian%20Technical%20Memorandum%205-21-14.pdf

Response to Comment CDFW-6:

CDFW commented that they are unaware of mitigation banks within Mendocino County, and the Lead Agency should consider permittee-responsible mitigation as part of the whole project and include details regarding the mitigation plan within the IS/MND. The options for mitigation are addressed above in Response to Comment CDFW-1.

In response to whether mitigation should be considered a part of the whole project, developing a mitigation plan as part of agency permitting is a standard means of ensuring adequate mitigation of potentially significant impacts on biological resources and is consistent with State CEQA Guidelines and relevant CEQA case law. Agency permitting following protocol surveys allows agencies to determine whether resources are present prior to initiating construction and take appropriate action to avoid or mitigate potentially significant impacts. This approach is appropriate under CEQA so long as the

mitigation measure also identifies potential actions to be taken in the event that preconstruction surveys find significant resources and performance criteria to assure the effectiveness of those actions in mitigating the impact. Development of the project can't move forward until these performance criteria have been meet. The mitigation as proposed includes actions to be taken and performance criteria consistent with CEQA case law.

Response to Comment CDFW-7:

Per CDFW's recommendation, ECORP reviewed CDFW's guidance on grassland natural communities and ECORP concurs with the nomenclature presented. The discrepancies brought up in the letter from CDFW refers to the bentgrass grassland identified in the wetland delineation report as the predominant grassland species (*Agrostis stolonifera*) found during the wetland delineation site visit conducted in November 2018. This species typically blooms between July and August. The BRA site visit was conducted in May, when the bentgrass would not likely have been identifiable. The planned special-status plant survey will include mapping of vegetation alliances according to *A Manual of California Vegetation*.

Response to Comment CDFW-8:

An errata has been added into the ISMND to incorporate these three species to the list of potentially occurring species. It is important to note, that the western bumblebee was not considered a California Special Status Species Candidate at the time that the BRA was completed (June 2019); with candidate status not publicized until July 2019).

Response to Comment CDFW-9:

Please see Response to Comment CDFW-1.

Response to Comment CDFW-10:

Please see Response to Comments CDFW-1 and CDFW-5.

Response to Comment CDFW-11:

Please see Response to Comment CDFW-1 and 6.

Response to Comment CDFW-12:

Please see Response to Comment CDFW-7.

Response to Comment CDFW-13:

Please see Response to Comment CDFW-8.

3.3 Letter 2 (DOT) – Tatiana Ahlstrand, Transportation Planning, District 1, California Department of Transportation, received February 13, 2020

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 1
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EUREKA, CA 95502-3700
PHONE (707) 445-6600
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Making Conservation a California Way of Life.

February 13, 2020

Stephanie Coleman
Senior Environmental Planner
California Conservation Corps
707 Third Street, 4th Floor
Sacramento, CA 95811

1-MEN-20-45.1
CCC Willits Center
SCH: 2020019042

Dear Stephanie Coleman:

Thank you for the opportunity to comment on the draft Initial Study and Mitigated Negative Declaration for the California Conservation Corps (CCC) center in the City of Willits. The project proposes to construct a new CCC residential center that includes a total of approximately 64,000 square feet of new building construction, including an administration building, seven dormitories, an education building, recreation building, among others.

The proposed 27.7-acre site is located north of East Hill Road, bounded by the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. Although the project is adjacent to the US 101 bypass, the closest affected state highway intersection is on State Route 20 with the intersection of Main Street and Baechtel Road (south) (1-MEN-20-45.1). We have the following comments as this project moves forward:

Traffic Operations

DOT-1 In the Traffic Impact Analysis included in the Draft IS/MND (Appendix C), traffic volumes were measured in 2-hour intervals, both morning and evening, to determine peak 1-hour volumes for traffic signal warrant #3. No other warrants were evaluated. As documented in the Traffic Impact Analysis, the satisfaction of a traffic signal warrant, or warrants, does not require the installation of a traffic control signal.

To assist in determining when signal installation may be required, we request the following information be provided:

DOT-2 1. Provide justification for the 1%/year growth factor used.

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DOT-3 2. Provide justification for the 15%/85% split between north and south Baechtel Road intersections with Main Street.

DOT-4 3. Provide 13-hour Intersection Turning Movement Counts, in 15-minute increments, which include the AM and PM peak-hour periods for a weekday (Tuesday, Wednesday, and/or Thursday) and weekends for the intersection at south Baechtel Road/Main Street. Counts should not be performed during weeks with a holiday. Please include bicycle and pedestrian counts.

DOT-5 4. Evaluation of traffic signal warrants 1, 2, 4, & 7 (south Baechtel Road/Main Street intersection).

DOT-6 5. Provide the modeling files to the District.

DOT-7 Based on the requested information provided, we may also request the applicant perform an Intersection Control Analysis (ICE), in accordance with Caltrans Traffic Operations Policy Directive (TOPD) 13-02. Information about this can be located on our website at: https://dot.ca.gov/programs/traffic-operations/policy.

System Planning and Right of Way

DOT-8 The *Caltrans District 1: US 101 Transportation Concept Report* (October 2017) evaluates current and projected conditions along the route and communicates the long-range vision for the development of the route. For the section of US 101 in Willits (Willits Bypass, T43.50-48.44), the 20 Year Facility Concept is to upgrade to a 4-lane facility.

Although there is no conflict with right of way, it is worth noting that no access to or from the project parcel to US 101 is allowed, as Caltrans purchased those rights when the freeway right of way was acquired.

Hydraulics

DOT-9 There is currently poor drainage and seasonal flooding at the southeast corner of the project along East Hill Road at Sanhedrin Circle. A hydraulic analysis should be performed for the project ensuring all existing facilities can handle the expected flows. The analysis should show pre-flows, post-flows and demonstrate that any new runoff generated by the project does not exasperate the issue.

Environmental

DOT-10 Be advised that there are environmental mitigation sites associated with the Willits Bypass project which are located adjacent to the proposed project. Please ensure these sites are not impacted by the work that is being proposed.

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Tribal Consultation

DOT-11 We recommend thorough consultation with the Native American Tribes throughout the life of the project.

Encroachment Permits

DOT-12 It does not appear that any work will take place within Caltrans right of way. However, if work will be proposed with state right of way, it will require an encroachment permit. Permit applications are reviewed for consistency with State standards and are subject to Department approval. To streamline the application and review process, we require the applicant consult with our Permit staff prior to application submittal.

Request for Permit applications can be sent to: Caltrans District 1 Permits Office, P.O. Box 3700, Eureka, CA 95502-3700, or requested by phone at (707) 463-4743.

We look forward to working with you as this project moves forward. Please feel free to contact me with any questions about the comments outlined in this letter or for further assistance: (707) 441-4540 or tatiana.ahlstrand@dot.ca.gov.

Sincerely,

TATIANA AHLSTRAND
Transportation Planning

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

3.3.1 Letter 2 Responses to Comments

Response to Comment DOT-1:

Comment noted and provided for consideration by the Lead Agency.

Response to Comment DOT-2:

A growth rate of 1%/year was used to develop opening year (2023) volumes. This rate was used based on a review of growth in the area. The growth rate of 1%/year is consistent with other projects completed in the region.

Response to Comment DOT-3:

The trip distribution was developed based the operational characteristics of the Project and the location of nearby land uses and freeway access. While some staff and visitor trips may begin or end in the City of Willits, it was assumed that a majority of the trips would begin or end outside of the City of Willits. As this Project is replacing a similar project in Ukiah, it was assumed that worker and visitor trips may come from the Ukiah area and would use US-101 access to the south of the site. In addition, the operational characteristics of the project require crew trips to be distributed throughout the region and would therefore need access to US-101, the closest access to which is south of the site.

Response to Comment DOT-4:

All intersection count data collected at Baechtel Road/Main Street is included in Appendix B of the report. In order to accommodate intersection LOS analysis, the data was collected in May 2019 on a Thursday on a non-holiday week. Data was collected in 15-minute increments for the 2-hour AM and PM peak period.

Response to Comment DOT-5:

The purpose of the traffic analysis was to identify intersection impacts. Impacts at an unsignalized intersection were identified if the intersection has an unacceptable level of service and meets peak hour signal warrants. Therefore, Signal Warrants 3A and 3B were run to determine if an impact occurred at an unsignalized intersection. As noted on Page 21 and Page 28 of the report, "Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization." While the traffic study determined that a traffic signal would mitigate the identified impact, the decision to install a traffic signal is outside the control of

the Project applicant. The traffic study acknowledges that all warrants should be evaluated in addition to regular monitoring of traffic conditions. Therefore, all traffic signal warrants should be reviewed at the time of any potential traffic signal installation.

Response to Comment DOT-6:

The Vistro file was forwarded to the District for their review. This file was built in Vistro 7.

Response to Comment DOT-7:

Comment noted and provided for consideration by the Lead Agency.

Response to Comment DOT-8:

Comment noted and provided for consideration by the Lead Agency.

Response to Comment DOT-9:

Hydraulic analysis will be prepared in support of Project development. It should be noted that the area identified in the comment will be retained as open space and no development will occur within the southeast corner of the site adjacent to East Hill Road.

Response to Comment DOT-10:

Willits Bypass environmental mitigation sites will not be impacted by Project construction or operations.

Response to Comment DOT-11:

Consultation with Native American Tribes has been completed. Refer to *Section 4.18.2 Regulatory Setting* in the Tribal Cultural Resources Section of the Draft IS/MND.

Response to Comment DOT-12:

No encroachment will occur on Caltrans right-of-way.

3.4 Letter 3 (RWQCB) – Gil Falcone, Senior Environmental Scientist, Supervisor Southern 401 Certification Unit, North Coast Regional Water Quality Control Board, received February 13, 2020

From: Coleman, Stephanie@DGS
To: Chris Stabenfeldt; Mark Morse
Subject: FW: CCC Willits Center SCH #2020019042
Date: Thursday, February 13, 2020 4:40:23 PM

FYI

STEPHANIE COLEMAN | Project Management and Development Branch | Environmental Section
Senior Environmental Planner | **Environmental Services** | o **916.376.1602** c **916-217-6185**| Stephanie.coleman@dgs.ca.gov

From: Falcone, Gil@Waterboards <Gil.Falcone@waterboards.ca.gov>
Sent: Thursday, February 13, 2020 3:52 PM
To: Coleman, Stephanie@DGS <Stephanie.Coleman@dgs.ca.gov>
Cc: Filak, Jordan@Waterboards <Jordan.Filak@Waterboards.ca.gov>; Harrington, Daniel@Wildlife <Daniel.Harrington@Wildlife.ca.gov>
Subject: CCC Willits Center SCH #2020019042

Dear Stephanie Coleman,

Thank you for the opportunity to comment on the California Conservation Corps, Willits Center State Clearinghouse CEQA Draft IS/MND #2020019042.

RWQCB-1

The Regional Water Board's Water Quality Control Plan for the North Coast Basin (Basin Plan) and the California Water Code define waters of the state as follows: "'Waters of the state' refers to any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code §13050 (e)." This definition is broader than that of "waters of the United States" and consequently should always be acknowledged and considered when determining impacts upon water resources.

RWQCB-2

Any adverse impacts to, or loss of, wetlands and waters of the state and their beneficial uses due to development and construction activities must be fully permitted and mitigated. Impacts to waters of the state should first be adequately evaluated to determine if the impacts can be avoided or minimized. All efforts to first avoid and second to minimize impacts to waters of the state must be fully exhausted prior to deciding to mitigate for their loss. If a project's impacts to waters of the state are deemed unavoidable, then compensatory mitigation (for acreage, function and value) will be necessary for any unavoidable impacts. We appreciate efforts within the planning and design of the project that have avoided impacts to aquatic resources. The IS/MND discusses mitigation for wetlands and Riparian communities through purchase at mitigation banks, however, we are not aware of any mitigation banks that have a service area that includes Willits, CA. Therefore, any mitigation of aquatic resources after all avoidance and minimization measures have been taken will need to be proposed with preference to onsite and in-kind if feasible and then if necessary other alternatives will be considered. Onsite mitigation for wetlands that would require years to become successful would need to be mitigated at a *greater* ratio than 1:1, please consult with the US Army Corps of Engineers mitigation ratio calculator and plan your site designs accordingly for any required mitigation.

RWQCB-3

Additionally, the wetland delineation appears to have been conducted on November 8, 2018, which is during a dry time of year when it may be very difficult to accurately identify and quantify wetland plant species. The State Water Board's Dredge and fill procedures that will be effective May 28, 2020, Section IV.A.2.a of the Procedures states that Water Board staff may require, on a case-by-case basis, supplemental field data from the wet season to substantiate dry season delineations. This is consistent with our current regional practice.

RQWCB-4

Generally, wet season delineations are more likely to be necessary in areas where wetland indicators are difficult to resolve. The ideal time to delineate a wetland is during the wet portion of the growing season of a normal climatic period. Otherwise, indicators provided in the Corps' delineation manuals must be relied on to identify wetland boundaries. Collection of supplemental information in certain situations is an accepted practice and is consistent with recommendations presented in the Corps regional supplements for wetland delineation, which recommends that practitioners return to the delineation site, if possible, during the "normal wet portion of the growing season" (Arid West Regional Supplement, pp. 58, 87, 104; Western Mountains, Valleys, and Coast Regional Supplement, pp. 66, 100) to resolve wetland indicators that were unresolved during the dry-season delineation. To avoid the risk of unanticipated project delays, we would suggest supplementing the dry season findings with wet season findings.

For additional information about dredge and fill permitting including applications, fees and submittals please visit our water quality certification program website:
https://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification/

I am happy to discuss our water quality permitting as the project progresses to that phase or anytime along the way should questions arise.

Thanks you again for the opportunity to comment on this valuable project for the California Conservation Corps in Willits.

Regards,

Gil

Gil Falcone

Sr. Environmental Scientist, M.S.
Supervisor Southern 401 Certification Unit
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403-1072

Voice (707) 576-2830
https://www.waterboards.ca.gov/northcoast/

3.4.1 Letter 3 Responses to Comments

Response to Comment RWQCB-1:

The RWQCB commented that the definition of Waters of the State is broader than that of Waters of the U.S. All references to aquatic resources throughout the IS/MND are phrased as "Waters of the U.S./State". It is the intention of the document to apply to all aquatic resources whether Waters of the U.S. or Waters of the State, and avoidance areas within the project have been designed to avoid Waters of the State (i.e. riparian areas), as well as Waters of the U.S. See Response to Comment RWQCB-3.

Response to Comment RWQCB-2:

Comment two discusses the need for avoidance and minimization as well as compensatory mitigation, and states that no mitigation banks are present within the project vicinity. Impacts to aquatic resources have been avoided and minimized to the extent feasible by designing the land use plan to incorporate a minimum 25-foot setback (where feasible) around all aquatic resources and a 50-foot setback around the central drainage corridor. Mitigation Measure BIO 7 in the Draft IS/MND lists several possible options for mitigation, including on-site and in-kind wetland habitat creation. The details of the proposed mitigation will be developed through consultation with the agencies as part of the permitting process. It is understood that RWQCB prefers on-site and in-kind wetland habitat creation; however, other agencies may prefer a different approach, and a mitigation strategy will need to be prepared to address all agency requirements. Please also see Reponses to Comments CDFW-1 and CDFW-5.

Response to Comment RWQCB-3:

Comment three states that the wetland delineation used to support the IS/MND was conducted during the dry season, and per the new State Dredge and Fill Procedures to be implemented in May 2020, supplemental data from the wet season may be needed to support the delineation. The delineation used to support the IS/MND received a PJD from the USACE on February 21, 2019 and is anticipated to be used in the Clean Water Act Section 404 permitting process as it is the most recent PJD for the site. However, in light of the Regional Board's comments and the pending new Dredge and Fill Procedures, supplemental data from a previous aquatic resources delineation will be used to determine the extent of Waters of the State and prepare the application for the RWQCB Water Quality Certification and the CDFW Streambed Alteration Agreement. This previous delineation was prepared for the property in March of 2016 by Gari Hulse-Stephens, Botanical Consultant. Survey work for the 2016 delineation was conducted in February and March of 2016 and received a PJD from the USACE on August 17, 2017. Cumulative precipitation for the 2015-2016 Water Year at March 1, 2016 was 114% of the 30-year normal for that date. Therefore, the conditions during the 2016 delineation were consistent with the request by the RWQCB to supplement the delineation used in the IS/MND with data collected during the wet season. The 2016 delineation identified 2.24 acres of wetlands and waters in comparison to the 1.07 acres identified in the delineation cited in the Draft IS/MND. This change is reflected in revised Mitigation Measure **BIO-7**.

Response to Comment RWQCB-4:

See response to Comment RWQCB-3.

3.5 Letter 4 (CNPS) – Jennifer Riddell, Co-President, Sanhedrin Chapter, California Native Plant Society, received February 14, 2020

Sanhedrin Chapter
Inland Mendocino and Lake Counties
sanhedrin.cnps.org
California Native Plant Society

California Native Plant Society

Date: February 14, 2020

To: Stephanie Coleman, Senior Environmental Planner, Department of General Services

From: Jennifer Riddell, Sanhedrin Chapter, California Native Plant Society

Regarding: California Conservation Corps, Willits Center (State Clearinghouse #2020019042)

The California Native Plant Society is a statewide organization dedicated to the preservation of native plants and their natural habitats, and to increasing understanding, appreciation, and horticultural use of native plants since 1965. The Sanhedrin Chapter of the California Native Plant Society comprises the inland part of Mendocino County and all of Lake County, and has been active in the area since 1981. Our members are composed of land managers, and both amateur and professional plant scientists.

We had an opportunity to briefly view the plans and environmental document for the East Hill Road CCC development project just west of the Willits Bypass and just east of the Southern Pacific Railroad line on East Hill Road, Willits, Mendocino County, CA.

CNPS-1 We are concerned that the amount of acreage that the USACE accepted in their PJD in 2017 (file number 2017-00049- final map produced by the Corps August 17, 2017) was twice the acreage that was determined as wetlands in this report.

CNPS-2 We are also concerned about setbacks from wetland features as shown on the site development map. It is difficult to determine the scale of the accompanying site plan map (100ft to inch) printed on a 8.5 x 11 or an 11 x 17 format. We are not sure but it appears that setbacks from the wetland would be 10 to 12 feet if it is the former or approximately 25 feet if it is the latter. We would like to see a 50-foot setback in this case because this type of seasonal wetland system is supported by cross-field flows and events that charge them are flashy, developing and spreading during and shortly after storms. A larger buffer supports this natural expansion, flow and contraction that connects wetland features.

Additionally, care should be taken in creating crossings in the middle of seasonal wetland features. If these kinds of wetlands are bisected or linked only by a pipe under a road the integrity of the system would be compromised.

Sincerely,

Jennifer Riddell
Co-President, Sanhedrin Chapter, California Native Plant Society

Protecting California's native flora since 1965

2707 K Street, Suite 1 Sacramento, CA 95816-5113 • Tel: (916) 447-2677 • www.cnps.org

Sanhedrin Chapter 725 Vichy Hills Drive, Ukiah CA 95482

3.5.1 Letter 4 Responses to Comments

Response to Comment CNPS-1:

This comment states that the delineation used to support the IS/MND differed from a previous delineation which was verified by USACE in 2017. The delineation used to support the IS/MND received a PJD from the USACE on February 21, 2019. Therefore, the delineation with the most current PJD was used in support of the analysis in this Initial Study. However, based on this and other comments, data from the 2016 delineation will be used to determine the extent of Waters of the State and to support permitting under state regulations (e.g. Streambed Alteration Agreement and Water Quality Certification; see Response to Comment RWQCB-3 and CDFW-1).

Response to Comment CNPS-2:

CNPS commented that the setbacks from aquatic resources should be expanded to 50 feet. Currently, a 50-foot setback from the North Coast semaphore grass is proposed in the Project Site Plan, and 25- (where feasible) to 50-foot setbacks from the aquatic resources (setbacks are 25 feet around smaller drainages to the southeast, and 50 feet around the larger riparian corridor through the center of the Project). Also see Response to Comments CDFW-1 and CDFW-5.

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SECTION 4.0 REVISIONS TO THE DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

As a result of minor Project changes and comments received on the Draft IS/MND, revisions have been made to the Draft IS/MND text. These revisions include minor changes to the Project Description, clarification of impacts and minor revisions to mitigation measures, and do not constitute substantial revisions that would require recirculation of the document. According to Section 15073.5 of the CEQA Guidelines, "a substantial revision shall mean:

(1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or
(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required."

The revisions are provided below. Changes in text are identified by ~~strikeout~~ where text is removed and by underline where text is added.

Section 4.4 Biological Resources

The following text was added/revised based on comments received within the CDFW letter:

Page 4-42, Invertebrates Paragraph:

Invertebrates

No special-status invertebrate species were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*); however, the western bumble bee is a candidate for listing as endangered under the California Endangered Species Act (CESA). ~~No further discussion of invertebrate species is provided in this analysis.~~

Western Bumble Bee

The western bumble bee (*Bombus occidentalis*) is a candidate for listing as endangered under the California Endangered Species Act (CESA). The western bumble bee was once common in the western United States but is now absent across much of its historic range (Xerxes 2018). In California, the species is largely restricted to high elevation sites in the Sierra Nevada (Xerxes 2018 although there have been a couple observations on the northern California coast (Xerces 2018). The species inhabits meadows and grasslands with abundant floral resources, and primarily nests underground in cavities created by ground dwelling animals although a few nests have been reported above-ground in logs or among railroad ties (Xerxes 2018). Little is known about specific overwintering sites, but bumble bees generally overwinter in soft, disturbed soils or under leaf litter or other debris (Goulson 2010, Williams et al. 2014). The species visits a wide variety of flowering plants, but its short tongue is most suitable for foraging at open flowers with short corollas (Xerxes 2018). The flight period for queens in California is from early February to late November (Thorpe et al. 1983). The flight period for workers and males in California is from early April to

early November (Thorpe et al. 1983). Significant threats are posed to the survival of this species by modification or destruction of its habitat, overexploitation, competition, disease, pesticide use, population dynamics and structure, and global climate change (Xerxes 2018).

There are no CNDDB documented occurrences of western bumble bee within five miles of the Project site (CDFW 2020). The grassland community on the Project site provides marginally suitable habitat for this species. Western bumble bee has low potential to occur onsite.

Page 4-4, Birds Paragraph

Birds

There are seven special-status bird species that were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). Upon further analysis and after the reconnaissance site visit, ~~four~~ two species were considered to be absent from the Project Site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis. A brief description of the remaining ~~three~~ five special-status bird species that have the potential to occur within the Project Site is presented below.

White-tailed Kite

White-tailed kite (Elanus leucurus) is not listed pursuant to either the California or federal Endangered Species Acts; however, the species is fully protected pursuant to Section 3511 of the California Fish and Game Code. This species is a common resident in the Central Valley and the entire length of the California coast, and all areas up to the Sierra Nevada foothills and southeastern deserts (Dunk 1995). In northern California, white-tailed kite nesting occurs from March through early August, with nesting activity peaking from March through June. Nesting occurs in trees within riparian, oak woodland, savannah, and agricultural communities that are near foraging areas such as low elevation grasslands, agricultural, meadows, farmlands, savannahs, and emergent wetlands (Dunk 1995).

There are no CNDDB documented occurrences of white-tailed kite within five miles of the Project site (CDFW 2020). Trees within the riparian community on the Project site provide suitable nesting habitat for this species. White-tailed kite has potential to occur onsite.

Grasshopper Sparrow

The grasshopper sparrow (Ammodramus savannarum) is not listed pursuant to either the California or federal Endangered Species Acts, but it is designated as a species of special concern by the CDFW. The grasshopper sparrow is an uncommon and local, summer resident and breeder along the western edge of the Sierra Nevada and most coastal counties south to Baja California (Small 1994, Vickery 1996). This species generally inhabits moderately open grasslands and prairies with patchy bare ground and scattered shrubs (Vickery 1996). Grasshopper sparrows are more likely to occupy large tracts of habitat than small fragments (Samson 1980, Herkert 1994a, Vickery et al. 1994 as cited in Vickery 1996). Breeding generally occurs from early May through August.

There are no CNDDB documented occurrences of grasshopper sparrow within five miles of the Project site (CDFW 2020). The annual grassland community on the Project site provides suitable nesting habitat for this species. Grasshopper sparrow has potential to occur onsite.

Page 4-55, Invertebrates and Fish Paragraph

Invertebrates and Fish

The Project Site does not provide suitable habitat for any currently listed special-status invertebrate or fish. Therefore, there would be no impact and these species are not discussed further.

Page 4-55, Birds Paragraph

Birds

Suitable nesting and/or wintering and foraging habitat for white-tailed kite, sharp-shinned hawk, yellow-grasshopper sparrow, breasted chat, and yellow warbler is present on the Project Site. If nesting individuals are present during construction, the Project could result in harassment to nesting individuals and may temporarily disrupt foraging activities.

Page 4-59, Last Paragraph

As discussed above, depending on final design, Project development is expected to result in the permanent loss ~~of up to ±0.027 acre~~ of seasonal wetland and 0.003 acre of non-wetland Waters of the US. This loss would be considered a potentially significant impact. This impact can be reduced to less than significant with implementation of Mitigation Measure **BIO-7.**

Page 1-2 First Paragraph and Page 4-60 Last Paragraph

BIO-1: Conduct Pre-Construction Sensitive Plant Surveys. The following shall be conducted prior to initiation of Project construction:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species. If additional special-status plant species are found during surveys within the Project Site (aside from the two mapped populations of Northern Semaphore grass) and avoidance of the species is not possible, seed collection, transplantation, and/or other conservation approaches ~~may~~ shall be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations. If no additional special-status plants are found on the Project Site, no further measures pertaining to special-status plants are necessary.

Page 1-4 First Paragraph and Page 4-62 Last Paragraph

BIO-7: Compensate for the Permanent Loss of Wetlands/Waters of the United States/Waters of the State. To compensate for the permanent loss of ~~±0.027 acre of~~ Waters of the U.S./State, DGS shall obtain Section 404 and 401 Permits from the USACE and RWQCB and either create replacement wetland habitat

or purchase credits at an agency-approved mitigation bank to ensure no net loss of wetland functions and values. The wetland compensation ratio will be a minimum of 1:1 (one acre of wetland habitat credit for every one acre of impact) to ensure no net loss of wetland habitat functions and values. The DGS will also implement the conditions and requirements of state and federal permits that will be obtained for the Proposed Project. The actual mitigation ratio and associated credit acreage may be modified based on final design and USACE and RWQCB permitting which will dictate the ultimate compensation for permanent impacts to Waters of the U.S./ State. Alternatively, DGS shall provide a Wetland Habitat Mitigation Plan for USACE and RWQCB approval that identifies appropriate wetland creation, success criteria and monitoring and reporting requirements consistent with the Project's Section 404 and 401 Permit conditions. Furthermore, existing data from a previous delineation conducted during the wet season in 2016 will be used to determine the extent of Waters of the State under the pending new State Dredge and Fill Procedures, and to support preparation of the application for a Water Quality Certification and Streambed Alteration Agreement.

Figures

Figure 4.4-4. Biological Constraints Page 4-56.

Figure 4.4-4. has been changed to reflect the expansion of the sensitive resources buffer as well as inclusion of this buffer into the key on the right-hand side of the graphic.

Map Features

- Project Area
- Impacted Wetlands
- Potentially Impacted Wetlands
- Sensitive Resources Buffer

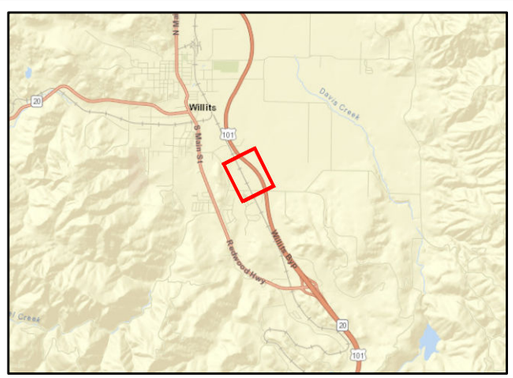
Plants

- North Coast Semaphore Grass

Aquatic Resources

- Adjacent Seasonal Wetlands
- Seasonal Wetland Depressions
- Non-Wetland Waters

Sources: ESRI, LSA, NMR Design



ECORP- N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\sss_survey_and_mapping\Ukiah_BRA_BioResources_20190613_wSitePlan.mxd (JDS/CCH)-JSwager 3/3/2020

Map Date: 3/3/2020

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 200

DRAFT

Figure 4.4-4. Biological Constraints

2018-116.005 CCC Willits Center

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SECTION 5.0 MITIGATION MONITORING AND REPORTING PLAN

5.1 Introduction

In accordance with CEQA, an MND that identifies adverse impacts related to the construction activity for the California Conservation Corps, Willits Center was prepared. The MND identifies mitigation measures that would reduce or eliminate these impacts.

Section 21081.6 of the Public Resources Code and Sections 15091(d) and 15097 of the State CEQA Guidelines require public agencies to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. A MMRP is required for the Proposed Project, because the IS/MND identified potentially significant adverse impacts related to construction and operation of the proposed Project, and mitigation measures have been identified to mitigate these impacts. Adoption of the MMRP will occur along with approval of the Proposed Project.

5.2 Purpose of the Mitigation Monitoring and Reporting Plan

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the Proposed Project, as required. The MMRP may be modified by the California Conservation Corps or DGS/RESD during project implementation, as necessary, in response to changing conditions or other project refinements. **Table 5-1** has been prepared to assist the responsible parties in implementing the MMRP. This table identifies the category of significant environmental impact(s), individual mitigation measures, monitoring and mitigation timing, responsible person/agency for implementing the measure, monitoring and reporting procedure, and notation space to confirm implementation of the mitigation measures. The numbering of the mitigation measures follows the numbering sequence in the IS/MND.

5.3 Roles and Responsibilities

The California Department of General Services (DGS) is responsible for oversight of compliance of the mitigation measures in the MMRP.

5.4 Mitigation Monitoring and Reporting Plan

The column categories identified in the MMRP table (**Table 5-1**) are described below.

- **Mitigation Measure** – This column lists the mitigation measures by number.
- **Monitoring Activity/Timing/Frequency/Schedule** – This column lists the activity to be monitored for each mitigation measure, the timing of each activity, and the frequency/schedule of monitoring for each activity.

- **Implementation Responsibility/Verification** – This column identifies the entity responsible for complying with the requirements of the mitigation measure, and provides space for verification initials and date.
- **Responsibility for Oversight of Compliance/Verification** – This column provides the agency responsible for oversight of the mitigation implementation, and is to be dated and initialed by the agency representative based on the documentation provided by the construction contractor or through personal verification by agency staff.
- **Outside Agency Coordination** – this column lists any agencies with which DGS may coordinate for implementation of the mitigation measure.
- **Comments** – this column provides space for written comments, if necessary.

Table 5-1
California Conservation Corps, Willits Center
Mitigation Monitoring and Reporting Program

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
BIO-1: Conduct Pre-Construction Sensitive Plant Surveys The following shall be conducted prior to initiation of Project construction: • Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species. If additional special-status plant species are found during surveys within the Project Site (aside from the two mapped populations of Northern Semaphore grass) and avoidance of the species is not possible, seed collection, transplantation, and/or other conservation approaches shall be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations. If no additional special-status plants are found on the Project Site, no further measures pertaining to special-status plants are necessary.	**Action:** Sensitive plant surveys **Timing:** Designate Approved Biologist: Prior to construction activity. Surveys: Prior to the start of construction, during blooming period for target species.	Project Biologist _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	USFWS, CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
BIO-2: Conduct Pre-Construction Sensitive Amphibians Surveys The following shall be conducted prior to initiation of Project construction: • Conduct pre-construction surveys for foothill yellow-legged frog and red-bellied newt where construction occurs near potential habitat. If either species is observed, consultation with CDFW is required prior to initiation of construction activities. No monofilament plastic mesh or line shall be used for erosion control where habitat for foothill yellow-legged frog is identified, to reduce the risk of entrapment during construction. • Silt fencing that will not be disturbed will be installed around suitable habitat for foothill yellow-legged frog and red-bellied newt, and fencing will be inspected daily to ensure no individuals are trapped along the fence.	**Action:** Sensitive Amphibians Surveys, Installation of exclusionary fencing **Timing:** Prior to the start of construction	Project Biologist _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	USFWS, CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
BIO-3: Conduct Pre-Construction Northwestern Pond Turtle Surveys The following shall be conducted prior to initiation of Project construction: • Conduct a pre-construction Northwestern pond turtle survey within 24 hours prior to the initiation of construction activities and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If Northwestern pond turtle is found, consultation with CDFW is required, as well as the development of a relocation plan for Northwestern pond turtles encountered during construction.	**Actions:** Northwestern Pond Turtle Surveys **Timing:** Survey: within 24 hour prior to the initiation of construction activities Notification of Trustee Agency: within 24 hours of Northwestern pond turtle being found	Project Biologist _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	USFWS, CDFW	
BIO-4: Conduct Pre-Construction Bird Nesting Surveys The following shall be conducted prior to initiation of Project construction: • Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on and adjacent to the Project Site as described below within 14 days of commencement of construction during the nesting season (February 1 – August 31). Surveys should be conducted within 300 feet of the Project Site for	**Actions:** Nesting Raptor and Bird Surveys **Timing:** Should construction occur during nesting season (February 1 – August 31), surveys shall occur within 14 days of commencement of	Project Biologist _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	USFWS, CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
nesting raptors, including sharp-shinned hawk, and 100 feet of the Project Site for nesting birds. • A no-disturbance buffer around the nest shall be established if active nests are found. The buffer distance shall be established by a qualified biologist and is recommended to be 300 feet for raptors and 50 feet for non-raptor songbirds. If an active sharp-shinned hawk, yellow-breasted chat, or yellow warbler nest is found, the no-disturbance buffer shall be determined through consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest. Pre-construction nesting surveys are not required for construction activity outside the nesting season.	construction				
BIO-5: Conduct Pre-Construction Sensitive Mammal Surveys Implement the following prior to initiation of project construction: • Conduct a pre-construction American badger survey within 48 hours prior to construction activities. Consultation with CDFW is required prior to initiation of construction activities if American badgers are	**Actions:** Sensitive Mammal Surveys, habitat assessments **Timing:** American badger: Within 48 hours prior to construction activities	Project Biologist _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	USFWS, CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
found. • Conduct a pre-construction survey for Ringtail. Consultation with CDFW is required prior to initiation of construction activities if potential den sites are located that will not be avoided by construction. No further measures are necessary if no potential den sites are found during the survey. • Prior to work within potentially suitable bat roosting habitat, a bat habitat assessment is recommended for all suitable roosting habitat (i.e., manmade structures and suitable trees, if present). If the assessment identifies moderate to highly suitable roosting habitat, a qualified biologist will conduct an evening bat emergence survey that may include acoustic monitoring to determine whether or not bats are present. If Townsend's big-eared bats are found, consultation with CDFW is required prior to initiation of construction activities. No further measures are necessary if no suitable roosting habitat is found, or if bats are not found during the emergence surveys.	Ringtail: Through consultation with CDFW prior to construction activity Bats: Prior to construction activity				

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
BIO-6: Compensate for the Loss of Riparian Communities • To compensate for the total loss of ±0.006 acre of riparian habitat, prior to construction the Department of General Services (DGS) shall obtain a CDFW Section 1602 Permit and either create riparian habitat or purchase credits at an approved mitigation bank to ensure no net loss of riparian habitat functions and values. If purchasing mitigation credits, a 3:1 ratio will be employed, which would require a total of approximately 0.018 acre of riparian habitat credits from an agency approved mitigation bank. This ratio and acreage will be confirmed during the review of future engineering drawings and may be modified during the CDFW Section 1602 permitting process (if actual increase or decrease), which will dictate the ultimate compensation. The DGS will provide written evidence to the resource agencies that compensation has been established through the purchase of mitigation credits. The amount to be paid will be the fee that is in effect at the time the fee is paid. Alternatively, DGS shall provide a Riparian Habitat Mitigation Plan for CDFW approval that identifies appropriate habitat creation, success criteria and monitoring and reporting requirements consistent with the Project's 1602 Permit conditions.	**Actions:** Compensation for loss of riparian habitat **Timing:** Prior to construction	DGS/RESD _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
BIO-7: Compensate for the Permanent Loss of Wetlands/Waters of the United States/Waters of the State. • To compensate for the permanent loss of Waters of the U.S./State, DGS shall obtain Section 404 and 401 Permits from the USACE and RWQCB and either create replacement wetland habitat or purchase credits at an agency-approved mitigation bank to ensure no net loss of wetland functions and values. The wetland compensation ratio will be a minimum of 1:1 (one acre of wetland habitat credit for every one acre of impact) to ensure no net loss of wetland habitat functions and values. The DGS will also implement the conditions and requirements of state and federal permits that will be obtained for the Proposed Project. The actual mitigation ratio and associated credit acreage may be modified based on final design and USACE and RWQCB permitting which will dictate the ultimate compensation for permanent impacts to Waters of the U.S./ State. Alternatively, DGS shall provide a Wetland Habitat Mitigation Plan for USACE and RWQCB approval that identifies appropriate wetland creation, success criteria and monitoring and reporting requirements consistent with the Project's Section 404 and 401 Permit conditions. Furthermore, existing data from a	**Actions:** Compensation for loss of Waters of the U.S./Waters of the State **Timing:** Prior to construction	DGS/RESD _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	CDFW	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
previous delineation conducted during the wet season in 2016 will be used to determine the extent of Waters of the State under the pending new State Dredge and Fill Procedures, and to support preparation of the application for a Water Quality Certification and Streambed Alteration Agreement.					
CUL-1: Implement Measures to Protect Unanticipated Cultural Resources Discoveries Awareness Training and Monitoring • A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall provide pre-construction cultural resources awareness training to all construction personnel. Training will include appropriate protocol following the unanticipated discovery of any archaeological deposits during construction. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activity associated with the Project. **Stop Work for Unanticipated Discoveries and Evaluate the Find** If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt	**Actions:** Implement unanticipated discoveries protocol **Timing:** Ongoing and as needed during construction activities	Project Archaeologist, Construction Manager _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date	CRHR, County Medical Examiner, NAHC	

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
within a 50-foot radius of the discovery. The qualified archaeologist shall be called upon to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: • If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. • If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify RESD. RESD shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the CRHR. Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the site either: 1) is not eligible for or CRHR; or 2) that the treatment measures have been completed to its satisfaction. • If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Mendocino					

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
County Medical Examiner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, the Medical Examiner will notify the NAHC, who then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If RESD does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, RESD must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.					

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
GEO-1: Discovery of Unknown Paleontological Resources • If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until RESD is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. In addition, in the event of an inadvertent find, sediment samples should be collected and processed to determine the small fossil potential on the Project Site. If RESD resumes work in a location where paleontological remains have been discovered and cleared, RESD will have a paleontologist onsite to observe any continuing excavation to confirm that no additional paleontological resources are in the area. Any fossil materials uncovered during mitigation activities should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.	**Actions:** Implement operator training as described in Mitigation Measure GEO-1. Notify DGS/RESD in the event of a discovery. Suspend work in the area of discovery. Notify Qualified Archaeologist. Implement appropriate treatment of found materials. **Timing:** Prior to ground-disturbing activities and ongoing as needed	Project Paleontologist, Equipment Operators _____ Initials _____ Date	DGS/RESD _____ Initials _____ Date		

Mitigation Measure	Implementation Actions and Timing	Implementation Responsibility	Responsibility for Oversight of Compliance/ Verification	Agency Coordination	Comments
TRANS-1: Pay Fair Share for Signal Improvements • The Project applicant shall pay their fair share toward the installation of a traffic signal at the intersection of Main Street and Baechtel Road.	**Actions:** Pay Fair share for signal improvements **Timing:** Before Willits Center begins post-construction operations	DGS/RESD, City of Willits Initials Date	DGS/RESD Initials Date		
TCR-1: Implement MM CUL-1	**Actions and Timing:** Refer to Mitigation Measure CUL-1, above.	Project Archaeologist Initials Date	DGS/RESD Initials Date	CRHR, County Medical Examiner, NAHC	

To be signed when all mitigation measures have been completed:

Department of General Services
Signature
<Lead Agency Contact>
Printed Name
Date

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SECTION 6.0 LIST OF ATTACHMENTS

Attachment A – Notice of Intent

Attachment B – Proof of Publication

Attachment C – Draft Initial Study and Mitigated Negative Declaration for the California Conservation Corps, Willits Center

ATTACHMENT A

Notice of Intent

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND INITIAL STUDY

DATE: January 15, 2020

TO: Responsible Agencies, Interested Parties, and Organizations

SUBJECT: **California Conservation Corps, Willits Center Project — CITY OF WILLITS, MENDOCINO COUNTY**

The California Conservation Corps (CCC) is the California Environmental Quality Act (CEQA) Lead Agency for the proposed CCC Willits Center Project (Proposed Project). CCC has directed the preparation of an Initial Study (IS) Mitigated Negative Declaration (MND) in compliance with CEQA.

Project Location: The Proposed Project is located 440 East Hill Road, Willits, CA. The Project Site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the City of Willits, Mendocino County, California within Assessor's Parcel Numbers (APNs) 007-160-18 and 007-100-28.

Project Description: The California Conservation Corps (CCC) Willits Center (proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photo voltaic array.

The facility is designed based on the prototype and CCC's residential needs to house 100 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

Potentially Significant Environmental Impacts: Potentially significant impacts to biological resources, cultural resources, geology and soils, and transportation were identified in the Initial Study. All impacts would be reduced to a less than significant level with the implementation of identified mitigation measures.

Hazardous Waste Sites: Pursuant to Section 15087(c)(6) of the Guidelines for California Environmental Quality Act, CCC acknowledges the non-existence of hazardous waste sites within the project area reviewed by this Mitigated Negative Declaration (MND).

IS/MND Document Review and Availability: The public review and comment period for the IS/MND will extend for 30 days **starting January 15, 2020 and ending February 14, 2020**. The IS/MND is available for public review at the following locations:

- Department of General Services Real Estate Services Division, 707 Third Street, 4th Floor, West Sacramento, CA 95605 (8:00 A.M. to 5:00 P.M., Monday through Friday)

- Willits City Hall, 111 E Commercial St, Willits, CA 95490 (8:00 A.M. to 5:00 P.M., Monday through Friday)

The IS/MND can also be viewed and/or downloaded at the following website:

www.ecorpconsulting.com/docs/CCC-Willits-Center-Draft-ISMND-WITH-APPENDICES.pdf

Comments/Questions: Comments and/or questions regarding the IS/MND may be directed to: Stephanie Coleman, Senior Environmental Planner, State of California Department of General Services, Real Estate Services Division, 707 Third Street, 4th Floor, West Sacramento, CA 95605 or Stephanie.coleman@dgs.ca.gov

ATTACHMENT B

Proof of Publication

The Willits News
77 W Commercial Street
PO Box 628
Willits, CA 95490
707-459-4643

3822658

ECORP CONSULTING, INC.
2525 WARREN DRIVE
ROCKLIN, CA 95677

Legal No. **0006445995**

PROOF OF PUBLICATION

STATE OF CALIFORNIA
COUNTY OF MENDOCINO

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of The Willits News, a newspaper of general circulation, printed and published Every Wednesday and Friday in the City of Willits, California, County of Mendocino, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Mendocino, State of California, in the year 1903, Case Number 9150; that the notice of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

01/15/2020

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Dated at Willits, California this 15th day of January, 2020.

Signature

WN20-230
DATE: January 15, 2020

TO: Responsible Agencies, Interested Parties, and Organizations

SUBJECT: California Conservation Corps, Willits Center Project – CITY OF WILLITS, MENDOCINO COUNTY

The California Conservation Corps (CCC) is the California Environmental Quality Act (CEQA) Lead Agency for the proposed CCC Willits Center Project (Proposed Project). CCC has directed the preparation of an Initial Study (IS) Mitigated Negative Declaration (MND) in compliance with CEQA.

Project Location: The Proposed Project is located 440 East Hill Road, Willits, CA. The Project Site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the City of Willits, Mendocino County, California within Assessor's Parcel Numbers (APNs) 007-160-18 and 007-100-28.

Project Description: The California Conservation Corps (CCC) Willits Center (proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photo voltaic array.

The facility is designed based on the prototype and CCC's residential needs to house 100 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

Potentially Significant Environmental Impacts: Potentially significant impacts to biological resources, cultural resources, geology and soils, and transportation were identified in the Initial Study. All impacts would be reduced to a less than significant level with the implementation of identified mitigation measures.
Hazardous Waste Sites: Pursuant to Section 15087(c)(6) of the Guidelines for California Environmental Quality Act, CCC acknowledges the non-existence of hazardous waste sites within the project area reviewed by

this Mitigated Negative Declaration (MND).

IS/MND Document Review and Availability: The public review and comment period for the IS/MND will extend for 30 days starting January 15, 2020 and ending February 14, 2020. The IS/MND is available for public review at the following locations:

- Department of General Services Real Estate Services Division, 707 Third Street, 4th Floor, West Sacramento, CA 95605 (8:00 A.M. to 5:00 P.M., Monday through Friday)
- Willits City Hall, 111 E Commercial St, Willits, CA 95490 (8:00 A.M. to 5:00 P.M., Monday through Friday)

The IS/MND can also be viewed and/or downloaded at the following website:

www.ecorpconsulting.com/docs/CCC-Willits-Center-Draft-ISMND-WITH-APPENDICES.pdf

Comments/Questions: Comments and/or questions regarding the IS/MND may be directed to: Stephanie Coleman, Senior Environmental Planner, State of California Department of General Services, Real Estate Services Division, 707 Third Street, 4th Floor, West Sacramento, CA 95605 or Stephanie.coleman@dgs.ca.gov.

1/15/2020

ATTACHMENT C

Draft Initial Study and Mitigated Negative Declaration for the California Conservation Corps, Willits Center

DRAFT

Initial Study and Mitigated Negative Declaration for the California Conservation Corps, Willits Center

January 2020

Lead Agency:

California Conservation Corps
1719 24th Street
Sacramento, California 95816

Prepared for:

State of California Department of General Services
Real Estate Services Division
707 Third Street, 4th Floor
West Sacramento, California 95605

Prepared by:

2525 Warren Drive
Rocklin, California 95677

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DRAFT MITIGATED NEGATIVE DECLARATION
CALIFORNIA CONSERVATION CORPS, WILLITS CENTER

Lead Agency:	California Conservation Corps
Project Proponent:	State of California Department of General Services – Real Estate Services Division
Project Location:	440 East Hill Road, Willits, CA. The Project Site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the City of Willits, Mendocino County, California within Assessor's Parcel Numbers (APNs) 007-160-18 and 007-100-28.

Project Description

The California Conservation Corps (CCC) Willits Center (Proposed Project or Center) involves development of a new CCC operations center at 440 East Hill Road in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The proposed 27.7-acre Willits Center site is located north of East Hill Road, bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the town of Willits, Mendocino County. The Project consists of a new CCC residential center that includes a total of approximately 64,000 square feet (sf) of new building construction. The Center will include 12 buildings consisting of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area and solar photovoltaic array.

The facility would be designed based on the prototype and CCC's residential needs to house 120 permanent Corpsmembers. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order (EO) B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

Public Review Period: January 15, 2020 – February 14, 2020

Mitigation Measures Incorporated into the Project to Avoid Significant Effects

The following mitigation measures identified in the Initial Study are required to ensure project impacts are reduced to less than significant.

Biological Resources

BIO-1: Conduct Pre-Construction Sensitive Plant Surveys. The following shall be conducted prior to initiation of Project construction:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species. If additional special-status plant species are found during surveys within the Project Site (aside from the two mapped populations of Northern Semaphore grass) and avoidance of the species is not possible, seed collection, transplantation, and/or other conservation approaches may be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations. If no additional special-status plants are found on the Project Site, no further measures pertaining to special-status plants are necessary.

BIO-2: Conduct Pre-Construction Sensitive Amphibians Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct pre-construction surveys for foothill yellow-legged frog and red-bellied newt where construction occurs near potential habitat. If either species is observed, consultation with CDFW is required prior to initiation of construction activities. No monofilament plastic mesh or line shall be used for erosion control where habitat for foothill yellow-legged frog is identified, to reduce the risk of entrapment during construction
- Silt fencing that will not be disturbed will be installed around suitable habitat for foothill yellow-legged frog and red-bellied newt, and fencing will be inspected daily to ensure no individuals are trapped along the fence.

BIO-3: Conduct Pre-Construction Northwestern pond turtle surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction Northwestern pond turtle survey within 24 hours prior to the initiation of construction activities and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If Northwestern pond turtle is found, consultation with CDFW is required, as well as the development of a relocation plan for Northwestern pond turtles encountered during construction.

BIO-4: Conduct Pre-Construction Bird Nesting Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on and adjacent to the Project Site as described below within 14 days of commencement of construction during the nesting season (February 1 – August 31). Surveys should be conducted within 300 feet of the Project Site for nesting raptors, including sharp-shinned hawk, and 100 feet of the Project Site for nesting birds.

A no-disturbance buffer around the nest shall be established if active nests are found. The buffer distance shall be established by a qualified biologist and is recommended to be 300 feet for raptors and 50 feet for non-raptor songbirds. If an active sharp-shinned hawk, yellow-breasted chat, or yellow warbler nest is found, the no-disturbance buffer shall be determined through consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest. Pre-construction nesting surveys are not required for construction activity outside the nesting season.

BIO-5: Conduct Pre-Construction Sensitive Mammal Surveys. Implement the following prior to initiation of project construction:

- Conduct a pre-construction American badger survey within 48 hours prior to construction activities. Consultation with CDFW is required prior to initiation of construction activities if American badgers are found.
- Conduct a pre-construction survey for Ringtail. Consultation with CDFW is required prior to initiation of construction activities if potential den sites are located that will not be avoided by construction. No further measures are necessary if no potential den sites are found during the survey.
- Prior to work within potentially suitable bat roosting habitat, a bat habitat assessment is recommended for all suitable roosting habitat (i.e., manmade structures and suitable trees, if present). If the assessment identifies moderate to highly suitable roosting habitat, a qualified biologist will conduct an evening bat emergence survey that may include acoustic monitoring to determine whether or not bats are present. If Townsend's big-eared bats are found, consultation with CDFW is required prior to initiation of construction activities. No further measures are necessary if no suitable roosting habitat is found, or if bats are not found during the emergence surveys.

BIO-6: Compensate for the Loss of Riparian Communities. To compensate for the total loss of ±0.006 acre of riparian habitat, prior to construction the Department of General Services (DGS) shall obtain a CDFW Section 1602 Permit and either create riparian habitat or purchase credits at an approved mitigation bank to ensure no net loss of riparian habitat functions and values. If purchasing mitigation credits, a 3:1 ratio will be employed, which would require a total of approximately 0.018 acre of riparian habitat credits from an agency approved mitigation bank. This ratio and acreage will be confirmed during the review of future engineering drawings and may be modified during the CDFW Section 1602 permitting process (if actual increase or decrease), which will dictate the ultimate compensation. The DGS will provide written evidence to the resource agencies that compensation has been established through the purchase of mitigation credits. The amount to be paid will be the fee that is in effect at the time the fee is paid. Alternatively, DGS shall provide a Riparian Habitat Mitigation Plan for CDFW approval that identifies appropriate habitat creation, success criteria and monitoring and reporting requirements consistent with the Project's 1602 Permit conditions.

BIO-7: Compensate for the Permanent Loss of Wetlands/Waters of the United States/Waters of the State. To compensate for the permanent loss of ±0.027 acre of Waters of the U.S./State, DGS shall obtain Section 404 and 401 Permits from the USACE and RWQCB and either create replacement wetland habitat or purchase credits at an agency-approved mitigation bank to ensure no net loss of wetland functions and values. The wetland compensation ratio will be a minimum of 1:1 (one acre of wetland habitat credit for every one acre of impact) to ensure no net loss of wetland habitat functions and values. The DGS will also implement the conditions and requirements of state and federal permits that will be obtained for the Proposed Project. The actual mitigation ratio and associated credit acreage may be modified based on final design and USACE and RWQCB permitting which will dictate the ultimate compensation for permanent impacts to Waters of the U.S./ State. Alternatively, DGS shall provide a Wetland Habitat Mitigation Plan for USACE and RWQCB approval that identifies appropriate wetland creation, success criteria and monitoring and reporting requirements consistent with the Project's Section 404 and 401 Permit conditions.

Cultural Resources

CUL-1: Implement Measures to Protect Unanticipated Cultural Resources Discoveries Awareness Training and Monitoring. A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall provide pre-construction cultural resources awareness training to all construction personnel. Training will include appropriate protocol following the unanticipated discovery of any archaeological deposits during construction. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activity associated with the Project.

Stop Work for Unanticipated Discoveries and Evaluate the Find

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 50-foot radius of the discovery. The qualified archaeologist shall be called upon to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify RESD. RESD shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the CRHR. Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the site either: 1) is not eligible for or CRHR; or 2) that the treatment measures have been completed to its satisfaction.

- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Mendocino County Medical Examiner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, the Medical Examiner will notify the NAHC, who then will designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If RESD does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, RESD must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

Geology and Soils (Paleontological Resources)

GEO-1: Discovery of Unknown Paleontological Resources. If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until RESD is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. In addition, in the event of an inadvertent find, sediment samples should be collected and processed to determine the small fossil potential on the Project Site. If RESD resumes work in a location where paleontological remains have been discovered and cleared, RESD will have a paleontologist onsite to observe any continuing excavation to confirm that no additional paleontological resources are in the area. Any fossil materials uncovered during mitigation activities should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

Transportation

TRANS-1: Pay Fair Share for Signal Improvements. The Project applicant shall pay their fair share toward the installation of a traffic signal at the intersection of Main Street and Baechtel Road.

Tribal Cultural Resources

To ensure less-than-significant impacts to tribal cultural resources, the Tribal Cultural Resources section requires implementation of Mitigation Measure **CUL-1** to ensure less-than-significant impacts. For the full text of Mitigation Measure **CUL-1**, see Cultural Resources above.

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CONTENTS

LIST OF APPENDICES

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ACRONYMS AND ABBREVIATIONS

2005 PM Plan	2005 Particulate Matter Attainment Plan
AB	Assembly Bill
ACS	American Community Survey
ADA	Americans with Disabilities Act of 1990
AOU	American Ornithologists' Union
APN	Assessor's Parcel Number
BA	Biological Assessment
BIOS	Biogeographic Information and Observation System
BLM	Bureau of Land Management's
BMPs	Best Management Practices
BRA	Biological Resource Assessment
Btu	British thermal units
CalEEMod	California Emissions Estimator Model
CalGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCC	California Conservation Corps
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
Center	California Conservation Corps Willits Center
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	Methane
CHRIS	California Historical Resource Information System
City	City of Willits
CIWM	California Integrated Waste Management

CNDDB	California Natural Diversity Database
CNEL	Community noise equivalent level
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CRHR	California Register of Historic Places
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	California Water Act
DGS	Department of General Services
DHS	Department of Health Services
DOC	Department of Conservation
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc.
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO	Executive Order
ERNS	Emergency Response Notification System
ESA	Endangered Species Act
FHWA	Federal Highway Administration
GHGs	Greenhouse Gases
GPS	Global positioning system
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
IP	Industrial Park
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
kWh	Kilowatt hours
L_{dn}	average daily noise levels
LEED	Leadership in Energy and Environmental Design
L_{eq}	average hourly noise level
LOS	Level of service
M	Magnitude
MBTA	Migratory Bird Treaty Act
MCAQMD	Mendocino County Air Quality Management District
M-G	Industrial General
MH	Heavy Industrial
MLD	Most Likely Descendent
Mm/year	Millimeters per year
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MNF	Mendocino National Forest
Mph	Miles per hour
MSL	Mean sea level
MUTCD	*Manual of Uniform Traffic Control*

N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NMFS	National Marine Fisheries Service
NMR	NM&R & Associates, Inc
NO_2	Nitrogen dioxide
NOA	Naturally occurring asbestos
NO_x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
O_3	Ozone
OHP	Office of Preservation
OPR	California Office of Planning and Research
PCBs	Polychlorinated biphenyls
pCi/L	Picocuries per liter of air
PG&E	Pacific Gas & Electric Company
PHF	Peak hour factor
PM_{10} and $PM_{2.5}$	Particulate Matter
Ppv	Peak particle velocity
PRC	Public Resource Code
Project Site	440 East Hill Road in Willits, California
Project, Proposed Project	California Conservation Corps, Willits Center
RCRA	Resources Conservation and Recovery Act
REC	Recognized Environment Conditions
RESD	Real Estate Services Division
ROGs	Reactive Organic Gases
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
sf	Square feet
SHN	SHN Engineers and Geologists, Inc.
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SR	State Route
SSC	Species of special concern
SSURGO	Soil Survey Geographic Database
STP	Shovel test pit
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	Toxic air contaminant
TCRs	Tribal cultural resources
TWSC	Two-way stop-controlled intersections
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WEAL	Western Electro-Acoustic Laboratory, Inc.
ZNE	Zero net energy

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SECTION 1.0 BACKGROUND

1.1 Summary

Project Title:	California Conservation Corps, Willits Center
Lead Agency Name and Address:	California Conservation Corps 1719 24th Street Sacramento, California 95816
Contact Person and Phone Number:	Ms. Stephanie Coleman, Senior Environmental Planner California Department of General Services Real Estate Service Division (916) 376-1602
Project Location:	440 East Hill Road, Willits, California. The Project Site is located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west in the Town of Willits, Mendocino County, California within Assessor Parcel Numbers (APNs) 007-160-18; and, 007-100-28.
General Plan Designation:	(M-G) Industrial General
Zoning:	(IP) Industrial Park and (MH) Heavy Industrial

1.2 Introduction

The CCC is the Lead Agency for this Initial Study (IS), which has been prepared to identify and assess the anticipated environmental impacts of the proposed CCC Willits Center. This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resources Code [PRC], § 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. A CEQA Initial Study is generally used to determine which CEQA document is appropriate for a project (Negative Declaration [ND], Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

In accordance with CEQA, this IS/MND will be circulated for a 30-day public review and comment period. Written comments on the Draft IS/MND should be submitted to:

Ms. Stephanie Coleman, Senior Environmental Planner
California Department of General Services, Real Estate Service Division
707 Third Street, 4th Floor
West Sacramento, California 95605

SECTION 2.0 PROJECT DESCRIPTION

2.1 Project Background

The CCC is a department within the California Natural Resources Agency. It provides young men and women ages 18-25 a year of paid service with the State of California and educational opportunities. During their year of service, "Corpsmembers" work on environmental projects and respond to natural and manmade disasters. Through this work, they gain skills and experience that lead to meaningful careers.

The CCC is organized into northern, central, and southern California regions. The Northern Region includes 11 centers including the existing Ukiah Center at 2600 Old River Road in southern Mendocino County. Located about two hours north of San Francisco, the Ukiah Center operates a residential and training facility for CCC operations in the region through a month-to-month lease on land owned by the Mendocino County Office of Education. On the site of a former dairy farm, the mostly residential facility sits on 6.7 acres with cabins constructed by staff and Corpsmembers in the 1980s. The current facility is 30,000 sf and home to about 60 Corpsmembers. The Ukiah Center operates throughout Lake, Mendocino, and Sonoma counties on a variety of natural resource projects, including trail and boardwalk construction, salmon habitat restoration, and stream-bank enhancement. The Center also supports a Type II Initial Attack wildland firefighting crew in conjunction with the U.S. Forest Service.

The Ukiah Center is also home to the Napa Satellite, a nonresidential facility operated by the Ukiah Center, with about 40 Corpsmembers on three crews. These crews perform a wide variety of natural resource work throughout various counties in the North Bay area, including Napa, Solano, Sonoma, Marin, and Contra Costa. Corpsmembers in Napa work in partnership with California State Parks, Napa County Flood District, the Department of Water Resources, and the California Department of Transportation (Caltrans).

The current Ukiah Center has both structural and operational deficiencies that necessitate either major upgrade or replacement. The existing facility no longer meets CCC's full operational and facility needs, nor does it meet the state's facility standards requirements for the Americans with Disabilities Act of 1990 (ADA), seismic, environmental hazard, and fire/life/safety. While the existing facility is deficient, the CCC desires to remain in the general area due to its proximity to project work and the cultivation and expansion of an ongoing sponsor base that's been fostered since 1988. In addition, the local area is ideal for Corpsmembers development because the region provides ample opportunity for Corpsmembers to work on various conservation projects to develop their employable skillset.

An upgrade of the existing facility was considered in 2017; however, due to its dilapidated condition, it was subsequently determined a new facility was needed.

2.2 Project Purpose and Objectives

The Project's purpose and objective is to replace the existing dilapidated Ukiah Residential Center with a new, modern facility that will allow the CCC to better fulfill its mission and objectives in the region. To accomplish this, the CCC Willits Residential Center (Willits Residential Center, Center, or Proposed Project) is proposed. The Proposed Project would provide for a new residential, training and operations facility for

approximately 100 Corpsmembers in the Town of Willits, approximately 25 miles north of the existing facility (see *Figure 2.3-1. Project Vicinity*). The Proposed Project would construct the new Willits Residential Center facility and relocate existing Ukiah Center housing and training functions to the new Center. The CCC would continue to lease the existing Ukiah facility on a month-to-month basis until the new Center is completed.

2.3 Project Characteristics

2.3.1 Site Location and Setting

The Project area is characterized by a Mediterranean climate that is moderated by the Pacific Ocean. The climate is generally mild with warm days and cool nights, with summer average July high and low temperatures of 85° and 47°F and winter average December high and low temperatures of 55° and 44°F. The average annual rainfall in the area is approximately 49.76 inches (U.S. Climate Data 2019).

The Project Site is located at 440 East Hill Road in Willits, California (Project Site). The 27.7-acre site is comprised of two parcels located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west (see *Figure 2.3-2. Project Location*). The site is currently undeveloped and generally level with approximately five feet of relief from south to north. The site supports natural habitats including valley oak riparian and bent grass meadows along drainages and scattered throughout. The site is dissected by a tributary to Davis Creek in the southeast and by a tributary to Haehl Creek near in the center of the site. In addition to these tributaries, several areas within the site are considered jurisdictional wetlands according to U.S. Army Corps of Engineers (USACE) criteria and may contain special-status plant species.

Existing adjacent uses include undeveloped lands to the north, East Hill Road followed by office to the south (Adventist Health Home Care Services), the Northwestern Pacific Railroad corridor followed by a warehouse use to the west, and Highway 101 to the east. The area is surrounded by rolling hills and views of the coastal mountain range (*Figures 2.3-3 and 2.3-4. Representative Site Photographs*).

2.3.2 Project Components and Facilities

The proposed site plan is shown in *Figure 2.3-5. Willits Residential Center Site Plan*. In addition, visual simulations of the developed site are presented below in *Section 4.1 Aesthetics*. The Project components are described below.

Location: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\location_vicinity\Ukiah_LVn_20190822_CEQA.mxd (JDS)-JSwager 8/22/2019

Map Date: 8/22/2019

Service Layer Credits: Sources: Esri, USGS, NOAA

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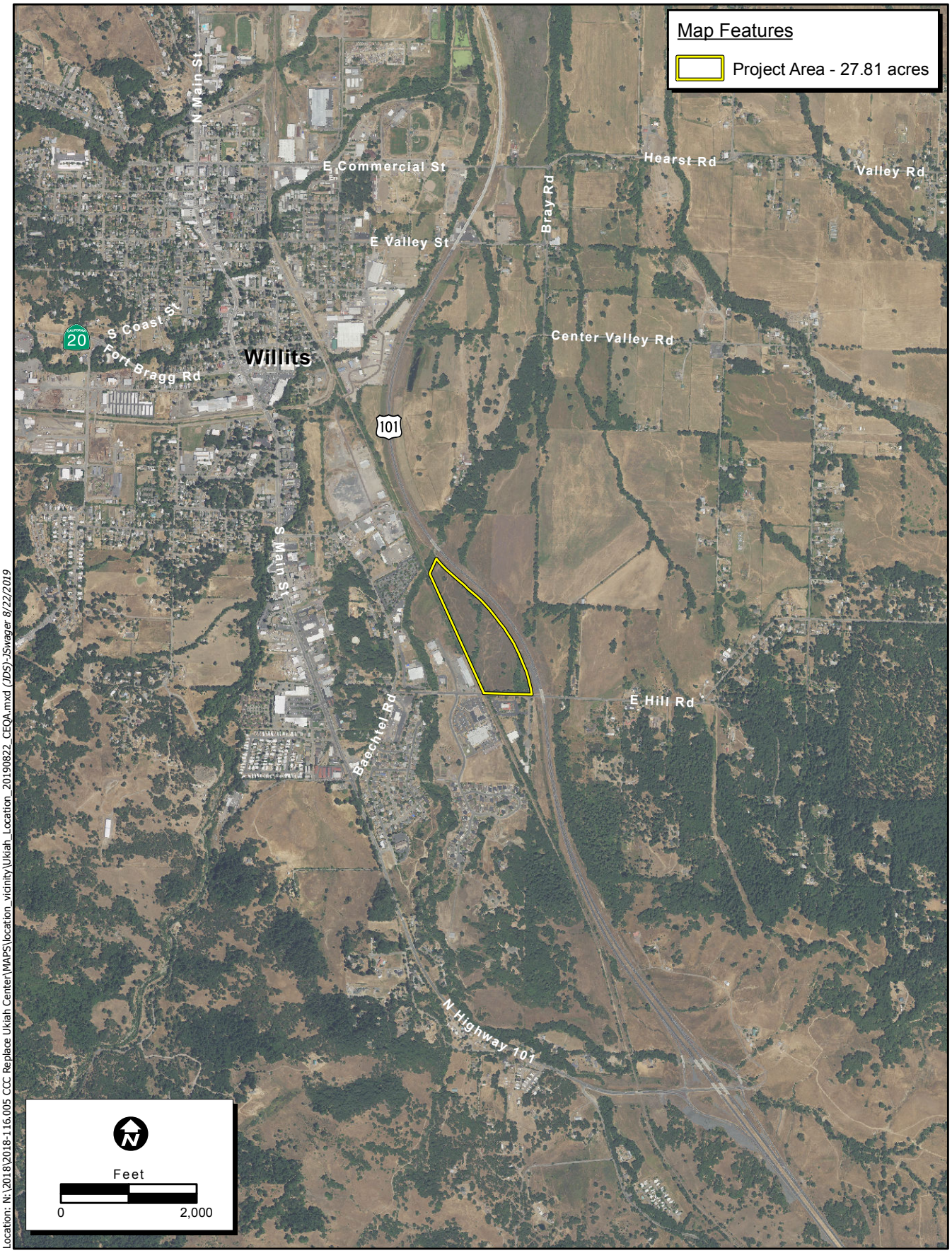
Figure 2.3-1. Project Vicinity

2018-116.005 CCC Willits Center



Location: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\location_vicinity\Ukiah_Location_20190822_CEQA.mxd *(JDS)-JSwager 8/22/2019*

Map Date: 8/22/2019
Sources: ESRI, NAIP (2018), LSA

Figure 2.3-2. Project Location

2018-116.005 CCC Willits Center

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Location of proposed bridge crossing to emergency staging area, looking northwest.

View of the southeast drainage, looking west.

Near western boundary, looking north.

Highway 101 over Haehl Creek (north side of Project site).

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Figure 2.3-3. Representative Site Photographs

2018-116.005 CCC Willits Center

View from eastern project boundary, looking north.

Decommissioned railroad near southern project boundary, looking north.

View of Highway 101 and the eastern project boundary, looking southeast.

View from eastern project boundary, looking south.

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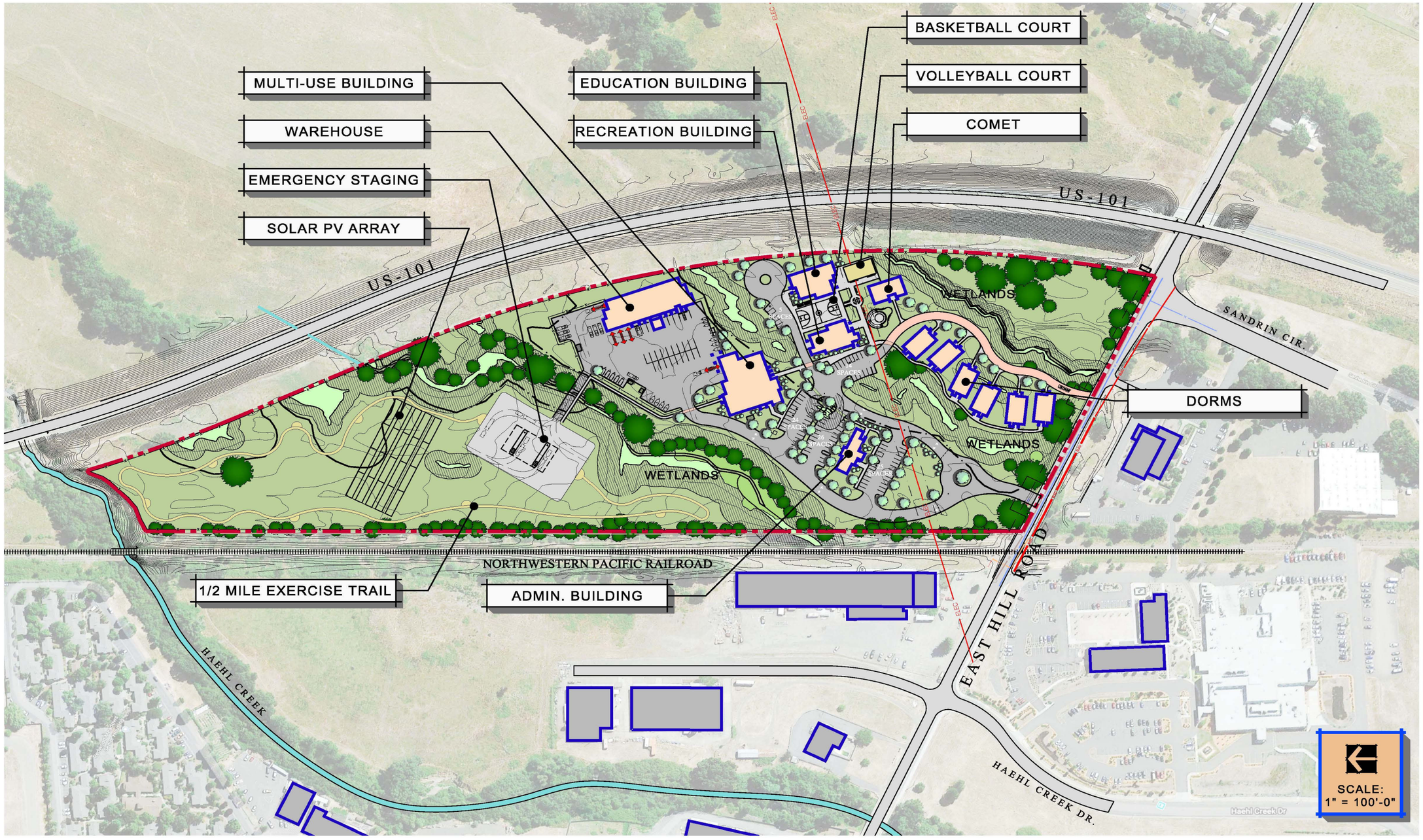
Figure 2.3-4 Representative Site Photographs

2018-116.005 CCC Willits Center



SCHEMATIC DESIGN
AUGUST 7, 2019

C.C.C.
WILLITS RESIDENTIAL CENTER

SITE PLAN 9

ECORP Consulting, Inc.
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Figure 2.3-4: Willits Residential Center Site Plan

2018-116.005 CCC Willits Center

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Development Areas

Access, Circulation, and Parking

As shown on *Figure 2.3-5*, the Center's main entrance would be from East Hill Road near the site's southwest corner. Onsite vehicle circulation would be provided by a two-lane "loop" road, with roundabouts located near the main entrance and on the eastern loop terminus near the education building. The east side road would be 26 feet wide and narrow to 20 feet wide next to the education and recreation buildings. The west side road with access to the vehicle yard and maintenance building would be 30 feet wide. A crossing would be constructed over the western drainage and wetland area to provide access to the emergency staging area and solar array. A 6-foot-wide meandering half-mile exercise trail, accessible from the new bridge, would loop around the emergency staging area and solar array in the northern portion of the site. An aggregate base emergency vehicle only access with security gates at each end would connect the south end of the recreation building parking lot, the comet building and dorms to East Hill Road near the middle of the southern property line.

Four primary parking lots with a total of 89 parking spaces are planned near the major use areas with connecting walkways located between parking lots and use areas. Walkways would typically be five feet wide and comprised for four-inch concrete over four-inch compacted aggregate base. In addition, a fenced vehicle/trailer parking area would adjoin the warehouse and northwest side of the multi-purpose building. An emergency staging area to accommodate temporary overflow parking and staging needs would be constructed west of the western drainage and warehouse (described further under Emergency Staging Area below).

Buildings

To keep with the residential character of the buildings while providing for durability and wildfire resistance, exterior materials will typically be noncombustible fiber cement siding with adhered masonry stone veneer wainscots. To create a varied character and smaller scale to the buildings, fiber cement siding will vary in pattern and color to make the buildings appear as a collection of smaller elements. Roof design will generally feature steep slope gable-end roofs to keep in character with the site location. Some overhangs and building elements will have lower sloped roofs. Roofing material will generally be asphalt composite shingle on the main roofs with lower roofs being metal standing seam. A flat roof portion of the multi-purpose building will have a single ply membrane.

The administration and multi-purpose buildings comprise the central portion of the campus. The approximately 3,363-sf administration building would be in the southwest portion of the site near the Center's main entrance to facilitate visitor interactions. The administration building includes a reception area, offices for the District and Business Services Directors and staff, a conference room, work stations, records room, and restroom. A 14,656-sf multi-purpose building with kitchen and dining facility would be located to the northeast of the administration building, separated by a parking lot. The multi-purpose building includes a 4,000-sf multi-use court with associated storage areas and rest rooms, and a 714-sf kitchen and dining hall with seating for 120 persons. A delivery dock would be located on the building's northeast corner.

A 13,604-sf warehouse training building and equipment staging area would be located at the rear (north end) of the site. The warehouse includes a shop manager's office, a conservation work room with computer work stations, a laundry facility, a woodshop, and chain saw cleaning room. The warehouse would also serve as the receiving location for conservation program deliveries and supplies. A delivery dock would be located on the building's north end with ample adjacent warehouse and secure storage areas, including individual storage units for up to six Corpsmember crews.

The eastern portion of the site would accommodate a 6,268-sf education building, a 5,498-sf recreation building, a 3,213-sf COMET housing building and a row of six 2,908-sf dormitories. The education building includes three offices, three training rooms, a computer lab, library, restrooms, storage and support facilities. The recreation building features a large activity area and lounge. Also included are weight, TV, reading, music, laundry, and gaming rooms, restrooms and storage and support facilities. The COMET housing building includes two large men's and women's sleeping quarters with bunk beds for up to 36 people and accompanying restrooms/showers. Each dormitory would provide sleeping quarters for up to 16 Corpsmembers in three four-person and two two-person rooms and include bathroom and shower facilities.

All proposed buildings and related square footages are listed in *Table 2.3-1*. As shown, proposed onsite buildings combined represent approximately 64,238 sf of new construction. All buildings would be designed to meet the U.S. Green Building Council's LEED Silver rating requirements in order to attain the highest possible energy efficiency and will include ZNE pursuant to the Governor's EO B-18-12.

Table 2.3-1. Project Statistics

Proposed Buildings/Facilities	Square Footage/Acreage
Project Site	27.7 acres
Administration Building	3,363 sf
Housing/Dormitories	2,908 sf (6 total dormitories)
COMET Building	3,213 sf
Warehouse with Work Area	13,604 sf
Multi-Purpose Building with Kitchen and Dining Room	14,656 sf
Hazardous Materials Storage Building	200 sf
Education Building	6,268 sf
Recreation Building	5,498 sf
Solar Photovoltaic Array	Approximately 35,000 sf or 0.8 Acres (488 kW rating)
Paved Transportation Surfaces (roads, sidewalks, driveways, and parking areas)	101,000 sf
Other Concrete Paved Areas (for additional service, staging areas and connecting walkways)	78,000 sf
Total building square footage: 64,238 sf (approximately)	

Exterior Lighting

Exterior lighting would be controlled by an automatic lighting control system and timeclock and would achieve a minimum exterior illumination level of one fc minimum at grade level. Building perimeters will be highlighted by wall mounted light fixtures and downlights and would provide coverage for pedestrians in proximity of buildings. All corridors, exit pathways, and other areas required by code will be illuminated to current California Building Code (CBC) minimum standards and all exterior fixtures will be dark-sky compliant.

The outdoor sports courts area would be lighted for night use. This lighting would be pole-mounted, equipped with top shielding and focused on the court area to minimize light spill.

Landscaping

Landscaping will be designed to emphasize safety and security, fire resistance, low maintenance and durability, freeway buffer, preservation of wetland areas and water conservation. Planting and irrigation design will conform to the requirements of the California Model Water Efficient Landscape Ordinance and Mendocino County requirements. Landscaping will be maximized at the administration building, housing units and road entrance. Minimal to no landscaping will occur in natural areas, perimeters, and areas out of public view. Open areas will be provided adjacent to walks and patio areas for visibility, fire protection, and to reduce snake habitat. High branched trees and low shrubs and groundcovers will be used to maintain overall visibility. Turf will only be used around housing units and the recreation building to create open space and provide for additional recreational opportunities. All irrigation will be drip (as appropriate) with weather-based controllers and will conform to State of California specifications.

Storm Drainage

Storm drain improvements will be designed in accordance with City of Willits (City) standards and the County of Mendocino Low Impact Development Standards Manual. Onsite improvements will be designed for the 85th percentile storm event and site grading will ensure all impervious areas and surface drainage are directed toward bioretention areas prior to release to existing wetlands and drainage channels.

Avoidance Areas

As shown, site development is planned to avoid two onsite north-south intermittent drainages; a tributary to Davis Creek in the southeast and a tributary to Haehl Creek near in the center of the site. These drainages would be contained within open space areas and protected by 50-foot setback buffers and define the east and west boundaries of the primary development area. Several isolated seasonal wetlands are also located between these drainages and would mostly be avoided and protected by 25-foot buffers.

Emergency Staging Area

An emergency staging area is located on the north end of the site, west of the western most drainage. Access to the staging area would be provided by a bridge from the warehouse parking lot. The emergency staging area would be designed to accommodate overflow vehicle and equipment staging and temporary toilet and shower trailers during large scale emergency events. The staging area will be

aggregate base and sized to accommodate turning radii for up to four large vehicles with restroom trailers attached. Between each parking stall would be a raised curb with portable trailer fill station, water tower, and dumping station.

Utilities

Water and Wastewater

Potable water and wastewater service will be provided by the City of Willits. An existing water main in East Hill Road would be extended to the Project site via the main access road. If additional flow capacity is required, the City has indicated an existing water line can be extended to the site from the west. Fire protection would be provided by a private onsite 8- to 12-inch looped pipe system with hydrants spaced no greater than 300 feet apart and within 150 feet of all building facades.

Wastewater collection would be accomplished by attaching to collection manholes in East Hill Road, or in the railroad right-of-way located adjacent to the western Project boundary. A grease/oil separator would be connected to the sanitary sewer lateral prior to discharge to the City collection system.

Electricity, Phone, Cable, and Internet Service

Electrical service would be provided by Pacific Gas and Electric (PG&E) and telephone, television, and internet service would be supplied by AT&T. Existing facilities for these utilities are located in East Hill Road adjacent to the site.

Natural Gas

Natural gas service would be provided by PG&E. Gas service would be extended to the site from an existing line located in East Hill Road.

Solar Photovoltaic Array

A photovoltaic array to generate supplemental electrical power for the Center would be located north of the emergency staging area. The 488 kW (STC DC) array would be comprised of 35,000 sf of ground-mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually.

Emergency Power System

The Center would also be equipped with onsite emergency power system consisting of a pad-mounted 150kW diesel engine generator. The generator will be housed in a small weatherproof sound attenuating building with an underground fuel tank capacity sufficient for 72 hours of operation at 100 percent load. The emergency system would provide power to selected receptacles for data network system, alarm systems, food service and other emergency operations.

Personnel

The existing Ukiah facility is currently staffed with approximately 100 total personnel (staff and Corpsmembers). The proposed Willits Center is expected to be staffed with approximately 126 total personnel (100 Corpsmembers and 26 staff).

The anticipated staffing by building is shown in *Table 2.3-2*. The number of onsite staff would vary throughout the year depending on seasonal needs, as well as major fire and emergency events. The staffing numbers shown in *Table 2.3-2* are the estimated average for each facility for a typical 24-hour-per-day of operation.

Table 2.3-2: Operations and Personnel Staffing by Building

Administration Building
Open 8:00 a.m. – 5:00 p.m. Monday-Friday 7-10 pubic visitors per day Full Time Staff (8 hours or more): 6 Part Time Staff (less than 8 hours): 0 Corpsmembers (daily average):7
Education/Recreation Building
Full Time Staff (8 hours or more): 10 Part Time Staff (less than 8 hours): 0 Corpsmembers (daily average): 60
Multi-Purpose Building
Full Time Staff (8 hours or more): 2 Part Time Staff (less than 8 hours): 0 Corpsmembers (daily average): 80
Warehouse Building
Full Time Staff (8 hours or more): 8 Part Time Staff (less than 8 hours): 0 Corpsmembers (daily average): 60
Dorm Building (6 Total)
Residents (8 hours or more): 80 Part Time Staff (less than 8 hours): 0
COMET Building
Residents (8 hours or more): 18 for up to 30 days 2-4 times per year. Part Time Staff (less than 8 hours): 0

Operations

Typical Center operations are described below.

Administration

The Willits Center administration building would serve as the hub of Center activities and would be open to the public from 8 a.m. to 5 p.m. Monday through Friday. The administration building would be staffed by six full time employees and sees seven to 10 public visitors on average per day.

Warehouse and Crew Operations

Corpsmember field operations consists of six crews of 15 Corpsmembers each. Crews typically load and unload service truck tools, equipment and supplies at the warehouse and in the staging area in front of the warehouse. Crews typically depart the Center at 7:30 a.m. for field operations in two vehicles per crew (a crew carrying vehicle accompanied by pickup truck with trailer) and return at 4:30 p.m. Fueling, power

washing, training, and maintenance of vehicles, trailers, chain saws and other small gas-powered equipment also occurs in front of the warehouse and along the western boundary of the gated warehouse parking area. This area also accommodates trash receptacles and a hazardous materials storage area.

Education Building

Classroom training for Corpsmembers typically occurs Monday-Friday 7:00 a.m. to 7:00 p.m. Corpsmembers reside onsite while some instructors drive to the Center from offsite locations. The type and duration of typical training activities is summarized below:

- *John Muir Charter School* – Monday-Thursday 1:00 p.m. to 9:00 p.m. and Friday 8:00 a.m. to 5:00 p.m.
- *Career Training* – once per week 11:00 a.m. to 3:00 p.m.
- *Navigator Class* – once per week 6:00 p.m. to 9:00 p.m.
- *Conservation Awareness Class* – once per week 5:00 p.m. to 9:00 p.m.
- *Computer Lab Class* – once per week; 5:00 p.m. to 9:00 p.m.
- *COMET Training (boot camp)* – monthly; Monday-Friday 7:00 a.m. to 7:00 p.m. for 75 hours
- *Flood Training* – 8 times per year; Monday-Friday 8:00 a.m. to 6:00 p.m. for 14 hours
- *Boating and Waterway Training* – monthly; 7:00am to 7:00pm for 10 hours
- *Chain Saw Training* – quarterly; Monday-Friday 8:00 a.m. to 5:00 p.m. for 40 hours
- *HAZWOPER Training* – annually; Monday-Friday 8:00 a.m. to 5:00 p.m. for 40 hours
- *Blue Card Training (class B license)* – 6 times per year for 12 hours
- *Tree Climbing Training* – twice monthly; Monday-Wednesday 8:00 a.m. to 5:00 p.m. for 24 hours
- *Fire Training* – twice monthly; Monday-Friday 8:00 a.m. to 5:00 p.m. for 40 hours

Multi-Purpose Building

The multi-purpose building, which includes the kitchen, dining hall, and exercise facility, would be operated primarily Monday-Friday from 4:30 a.m. to 10:00 p.m. and 7:00 a.m. to 10:00 p.m. on the weekends. Additional informal use would occur as well. During emergency events, the multi-purpose building sport courts could be used for temporary worker shelter.

Dormitories and COMET Building

Dormitories would typically house Corpsmembers 24 hours per day, year-round. The COMET building would be used for overflow Corpsmember housing during emergency events when additional personnel are on site. COMET building housing is expected to be used six times per year for one month per use.

Recreation Building Operations

The recreation building and adjacent outdoor amenities (basketball and volleyball courts) would be operational and open to Corpsmembers for drop in visits Monday-Friday from 5:00 a.m. to 10:00 p.m. and 24 hours per day on the weekends. The outdoor sports courts would be lighted for night use. A security guard would primarily operate from the recreation building 24-hours per day, seven days a week.

Emergency Staging Area

Throughout the year, crews from various California emergency response crews may use the CCC's service centers for staging. The emergency staging area would accommodate this function. Personnel staying in the staging area would have access to restroom and dining facilities in the adjacent multi-purpose building. If necessary, emergency crew temporary housing could also be set up on the multi-use courts in the multi-purpose building.

Outdoor Onsite Training

Flood and firefighting emergency preparation and training activities typically occur in and around the warehouse and vehicle/trailer parking area. This can include operation of fire extinguishers and firefighting apparatus as well as small gas-powered equipment such as chain saws, air compressors and/or generators.

Amphitheater

The amphitheater would be available for outdoor classroom/training and social or recreational activities during normal Center operating hours.

Deliveries

Various deliveries (such as U.S. Postal Service, UPS, and Federal Express) would occur daily. In addition, solid waste pickup occurs once per week and food deliveries occur approximately twice per week. Mail and overnight deliveries are typically received at the administration building while equipment, supply and food deliveries are received at the warehouse and rear of the multi-purpose building.

Onsite Public-Address System

A loudspeaker public address system may be included as part of the project to alert on site personal of possible fire alarms and/or other important information. The speaker system would only be placed at outdoor activity areas where personal typically gather and designed so as not to be audible offsite.

2.4 Construction Schedule and Approach

Project construction activities are anticipated to begin in 2021, with an anticipated facility operational date in late 2023. Construction activities would take place between 7:00 a.m. and 7:00 p.m. Monday-Friday and, if necessary, between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. Construction would consist of the following primary phases.

- *Phase 1: Mobilization and Site Layout*. The construction team would set up the construction site, including perimeter fencing, and implement initial construction best management practices (BMPs) (such as fencing environmentally sensitive areas).
- *Phase 2: Civil Site Preparation, Road Installation, and Receipt of Construction Materials*. The construction team would conduct minor grading to smooth and contour the site, construct access roads, install underground utilities, and prepare building sites. Materials needed for Project construction would be received and stored onsite within construction staging areas.
- *Phase 3: Building Construction*. Buildings and special use areas such as the solar array and exercise trail located on the west side of the property would be constructed.
- *Phase 4: Landscaping, Signage and Demobilization Activities*. Landscaping and finishing work such as signage and fences would be installed. The construction team would conduct post-construction site restoration, including site cleanup activities, removal of all temporary facilities and fences, and implementation of post-construction BMPs.

2.4.1 Grading

Grading would consist of cuts and fills to smooth development areas and ensure positive drainage. Project grading is expected to be a balanced onsite. No import or export of soil is anticipated. It is expected that grading would be accomplished using conventional grading equipment listed in *Table 2.3*. Scrapers would cut and transport onsite soil within the Project Site. Finish grading would be achieved by motor graders (blades) and skip loaders. Material excavation and compaction activities would be required primarily to install roads to meet fire and safety requirements. Throughout grading operations, water trucks would provide water to the site to achieve the proper moisture content for compaction and dust suppression. During times of excessive wind, grading would be stopped to control dust generation.

Underground utilities would be installed using standard underground utility trenching methods. Trenches would be excavated by hand or by a backhoe or similar excavation equipment. Underground utility placement would begin immediately following trench excavation, followed by back fill and compaction.

Table 2.4-1. Construction Equipment List

Grading, Underground and Road Construction Phase	Building Construction Phase
3 Rubber Tired Dozers	1 Crane
4 Tractors/Loaders/Backhoes	3 Forklifts
1 Excavator	1 Generator Set
1 Grader	3 Tractors/Loaders/Backhoes
2 Pavers	1 Welder
2 Paving Equipment	1 Air Compressor
2 Rollers	

2.5 Regulatory Requirements, Permits, and Approvals

This Initial Study provides the environmental information and analysis and primary CEQA documentation necessary for the CCC to adequately consider the effects of the proposed project. CCC, as CEQA Lead Agency, has the approval authority and responsibility for considering the environmental effects of the Proposed Project.

The following approvals and regulatory permits would be required for implementation of the Proposed Project:

Table 2.5-2. Regulatory Permits and Approvals

Organization or Issue	Approval or Permit
California Conservation Corps	Adopt IS/MND and Project Approval
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) permit, Construction Storm Water General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) and BMPs
U.S. Army Corps of Engineers	Section 404 Permit for emergency staging area bridge crossing
Regional Water Quality Control Board	Section 401 Permit for emergency staging area bridge crossing
California Department of Fish and Wildlife	Section 1602 Permit for emergency staging area bridge crossing
Mendocino County Air Quality Management District	Permit to Operate for emergency generator (to be determined)
State Fire Marshal; State Architect	Approval for ADA, structural review and fire suppression and code compliance review

* The Proposed Project would be located on state-owned property and would remain a state-owned and operated facility. As such, the property would not be within permitting jurisdiction of Mendocino County or the City of Willits and permits for planning and building activities are not required.

2.6 Consultation with California Native American Tribe(s)

The following California Native American tribes traditionally and culturally affiliated with the Project Area have been notified of the project: Coyote Valley Band of Pomo Indians, Pinoleville Pomo Nation, and the Sherwood Valley Band of Pomo Indians. No tribes have requested consultation pursuant to PRC § 21080.3.1. A summary of the notification process is provided in Section 4.18 of this IS.

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SECTION 3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Recreation
☐ Agriculture and Forestry Resources	☐ Hydrology/Water Quality	☒ Transportation
☐ Air Quality	☐ Land Use and Planning	☐ Tribal Cultural Resources
☒ Biological Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☒ Cultural Resources	☐ Noise	☐ Wildfire
☐ Energy	☒ Paleontological Resources	☒ Mandatory Findings of Significance
☐ Geology and Soils	☐ Population and Housing	
☐ Greenhouse Gas Emissions	☐ Public Services	

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.	☐

Mr. Dan Millsap, Deputy Director
Capital Outlay & Facilities Management Branch
California Conservation Corps

Date 03/26/2020

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SECTION 4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

The City of Willits lies at the foot of a coastal mountain range, along the western periphery of Little Lake Valley. The surrounding wooded ridgelines, juxtaposed against the coastal prairie grasslands of the Valley, contribute to the City's high-quality visual environment. From a development standpoint, the City's visual setting is reflective of Willits' history as a sub-regional commercial and industrial center. Over the years, the natural environment within the City has been substantially altered as a result of residential, commercial and industrial development. Although past development has altered the City's existing environment, Willits retains a "small town'' character which is reflected in the design of its residences, commercial buildings and public open space.

Project Site Visual Setting

As discussed in the Project Description, the 27.7-acre Project Site is comprised of two parcels located north of East Hill Road between the U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. The site is currently undeveloped and generally level with approximately five feet of relief from south to north. The site supports natural habitats including valley oak riparian and bent grass meadows along drainages and scattered throughout. The site is dissected by a tributary to Davis Creek in the southeast and by a tributary to Haehl Creek in the approximate center of the site. Riparian vegetation is common along the two major drainages and partially and intermittently screens views across the site. In addition to these tributaries, seasonal wetland "ponding" occurs in the low-lying areas in the southeast portion of the Project Site and along the northeast boundary adjacent U.S. Highway 101.

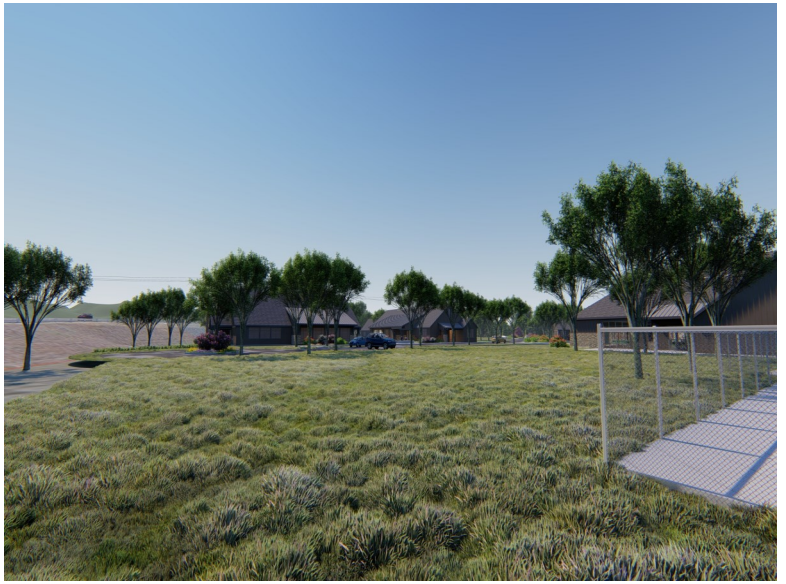
Existing adjacent uses include undeveloped lands to the north, East Hill Road followed by office to the south (Adventist Health Home Care Services), the Northwestern Pacific Railroad corridor followed by a warehouse use to the west, and Highway 101 to the east. The area is surrounded by rolling hills and distant views of the coastal mountain range. Typical views of the Project Site are shown in *Figures 4.1-1* and *4.1-2*. *Representative Photographs and Simulations* (see photos A-D) with photo locations identified in *Figure 4.1-3. Photo and Visual Simulation Location Map*.

The most prominent offsite views of the Project Site are from U.S. Highway 101 and East Hill Road. U.S. Highway 101 is elevated in the Project Area and defines the site's northeastern boundary. As shown in *Figure 4.1-1* Photos A and B, due to its elevation and lack of screening vegetation, the majority of the Project Site is clearly visible from U.S. Highway 101. Although not as prominent, offsite intermittent views of the Project Site are also available from East Hill Road located immediately adjacent and south of the Project Site (see *Figure 4.1-2* Photo C). While traveling East Hill Road, views of the southern portion of the Project Site are partially screened by existing roadside and onsite vegetation, however intermittent views of the Project Site are available.

Photo A: Existing view looking south from Highway 101.

Simulation A: View looking south from Highway 101.

Photo B: Existing view looking south from eastern project boundary.



Simulation B: View from eastern project boundary looking south toward education and recreation buildings..

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Figure 4.1-1. Representative Photographs and Simulations

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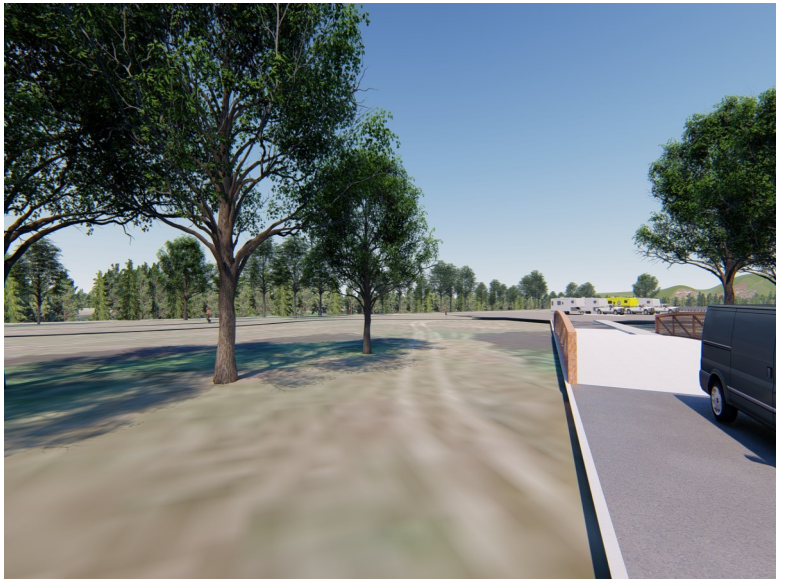
Photo C: Existing view looking north toward main entrance from East Hill Road.

Simulation C: View looking north toward main entrance from East Hill Road.

Photo D: Existing view of proposed bridge crossing to emergency staging area.



Simulation D: View of proposed bridge crossing to emergency staging area.

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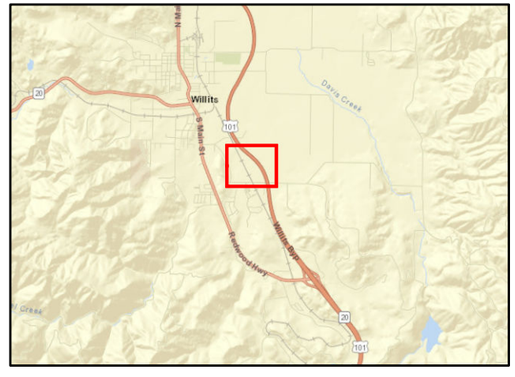
Figure 4.1-2. Representative Photographs and Simulations

2018-116.005 CCC Willits Center

Map Features

- Project Area - 27.81 acres
- Photo and Simulation Location with View Direction

Sources: ESRI, NAIP (2018), LSA



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Scale in Feet
0 250

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Map Date: 10/17/2019

Figure 4.1-3. Photo and Visual Simulation Location Map

2018-116.005 CCC Willits Center

ECORP: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\cega\Ukiah_PhotoPts_20191016.mxd (JDS/CCH)-JSwager 10/29/2019

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Offsite public views of the Project Site from the north and west are limited. This is due in part to a general lack of public viewing locations, existing screening vegetation, grade changes associated with Haehl Creek to the north and northwest, and the existing and slightly elevated and abandoned Northwestern Pacific Railroad right-of-way along the Project Site's western boundary. In *Figure 4.1-2*, Photo D shows a view of the proposed central drainage crossing to the emergency staging areas. While public views of the Project Site from the west do not currently exist, the City of Willits has plans to convert the abandoned rail road to a Class 1 multi-use trail which would introduce future public views of the Project Site from the west.

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view (Caltrans 2013).

There are no officially designated State of California Scenic Highways in Mendocino County (Caltrans 2017).

City of Willits General Plan Policies

According to the Willits General Plan Revision, Vision 2020 (City of Willits 1992), the visual and aesthetic character of Willits is an environmental attribute which should not be diminished as a result of future development. The wooded ridgelines which surround Little Lake Valley, the trains which traverse the valley floor and wind into the mountains, the riparian corridors which extend into the City itself and the mature trees which predominate throughout the planning area are all aspects of the visual environment worthy of substantial preservation efforts. At the same time, however, the General Plan acknowledges that the City's history of industrial, commercial and residential development has left an imprint on its existing visual environment. Lumber mills, factories, abandoned industrial sites, dilapidated residences and mobile home parks, and poorly maintained commercial buildings have combined to create visual blight in some portions of the community. In addition, therefore, to having many visual attributes worthy of preservation, the City also has a need for enhancement of its visual environment in some areas.

According to the Willits General Plan, planning for future population and household growth must consider Willits' "small town'' character which is reflected in the design of its residences, commercial buildings and public open space.

While there are no General Plan policies specific to aesthetics/visual resources, the General Plan EIR identifies the following mitigation measures to minimize visual impacts of land development.

4.831: Utilize the policies contained in the Conservation and Open Space Element to preserve and enhance the City's existing visual environment.

4.832: Encourage projects which clearly enhance the visual characteristics of the site and the surrounding area.

4.833: Utilize the application review process to seek modifications in proposed plans which negate the adverse visual impacts or enhance the visual attributes of proposed development projects.

4.834: Preserve trees and other significant visual features through enforcement of existing ordinances and enactment of new ordinances where appropriate.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒

No impact.

The Project Site is generally level with approximately ten feet of relief from south to north and has limited public views, primarily form U.S. Highway 101 and to a lesser extent from East Hill Road. According to the City of Willits General Plan, the Project Site is not within a designated scenic area or located on a scenic vista. Therefore, site development would not have a substantial adverse effect on a scenic vista and no impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

No impact.

There are no designated state or County Scenic Highways in the City of Willits or Mendocino County and the undeveloped site does not contain significant scenic resources such as "heritage trees," rock outcroppings or historic buildings. The majority of existing onsite trees will be preserved within open space corridors and developed areas will include complementary landscape plantings. The Project would not substantially damage scenic resources within a state scenic highway viewshed. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐

Less than significant.

The Project Site exists within an urbanizing area of the City of Willits and is currently undeveloped and generally level with approximately five feet of relief from south to north. The Site supports natural habitats including valley oak riparian and bent grass meadows along seasonal wetland drainages. With the exception of views from U.S. Highway 101, which is elevated and located adjacent and to the east, the Project Site is mostly isolated from public view. The only other public viewing location is from East Hill Road, which defines the Site's southern boundary and provides intermittent views into the site from the south through roadside trees/vegetation. No existing residences have views of the Project Site.

Photo simulations were developed to depict the visual character of the developed site. *Figure 4.1-4. Overall Site Rendering* shows a "bird's eye" view of the overall proposed development from a location above the U.S. Highway 101/East Hill Road intersection. This simulation shows the cohesive design and campus like visual setting. *Figures 4.1-5 and 4.1-6.* show the architectural treatments integrated into the building facades. As discussed in the setting section above, the most prominent offsite views of the Project Site would be from U.S. Highway 101 and East Hill Road. Photo and simulations A and C as shown in *Figures 4.1-1* and *4.1-2* show the visual change that can be expected at these locations and photo simulations B and D show visual changes that would occur from onsite viewing locations.

As shown, a "campus" type design is proposed with a consistent and complementary architectural theme intended to blend with the local environment. To keep with the residential character of the buildings while providing for durability and wildfire resistance, the exterior materials will typically be noncombustible fiber cement siding with adhered masonry stone veneer wainscots. To create a varied character and smaller scale to the buildings, fiber cement siding will vary in pattern and color to make the buildings appear as a collection of smaller elements. Roof design will generally feature steep slope gable-end roofs to keep in character with the site location. Some overhangs and building elements will have lower sloped roofs. Roofing material will generally be asphalt composite shingle on the main roofs with lower roofs being metal standing seam. Additional site improvement would include parking lots, pavement, curbs, gutters, sidewalks/pathways, and lighting (see *Figures 4.1-5 and 4.1-6 Major Building Elevations* for example treatments).

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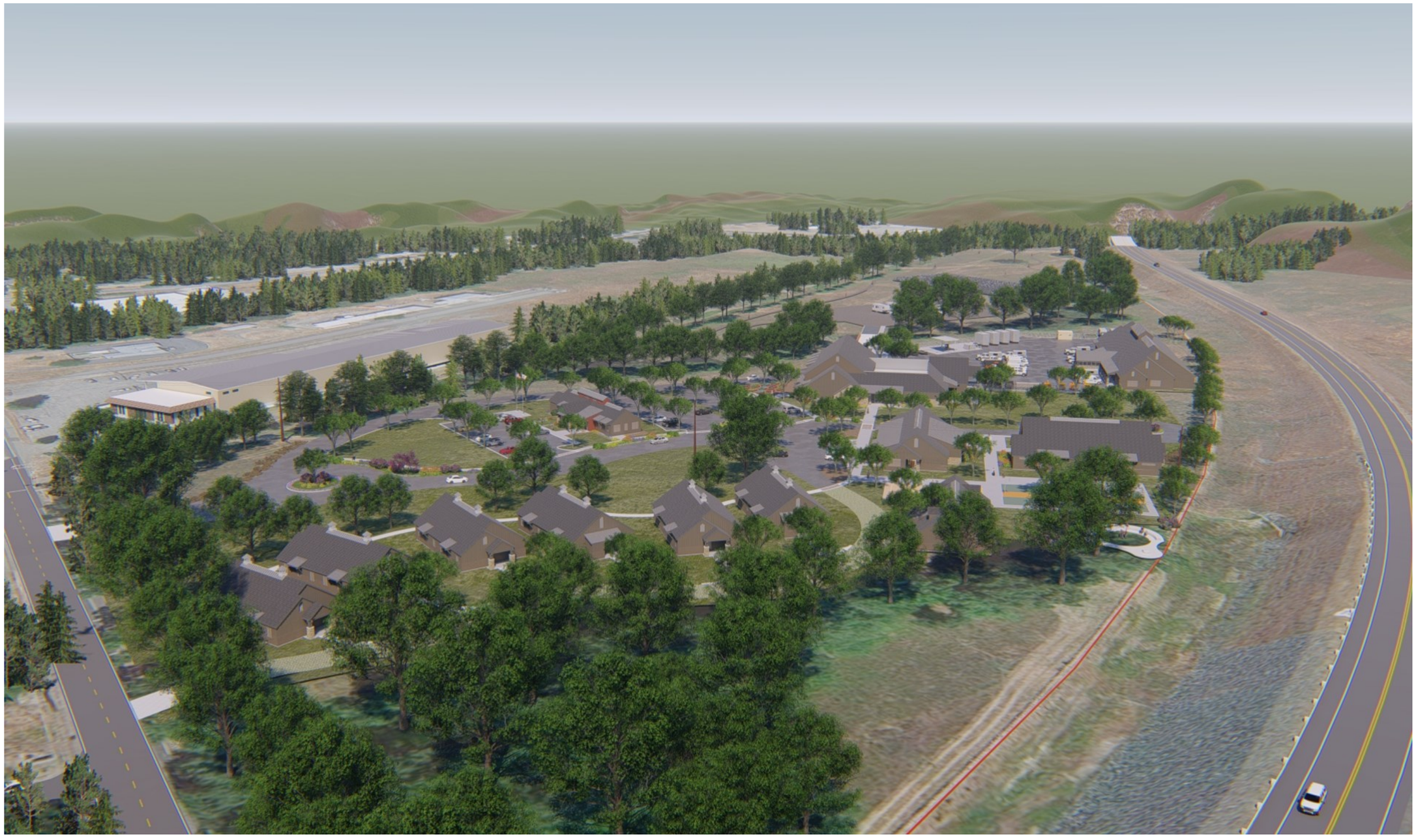

Simulation E: Looking northwest at overall site rendering.

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ADMINISTRATION BUILDING

COMET BUILDING

HOUSING

HOUSING

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PERMIT NO.: ____

REVIEWED BY: ____

DATE: ____

CALIFORNIA DEPT. OF PUBLIC HEALTH
Environmental Management Branch
Environmental Health
Services Section

REVIEWED BY: ____

DATE: ____

DGS GENERAL SERVICES
Department of General Services
State of California
Real Estate Services Division
Project Management & Development Branch
707 Third Street, Suite 4-105
West Sacramento, California 95605

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LICENSE STAMPS

CONSULTANT

DRAWING STATUS
PRELIMINARY PLANS
NOT FOR CONSTRUCTION

ISSUE

No.	Date	Description

If drawing is not 30" x 42" it is a reduced print

PROJECT
RESIDENTIAL CENTER, UKIAH: REPLACEMENT OF EXISTING RESIDENTIAL CENTER
440 EAST HILL ROAD
WILLITS, CALIFORNIA 95490
MENDOCINO COUNTY
CALIFORNIA CONSERVATION CORP

Supervisor	Designed	Drawn
		KMA

DSA Application No.
XX-XXXXXX

SHEET TITLE
BUILDING PERSPECTIVES

DGS Project Number XXXXX
NMR Project Number 18-6456

Reference North — NORTH

Sheet Scale

Sheet Number
G003

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4.1-5. Major Building Elevations
2018-116.005 CCC Willits Center

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RECREATION BUILDING

EDUCATION BUILDING

MULTI-PURPOSE BUILDING

WAREHOUSE BUILDING

OFFICE OF THE STATE FIRE MARSHAL
APPROVED FIRE AND PANIC ONLY
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PERMIT NO.: ____________
REVIEWED BY: ____________
DATE: ____________

CALIFORNIA DEPT. OF PUBLIC HEALTH
Environmental Management Branch
Environmental Health
Services Section

REVIEWED BY: ____________
DATE: ____________

DGS
GENERAL SERVICES
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DRAWING STATUS
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PROJECT
RESIDENTIAL CENTER, UKIAH: REPLACEMENT OF EXISTING RESIDENTIAL CENTER
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WILLITS, CALIFORNIA 95490
MENDOCINO COUNTY
CALIFORNIA CONSERVATION CORP

Supervisor	Designed	Drawn
		KMA

DSA Application No.
XX-XXXXXX

SHEET TITLE
BUILDING PERSPECTIVES

DGS Project Number: XXXXX
NMR Project Number: 18-6456

Reference North: NORTH
Sheet Scale
Sheet Number: G004

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4.1-6. Major Building Elevations
2018-116.005 CCC Willits Center

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Although the Project would alter the visual character of the site, it has been designed to preserve trees and avoid the most interesting natural visual elements of the Project Site, which would be retained within open space areas. The Project is well designed with a consistent architectural theme that will enhance the City's existing developed visual environment. The City of Willits zoning code does not regulate scenic quality; however, the Project design is consistent with City of Willits General Plan EIR mitigation measures 4.831, 4.832 and 4.834, which are intended to minimize visual impacts of land development. As such, proposed development would not significantly degrade the existing visual character or quality of the Project Site or its surroundings nor would it conflict with other regulations governing scenic quality. Related impacts are less than significant.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Less than significant.

Project development would include building and landscape level lighting typical of similar developments. Exterior lighting would achieve a minimum exterior illumination level of one foot-candle minimum at grade level. Building perimeters would be highlighted by wall mounted light fixtures and downlights and would provide coverage for pedestrians in proximity of buildings. All corridors, exit pathways, and other areas required by code would be illuminated to current California Building Code minimum standards and all exterior fixtures would be dark-sky compliant.

The outdoor sports courts located near the recreation and education buildings would also be lighted for night use and open to Corpsmembers for drop in visits Monday-Friday from 5:00 a.m. to 10:00 p.m. and 24 hours per day on the weekends. Sports courts lighting would be pole mounted, equipped with top shielding and focused on the court area to minimize light spill and impacts to the night sky.

The above noted design features ensure the project would not create a new source of substantial light or glare that could adversely affect day or nighttime views in the area. This impact would be less than significant. No mitigation required.

4.1.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The Proposed Project is located in Mendocino County, an area rich in agricultural resources. The County grossed over $268 million in agricultural productivity, increasing value by 10.8 percent from 2016. Wine grapes are the County's leading agricultural commodity at $120 million.

The northeastern corner of Mendocino County contains a portion of the Mendocino National Forest (MNF). The MNF is comprised of 913,306 acres and is approximately 65 miles long and 35 miles wide. The MNF vegetation types include mixed conifer forests, oak woodlands and savannah, chaparral, annual and perennial grass glades, and wet meadows.

Jackson State Forest is located in the western part of the county and west of the Project Site. At 50,000 acres, Jackson Forest is California's largest state-owned forest and home to a significant percentage of second-growth redwoods.

The Project Site is designated Industrial General by the City of Willits General Plan and zoned Industrial Park and Heavy Industrial by the City Zoning Code. The Site is currently undeveloped and not used for any agricultural or forestry purpose.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

No impact.

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program, which identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service [DOC 2017a]. DOC manages an interactive website called the California Important Farmland Finder. This website program identifies the Project Site as being urban and built-up land, and therefore, not considered to be agriculturally important land [DOC 2017b]. No impact would occur, and no mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

No impact.

The site is zoned Industrial Park and Heavy Industrial in the City of Willits Zoning Code. This zoning district was not intended for agricultural uses. DOC also maintains mapping for Williamson Act contracts by county. As shown on the map for Mendocino County, the site is not subject to a Williamson Act contract. [DOC 2010]. Therefore, the Proposed Project would result in no impact to Williamson Act contract lands or land zoned for agricultural uses. No mitigation required.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

No impact.

The Project Site contains no forest or timber resources and is not zoned for forestland protection or timber production. There would be no impact, and no mitigation is required.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

No impact.

The Proposed Project would not convert forest land to non-forest use. There would be no impact, and no mitigation is required.

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Less than significant.

The Proposed Project is located within the City of Willits on land designated for development. The Project Site and immediately surrounding lands do not support farming of forest use. Therefore, Project development is not expected to result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Related impacts are considered less than significant. No mitigation is required.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality

4.3.1 Environmental Setting

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant.

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Mendocino County lies in the North Coast Air Basin (NCAB), which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma counties. The U.S. Environmental Protection Agency (USEPA) and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria air pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards are not to be exceeded during a three-year period.

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. However, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the state PM_{10} standard yet is in attainment for state standards for all other pollutants. By federal standards, the NCAB is in attainment for all pollutants.

The Mendocino County Air Quality Management District (MCAQMD) is the air pollution control agency for Mendocino County, which encompasses the Project Site. The agency's primary responsibility is ensuring that the federal and state ambient air quality standards are attained and maintained in the NCAB. The MCAQMD is responsible for permitting and inspection of stationary sources, enforcement of regulations

(including setting fees, levying fines, and enforcement actions), and ensuring that public nuisances are minimized.

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

Less than Significant.

As part of its enforcement responsibilities, the USEPA requires each State with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project Site is located within the NCAB, which is under the jurisdiction of the MCAQMD. The MCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the NCAB is in nonattainment. The NCAB is in nonattainment for State PM_{10} emission standards. In order to reduce such emissions, the NCAQMD drafted the 2005 Particulate Matter Attainment Plan (2005 PM Plan). The 2005 PM Plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) air quality standards while maintaining the attainment of federal standards. The plan's pollutant control strategies are action items for the MCAQMD to more stringently enforce and improve existing air quality regulations. The 2005 PM Plan includes action items for woodstoves, campgrounds, unpaved roads, construction and grading activities, new residential development, and open burning. The MCAQMD does not provide specific guidance measures which must be considered for compliance of proposed land use projects with the 2005 PM Plan. However, a project that results in an increase in the frequency or severity of existing air quality violations or causes or contributes to new air quality violations could be considered a project that inhibits the overall reduction goals of the 2005 PM Plan. As shown in *Tables 4.3-1* and *4.3-2* below, the Proposed Project would result in emissions that would be below the MCAQMD thresholds during both construction and operations. Therefore, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards. Thus, it can be assumed that the Project would not conflict with 2005 PM Plan. This impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

Less than Significant.

Construction Impacts

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive particulate matter emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved California Emissions Estimator Model (CalEEMod) computer program, designed to model emissions for land use development projects, based on typical construction requirements. See *Appendix A* for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in *Table 4.3-1*. Construction emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the MCAQMD's thresholds of significance.

Table 4.3-1. Construction-Related Emissions

Construction Year	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in 2021	4.08	40.66	22.60	0.04	24.79	12.32
Construction in 2022	9.11	33.98	44.71	0.08	39.96	5.59
Construction in 2023	8.77	30.70	43.34	0.08	39.77	5.41
MCAQMD Significance Threshold	*54*	*54*	*None*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.
Notes: ROG = reactive organic gas

As shown in *Table 4.3-1*, emissions generated during Project construction would not exceed the MCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. This impact is less than significant.

Long-Term Operational Impacts

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as ozone precursors such as ROGs and nitrogen oxide (NO_X). Project-generated increases in emissions would be predominantly associated with motor vehicle use.

Long-term operational emissions attributable to the Project are identified in *Table 4.3-2* and compared to the operational significance thresholds promulgated by the MCAQMD.

Table 4.3-2. Operational-Related Emissions

Emission Source	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Project Operations	2.06	2.16	4.25	0.01	66.99	6.83
Winter Emissions						
Project Operations	2.06	2.25	4.48	0.01	66.99	6.83
MCAQMD Regional Significance Thresholds (Pounds per day)	*180*	*42*	*250,000*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate identified by Fehr and Pers 2019.

As shown in *Table 4.3-2*, the Project's operational emissions would not exceed any MCAQMD thresholds for any criteria air pollutants. This impact is less than significant.

As identified in *Table 4.3-2*, the Basin is listed as a nonattainment as per state standards for PM_{10} and is in attainment or unclassified by state and federal standards for all other air quality emissions. O_3 is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. Particulate matter can adversely affect the human respiratory system. As shown in *Table 4.3-2*, the Proposed Project would result in increased emissions of the O_3 precursor pollutants ROG and NO_x, PM_{10}, and $PM_{2.5}$, however, the correlation between a project's emissions and increases in nonattainment days, or frequency or severity of related illnesses, cannot be accurately quantified. The overall strategy for reducing air pollution and related health effects in the Air District is contained in MCAQMD's Rules and Regulations. As noted above, the Project would increase the emission of these pollutants, but would not exceed the thresholds of significance established by the MCAQMD for purposes of reducing air pollution and its deleterious health effects.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

Less than Significant.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant (TAC) of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related annual emissions of $PM_{2.5}$ exhaust, considered a surrogate for DPM, would be a maximum of 2.04 pounds per day (see *Appendix A*) during construction activity. $PM_{2.5}$ exhaust is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$). Most $PM_{2.5}$ exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project Site, rather than a single location, because different types of construction activities (e.g., demolition, site preparation, building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or nine-year exposure period; further, such assessments should

be limited to the period/duration of activities associated with the Proposed Project. Consequently, an important consideration is the fact that construction of the Proposed Project is not anticipated to last nine consecutive years, the minimum duration of exposure from which to calculate health risk (Project construction is anticipated to last 24 months), and that on a day-to-day basis construction activity generally spans eight hours as opposed to throughout the entire day.

Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the fact that construction would not last as long as the minimum duration of exposure from which to calculate health risk, and the relatively short duration that construction activities (24 months) would occur, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics. This impact is less than significant.

Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project. Nor would the Project attract mobile sources that spend long periods queuing and idling at the site. The Project has been evaluated against the State and federal air pollution standards and as previously described, onsite Project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would not be a source of TACs and there would be no impact as a result of the Project during operations.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Project vicinity have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The analysis prepared for CO attainment in the South Coast Air Quality Management District (SCAQMD) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County can be used to demonstrate the potential for CO exceedances. The SCAQMD CO hot spot analysis was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County

Metropolitan Transportation Authority evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be LOS E at peak morning traffic and LOS F at peak afternoon traffic (LOS E and F are the two least efficient traffic LOS ratings). Even with the inefficient LOS and volume of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992).

According to the Traffic Study prepared for the Project (Fehr & Peers 2019), the Project is anticipated to generate 101 daily trips on average. Because the Proposed Project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values and related impacts are considered less than significant.

Would the Project:		Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

No Impact.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project does not include any uses considered to be associated with odors.

The Proposed Project does not include any of the described sources of obnoxious odors, and as such would not be a source of obnoxious odors. There would be no impact.

4.3.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.4 Biological Resources

This section is based on the analysis and recommendations presented in the Biological Resource Assessment (BRA) prepared for CCC Willits Center project (ECORP 2019a, *Appendix B*). As part of preparing the BRA, ECORP Biologists Carly Rich and Krissy Walker-Berry conducted a site reconnaissance visit on May 19, 2019. The Project Site was systematically surveyed on foot using a Trimble GPS unit with sub-meter accuracy, topographic maps, and aerial imagery to ensure total site coverage. Special attention was given to identifying those portions of the Project Site with the potential to support special-status species and sensitive habitats. During the field survey, biological communities occurring onsite were characterized. In addition to the reconnaissance survey, a focused special-status plant survey was conducted by ECORP botanist Krissy Walker-Berry and biologist Carly Rich on May 19, 2019.

4.4.1 Environmental Setting

The Project Site and surrounding areas are characterized by rural properties to the east and northeast opposite U.S. Highway 101, a hospital south of East Hill Road, and light industrial and commercial uses to the west and southwest. The nearest residential is located approximately 150 feet northwest of the Site (Redwood Meadows Senior Housing) and is buffered by the decommissioned railroad and Haehl Creek. The Project Site is composed of generally flat terrain. Elevation within the Project Site ranges from approximately 1,385 to 1,390 feet above mean sea level (MSL).

Vegetation Communities

Two vegetation community land cover types existing on the Project Site; annual grassland and riparian. These land cover types are described below.

Annual Grassland

Most of the Project Site can be characterized as annual grassland. It is predominantly composed of naturalized nonnative annual grasses with a mix of native forbs and grasses. The dominant species include ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Medusahead grass (*Elymus caput-medusae*), cut-leaved geranium (*Geranium dissectum*), and common vetch (*Vicia sativa*).

Riparian

The riparian portions of the site are generally located along the creek tributaries and the southern project boundary. The overstory consists of Oregon ash (*Fraxinus latifolia*), black oak (*Quercus kelloggii*), Arroyo willow (*Salix lasiolepis*), and California bay (*Umbellularia californica*). The shrub layer is dominated by Himalayan blackberry (*Rubus armeniacus*) and poison oak (*Toxicodendron diversilobum*). The forb and grass understory are dominated by Bolander's sedge (*Carex bolanderi*), Dudley's sedge (*Carex densa*), soft rush (*Juncus effusus*), pennyroyal (*Mentha pulegium*), and Kentucky bluegrass (*Poa pratensis*).

Wildlife

Habitats within the Project Site support a variety of common wildlife species such as red-shouldered hawk (*Buteo lineatus*), common raven (*Corvus corax*), and acorn woodpecker (*Melanerpes formicivorus*), among others. A detailed list of wildlife species observed in the vicinity of the Project Site during the May 2019 site visit is included in *Appendix B, Attachment E*.

Soils

According to the Soil Survey Geographic (SSURGO) Database for Mendocino County, California (Natural Resources Conservation Service [NRCS] 2019a), two soil units, or types, have been mapped within the Project Site (see *Figure 4.4-1. NRCS Soil Types*):

- 128 – Gielow sandy loam, 0 to 5 percent slopes; and
- 2160 – Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes, low ffd.

Gielow sandy loam, 0 to 5 percent slopes (128) is partially composed of Gielow, which are considered hydric when occurring in alluvial flats and flood plains, and Clear Lake, which are considered hydric when occurring on basin floors. The remaining soil type does not contain hydric components (NRCS 2019b).

February 21, 2019 (*Appendix B, Attachment D*). Water of the U.S./wetlands mapped within the Project Site include adjacent seasonal wetlands, seasonal wetland depressions, and non-wetland waters (see *Figure 4.4-2. Water of the U.S./Wetlands Delineation*). The total acreage of Waters of the U.S./wetlands is summarized in Table 1 and descriptions of the features are included in *Appendix B, Attachment C*.

Map Features

Approximate Project Area - 27.87 acres

Series Number - Series Description

128 - Gielow sandy loam, 0 to 5 percent slopes

2160 - Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes, low ffd

Base Source: NAIP 2016

ECORP: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\soils_and_geology\soils\Ukiah_NRCS_20190513.mxd (AMM)-amyers 5/13/2019

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 500

DRAFT

Map Date: 5/13/2019

Figure 4.4-1. NRCS Soil Types

2018-116.005 CCC Willits Center

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Figure 4.4-2. Waters of the U.S./Wetlands Delineation

Map Features

- Project Area - 27.81 acres
- Reference Coordinate (NAD83)

Sample Point Type

- Non-wetland
- Upland
- Wetland

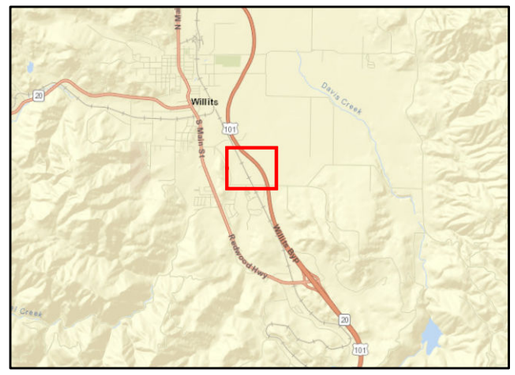
Aquatic Resources (1.07 acres)*[1]

- Adjacent Seasonal Wetlands - 0.37 acre
- Seasonal Wetland Depressions - 0.50 acre
- Non-Wetland Waters - 0.20 acre

[1] *Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.*

** The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.*

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



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ECORP: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\jurisdictional_delineation\usace_delineationv1\Ukiah_ARD_20190515.mxd(AMM) - amyers 5/15/2019

Photo Source: NAIP 2016
Boundary Source: LSA
Delineator(s): LSA
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

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Scale in Feet
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Map Date: 5/15/2019

2018-116.005 CCC Willits Center

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Potential Waters of the U.S.

A total of 1.07 acres of potential Waters of the U.S./wetlands were mapped within the Project Site during the Aquatic Resources Delineation (LSA Associates 2018; *Appendix B, Attachment C*). Pursuant to Regulatory Guidance Letter No. 16-01, Jurisdictional Determinations, the USACE provided a Preliminary Jurisdictional Determination on the extent of Waters of the U.S./wetlands on the Project Site on Table 4.4-1. Water of the U.S./Wetlands within the Project Site.

Type	Acres
Wetlands	
Adjacent Seasonal Wetlands	0.37
Seasonal Wetland Depressions	0.50
Other Waters	
Non-Wetland Waters	0.20
Total:	**1.07**

Special-Status Plants

There are 32 special-status vascular plant species that were identified as having the potential to occur within the Project Site based on the literature review (see *Appendix B, Table 2*). Upon further analysis and after the reconnaissance site visit, seven species were determined to be absent from the Project Site due to the lack of suitable habitat or being outside of the elevation range of that species. No further discussion of these species is provided in this analysis. A brief description of the remaining 25 species that have the potential to occur within the Project Site are presented below.

Grass Alisma

Grass alisma (*Alisma gramineum*) is not listed pursuant to either the federal or California ESAs, but is designated as a California Rare Plant Rank (CRPR) 2B.2 species. This species is an aquatic herbaceous rhizomatous perennial that occurs in assorted shallow freshwater marshes and swamps (CNPS 2019). Grass alisma blooms from June to August and is known to occur at elevations ranging from 1,280 to 5,906 feet above MSL (CNPS 2019). The current range of this species in California includes Lassen, Mendocino, Modoc, and Siskiyou counties (CNPS 2019).

There are two CDFW California Natural Diversity Database- (CNDDB)-documented occurrences of grass alisma within five miles of the Project Site (CDFW 2019a). The wetlands within the Project Site provide suitable habitat for this species. Grass alisma has potential to occur onsite.

Humboldt County Milkvetch

Humboldt County milkvetch (*Astragalus agnicidus*) is not listed pursuant to the ESA, but is listed as endangered pursuant to the California ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous perennial that occurs in openings, disturbed areas, and sometimes roadsides in broadleafed upland forest and North Coast coniferous forest (CNPS 2019). Humboldt County milkvetch blooms from April to September and is known to occur at elevations ranging from 394 to 2,625 feet above MSL (CNPS 2019). Humboldt County milkvetch is endemic to California; the current range of this species includes Humboldt and Mendocino counties (CNPS 2019).

There are no CNDDB-documented occurrences of Humboldt County milkvetch within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities within the Project Site provides marginal suitable habitat for this species. Humboldt County milkvetch has low potential to occur onsite.

Rattan's Milkvetch

Rattan's milkvetch (*Astragalus rattanii* var. *rattanii*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous perennial that occurs along gravelly streambanks in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS 2019). Rattan's milkvetch blooms from April to July and is known to occur at elevations ranging from 98 to 2,707 feet above MSL (CNPS 2019). Rattan's milkvetch is endemic to California; the current range of this species includes Colusa, Glenn, Humboldt, Lake, Mendocino, Plumas, Sonoma, Tehama, and Trinity counties (CNPS 2019).

There are no CNDDB-documented occurrences of Rattan's milkvetch within five miles of the Project Site (CDFW 2019a). However, the wetlands within the Project Site provide marginal suitable habitat for this species. Rattan's milkvetch has low potential to occur onsite.

Watershield

Watershield (*Brasenia schreberi*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 2B.3 species (CNPS 2019). This species is an aquatic herbaceous rhizomatous perennial that occurs usually in freshwater marshes and swamps (CNPS 2019). Watershield blooms from June through September and is known to occur from 98 to 7,218 feet above MSL (CNPS 2019). The current range for watershield in California includes Butte, Calaveras, El Dorado, Fresno, Kern, Lake, Lassen, Mendocino, Merced, Nevada, Plumas, Sacramento, Shasta, Sierra, Siskiyou, San Joaquin, Sonoma, Sutter, Tehama, Trinity, Tulare, and Tuolumne counties. Its presence in Butte and Kern counties is uncertain (CNPS 2019).

There are no CNDDB-documented occurrences of watershield within five miles of the Project Site (CDFW 2019a). However, the wetlands within the Project Site provide suitable habitat for this species. Watershield has potential to occur onsite.

Deep-Scarred Cryptantha

Deep-scarred cryptantha (*Cryptantha excavata*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs on sandy or gravelly substrates in cismontane woodland (CNPS 2019). Deep-scarred cryptantha blooms from April to May and is known to occur at elevations ranging from 328 to 1,640 feet above MSL (CNPS 2019). Deep-scarred cryptantha is endemic to California; its current range includes Colusa, Lake, Mendocino, and Yolo counties (CNPS 2019).

There are no CNDDB-documented occurrences of deep-scarred cryptantha within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities within the Project Site

provide marginal suitable habitat for this species. Deep-scarred cryptantha has low potential to occur onsite.

Mountain Lady's Slipper

Mountain lady's-slipper (*Cypripedium montanum*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous perennial rhizome that occurs in broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest, and cismontane woodland (CNPS 2019). Mountain lady's slipper blooms between March and August and is known to occur at elevations ranging from 607 to 7,300 feet above MSL (CNPS 2019). The current range for Mountain lady's slipper in California includes Del Norte, Glenn, Humboldt, Madera, Mendocino, Modoc, Mariposa, Plumas, Santa Cruz, Shasta, Sierra, Siskiyou, San Mateo, Sonoma, Tehama, Trinity, and Tuolumne counties. Its distribution is uncertain, but presumed extirpated if once present in Santa Cruz and San Mateo counties (CNPS 2019).

There are no CNDDB-documented occurrences of mountain lady's-slipper within five miles of the Project Site (CDFW 2019b). However, the annual grassland and riparian communities within the Project Site provide suitable habitat for this species. Mountain lady's-slipper has potential to occur onsite.

Roderick's Fritillary

Roderick's fritillary (*Fritillaria roderickii*) is not listed pursuant to the ESA, but is listed as endangered pursuant to the California ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous bulbiferous perennial that occurs in coastal bluff scrub, coastal prairie, and valley and foothill grassland (CNPS 2019). Roderick's fritillary blooms from March to May and is known to occur at elevations ranging from 49 to 1,312 feet above MSL (CNPS 2019). Roderick's fritillary is endemic to California; the current range of this species includes Mendocino and Sonoma counties (CNPS 2019).

There are no CNDDB-documented occurrences of Roderick's fritillary within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities within the Project Site provide suitable habitat for this species. Roderick's fritillary has potential to occur onsite.

Pacific Gilia

Pacific gilia (*Gilia capitata* ssp. *pacifica*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in coastal bluff scrub, openings in chaparral, coastal prairie, and valley and foothill grassland (CNPS 2019). Pacific gilia blooms from April to August and is known to occur at elevations ranging from 16 to 5,463 feet above MSL (CNPS 2019). The current range for Pacific gilia in California includes Del Norte, Humboldt, Mendocino, and Sonoma counties (CNPS 2019).

There is one CNDDB-documented occurrence of Pacific gilia within five miles of the Project Site (CDFW 2019a). The annual grassland community within the Project Site provides suitable habitat for this species. Pacific gilia has potential to occur onsite.

Congested-Headed Hayfield Tarplant

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*) is not listed pursuant to either federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs sometime on roadsides, and often in valley and foothill grassland (CNPS 2019). Congested-headed hayfield tarplant blooms from April through November and is known to occur at elevations ranging from 66 to 1,837 feet above MSL (CNPS 2019). Congested-headed hayfield tarplant is endemic to California; the current range of this species includes Lake, Mendocino, Marin, San Francisco, San Mateo, and Sonoma counties (CNPS 2019).

There are no CNDDB-documented occurrences of congested-headed hayfield tarplant within five miles of the Project Site (CDFW 2019a). However, the annual grassland community within the Project Site provides suitable habitat for this species. Congested-headed hayfield tarplant has potential to occur onsite.

Glandular Western Flax

Glandular western flax (*Hesperolinon adenophyllum*) is not listed pursuant to either the federal or California ESAs , but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, and valley and foothill grassland, usually in serpentinite soils (CNPS 2019). Glandular western flax blooms from May to August and is known to occur at elevations ranging from 492 to 4,314 feet above MSL (CNPS 2019). Glandular western flax is endemic to California; the current range of this species includes Humboldt, Lake, and Mendocino counties. Its distribution is uncertain, but presumed extirpated if once present in Humboldt County (CNPS 2019).

There are three CNDDB-documented occurrences of glandular western flax within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities within the Project Site provide marginal suitable habitat for this species. Glandular western flax has low potential to occur onsite.

Thin-Lobed Horkelia

Thin-lobed horkelia (*Horkelia tenuiloba*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in mesic, sandy openings within broadleafed upland forest, chaparral, and valley and foothill grassland (CNPS 2019). Thin-lobed horkelia blooms from May through August and is known to occur at elevations ranging from 164 to 1,640 feet above MSL (CNPS 2019). Thin-lobed horkelia is endemic to California; the current range of this species includes Mendocino, Marin, and Sonoma counties (CNPS 2019).

There are no CNDDB-documented occurrences of thin-lobed horkelia within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities within the Project Site provide marginal suitable habitat for this species. Thin-lobed horkelia has low potential to occur onsite.

Burke's Goldfields

Burke's goldfields (*Lasthenia burkei*) is listed as endangered pursuant to both the federal and California ESAs, and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in mesic meadows and seeps and vernal pools (CNPS 2019). Burke's goldfields blooms between April and June and is known to occur at elevations ranging from 49 to 1,969 feet above MSL (CNPS 2019). Burke's goldfields

is endemic to California; its current range includes Lake, Mendocino, Napa, and Sonoma counties (CNPS 2019).

There are no CNDDB-documented occurrences of Burke's goldfields within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Burke's goldfields has potential to occur onsite.

There is no critical habitat for this species mapped within the Project Site.

Contra Costa Goldfields

Contra Costa goldfields (*Lasthenia conjugens*) is listed as endangered pursuant to the ESA, but not listed pursuant to the California ESA, and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland, and vernal pools (CNPS 2019). Contra Costa goldfields blooms between March and June and is known to occur at elevations ranging from sea level to 1,542 feet above MSL (CNPS 2019). Contra Costa goldfields is endemic to California; its current range includes Alameda, Contra Costa, Mendocino, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Solano, and Sonoma counties. It is likely extirpated from Mendocino, Santa Barbara, and Santa Clara counties (CNPS 2019).

There are no CNDDB-documented occurrences of Contra Costa goldfields within five miles of the Project Site (CDFW 2019a). However, the annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Contra Costa goldfields has potential to occur onsite.

There is no critical habitat for this species mapped within the Project Site.

Baker's Meadowfoam

Baker's meadowfoam (*Limnanthes bakeri*) is not listed pursuant to the ESA, but is listed as rare pursuant to the California ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in meadows and seeps, freshwater marshes and swamps, vernally mesic valley and foothill grassland, and vernal pools (CNPS 2019). Baker's meadowfoam blooms from April to May and is known to occur at elevations ranging from 574 to 2,986 feet above MSL (CNPS 2019). Baker's meadowfoam is endemic to California; the current range of this species includes Mendocino County (CNPS 2019).

There are 11 CNDDB-documented occurrences of Baker's meadowfoam within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Baker's meadowfoam has potential to occur onsite.

Milo Baker's Lupine

Milo Baker's lupine (*Lupinus milo-bakeri*) is not listed pursuant to the ESA, but is listed as threatened pursuant to the California ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in cismontane woodland often along roadsides, and valley and foothill grassland (CNPS 2019). Milo Baker's lupine blooms from June to September and is known to occur at elevations

ranging from 1,296 to 1,411 feet above MSL (CNPS 2019). Milo Baker's lupine is endemic to California; the current range of this species includes Colusa and Mendocino counties (CNPS 2019).

There are no CNDDB-documented occurrences of Milo Baker's lupine within five miles of the Project Site (CDFW 2019a). However, the annual grassland community within the Project Site provides suitable habitat for this species. Milo Baker's lupine has potential to occur onsite.

Baker's Navarretia

Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in vernal pools and mesic areas within cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (CNPS 2019). Baker's navarretia blooms from April to July and is known to occur at elevations ranging from 16 to 5,709 feet above MSL (CNPS 2019). Baker's navarretia is endemic to California; the current range of this species includes Colusa, Glenn, Lake, Lassen, Mendocino, Marin, Napa, Solano, Sonoma, Sutter, Tehama, and Yolo counties (CNPS 2019).

There are five CNDDB-documented occurrences of Baker's navarretia within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Baker's navarretia has potential to occur onsite.

Gairdner's Yampah

Gairdner's yampah (*Perideridia gairdneri*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous perennial that occurs in vernal pools and vernally mesic areas of broadleafed upland forest, chaparral, coastal prairie, and valley and foothill grassland (CNPS 2019). Gairdner's yampah blooms from June to October and is known to occur at elevations ranging from 0 to 2,001 feet above MSL (CNPS 2019). Gairdner's yampah is endemic to California; the current range of this species includes Contra Costa, Kern, Los Angeles, Mendocino, Monterey, Marin, Napa, Orange, San Benito, Santa Clara, Santa Cruz, San Diego, San Luis Obispo, San Mateo, Solano, and Sonoma counties (CNPS 2019). It is considered extirpated from Los Angeles, Orange, and San Diego counties. Its distribution is uncertain and presumed extirpated if once present in San Mateo County (CNPS 2019).

There are no CNDDB-documented occurrences of Gairdner's yampah within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Gairdner's yampah has potential to occur onsite.

White-Flowered Rein Orchid

White-flowered rein orchid (*Piperia candida*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest, sometimes on serpentinite soils (CNPS 2019). White-flowered rein orchid blooms from March to September and is known to occur at elevations ranging from 98 to 4,298 feet above MSL (CNPS 2019).

The current range for white-flowered rein orchid in California includes Del Norte, Humboldt, Mendocino, Santa Clara, Santa Cruz, Siskiyou, San Mateo, Sonoma, and Trinity counties (CNPS 2019).

There is one CNDDB-documented occurrence of white-flowered rein orchid within five miles of the Project Site (CDFW 2019a). The riparian community within the Project Site provides suitable habitat for this species. White-flowered rein orchid has potential to occur onsite.

Mayacamas Popcornflower

Mayacamas popcornflower (*Plagiobothrys lithocaryus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1A species. This species is an herbaceous annual that occurs in mesic areas of chaparral, cismontane woodland, and valley and foothill grassland (CNPS 2019). Mayacamas popcornflower blooms from April to May and is known to occur at elevations ranging from 984 to 1,476 feet above MSL (CNPS 2019). Mayacamas popcornflower is endemic to California; the current range of this species includes Lake and Mendocino counties (CNPS 2019). It is considered extirpated from Lake County. Its distribution is uncertain, but presumed extirpated if once present in Mendocino County (CNPS 2019).

There are no CNDDB-documented occurrences of Mayacamas popcornflower within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Mayacamas popcornflower has potential to occur onsite.

Davy's Semaphore Grass

Davy's semaphore grass (*Pleuropogon californicus* var. *davyi*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.3 species. This species is an herbaceous rhizomatous perennial that occurs in cismontane woodland, lower montane coniferous forest, and meadows and seeps (CNPS 2019). Davy's semaphore grass blooms from March to June and is known to occur at elevations ranging from 492 to 2,001 feet above MSL (CNPS 2019). Davy's semaphore grass is endemic to California; the current range of this species includes Lake and Mendocino counties (CNPS 2019).

There are no CNDDB-documented occurrences of Davy's semaphore grass within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities as well as the wetlands within the Project Site provide suitable habitat for this species. Davy's semaphore grass has potential to occur onsite.

North Coast Semaphore Grass

North Coast semaphore grass (*Pleuropogon hooverianus*) is not listed pursuant to the ESA, but is listed as threatened pursuant to the California ESA and is designated as a CRPR 1B.1 species. This species is an herbaceous rhizomatous perennial that occurs in open and mesic areas in broadleafed upland forest, meadows and seeps, and North Coast coniferous forest (CNPS 2019). North Coast semaphore grass blooms from April to June and is known to occur at elevations ranging from 33 to 2,201 feet above MSL (CNPS 2019). North Coast semaphore grass is endemic to California; the current range of this species includes Mendocino, Marin, and Sonoma counties (CNPS 2019).

There are six CNDDB-documented occurrences of North Coast semaphore grass within five miles of the Project Site, and one CNDDB-documented occurrence (two populations) within the Project Site (CDFW 2019a). These two populations were identified and mapped during the focused plant survey for this species conducted by ECORP botanist Krissy Walker-Berry and biologist Carly Rich the day of the site visit. The results of this survey are included on *Figure 4.4-3. North Coast Semaphore Grass Locations*. Mesic areas within the annual grassland and riparian communities, as well as the wetlands within the Project Site, provide suitable habitat for this species. North Coast semaphore grass is present onsite.

Nuttall's Ribbon-Leaved Pondweed

Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 2B.2 species. This species is an aquatic herbaceous rhizomatous perennial that occurs in assorted shallow freshwater marshes and swamps (CNPS 2019). Nuttall's ribbon-leaved pondweed blooms from June to September and is known to occur at elevations ranging from 1,211 to 7,126 feet above MSL (CNPS 2019). The current range for Nuttall's ribbon-leaved pondweed in California includes El Dorado, Madera, Mendocino, Modoc, Mariposa, Placer, Plumas, Shasta, and Tuolumne counties (CNPS 2019).

There is one CNDDB-documented occurrence of Nuttall's ribbon-leaved pondweed within five miles of the Project Site (CDFW 2019a). The riparian community and wetlands within the Project Site provide suitable habitat for this species. Nuttall's ribbon-leaved pondweed has potential to occur onsite.

Two-Fork Clover (Showy Indian Clover)

Two-fork clover (*Trifolium amoenum*) is listed as endangered pursuant to the ESA, not listed pursuant to the California ESA, and is designated as a CRPR 1B.1 species. The species is an herbaceous annual that occurs in coastal bluff scrub and valley and foothill grassland communities and is sometimes associated with serpentinite soils (CNPS 2019).

Two-fork clover blooms from April through June and is known to occur at elevations ranging from 16 to 1,362 feet above MSL (CNPS 2019). Two-fork clover is endemic to California; the current range of this species includes Marin, Napa, Santa Clara, San Mateo, Solano, and Sonoma counties. It is considered extirpated from Napa, Santa Clara, and Solano counties. Its distribution is uncertain and presumed extirpated if once present in Sonoma County (CNPS 2019).

There are no CNDDB-documented occurrences of two-fork clover within five miles of the Project Site (CDFW 2019a). The annual grassland community within the Project Site provides suitable habitat for this species. Two-fork clover has potential to occur onsite.

Map Features

Project Area - 27.81 acres

Plants

North Coast Semaphore Grass

Aquatic Resources

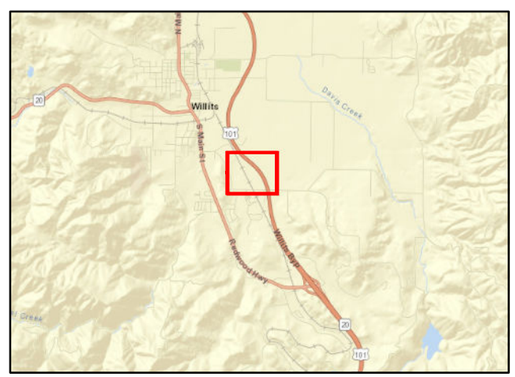
Adjacent Seasonal Wetlands

Seasonal Wetland Depressions

Non-Wetland Waters

Map Date: 6/13/2019

Sources: ESRI, NAIP (2018), LSA, CDFW (CNDDB, May 2019)



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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
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Figure 4.4-3. North Coast Semaphore Grass Locations

2018-116.005 CCC Willits Center

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Santa Cruz Clover

Santa Cruz clover (*Trifolium buckwestiorum*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in gravelly sites and on the margins of broadleaved upland forest, cismontane woodland, and coastal prairie (CNPS 2019). Santa Cruz clover blooms from April through October and is known to occur at elevations ranging from 344 to 2,001 feet above MSL (CNPS 2019). Santa Cruz clover is endemic to California; its current range includes Mendocino, Monterey, Santa Clara, Santa Cruz, San Mateo, and Sonoma counties (CNPS 2019).

There are no CNDDB-documented occurrences of Santa Cruz clover within five miles of the Project Site (CDFW 2019a). The annual grassland community within the Project Site provides marginal suitable habitat for this species. Santa Cruz clover has low potential to occur onsite.

Oval-Leaved Viburnum

Oval-leaved viburnum (*Viburnum ellipticum*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 2B.3 species. This species is a perennial deciduous shrub that occurs in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS 2019). Oval-leaved viburnum blooms from May through June and is known to occur at elevations ranging from 705 to 4,593 feet above MSL (CNPS 2019). The current range of this species in California includes Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties (CNPS 2019).

There are no CNDDB-documented occurrences of oval-leaved viburnum within five miles of the Project Site (CDFW 2019a). The annual grassland and riparian communities within the Project Site provide marginal suitable habitat for this species. Oval-leaved viburnum has low potential to occur onsite.

Invertebrates

No special-status invertebrate species were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). No further discussion of invertebrate species is provided in this analysis.

Fish

No special-status fish species were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). No further discussion of fish species is provided in this analysis.

Amphibians

There are three special-status amphibian species that were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). Upon further analysis and after the reconnaissance site visit, one species was determined to be absent from the Project Site due to the Project Site being outside of the geographical range of this species. No further discussion of this species is provided in this analysis. A brief description of the remaining two species that have the potential to occur within the Project Site are presented below.

Foothill Yellow-Legged Frog

Five of the six populations of the foothill yellow-legged frog (*Rana boylii*) have been list as endangered or threatened under the California ESA (California Fish and Game Commission 2017) and is a California species of special concern (SSC). The North Coast population, where the Proposed Project is located, is not listed threatened or endangered under California ESA. Foothill Yellow-Legged frog occurs in the Coast Ranges, from the Oregon border south to the Transverse Mountains in Los Angeles County, west of the Cascade crest in most of northern California, and in the Sierra Nevada foothills south to Kern County, from sea level to 6,000 feet above MSL (Stebbins 1985).

Foothill yellow-legged frogs occupy rocky streams in valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow plant communities. They are rarely found far from water and will often dive into water to take refuge under rocks or sediment when disturbed (Zeiner et al., 1988).

There are three CNDDB-documented occurrences of foothill yellow-legged frog within five miles of the Project Site (CDFW 2019b). The riparian community as well as the wetlands within the Project Site provide suitable habitat for this species. Foothill yellow-legged frog has potential to occur onsite.

Red-Bellied Newt

The red-bellied newt (*Taricha rivularis*) is one of three newts of the genus Taricha endemic to California (CaliforniaHerps.com 2019). All *Taricha* are endemic to northwestern North America west of the Sierra Nevada/Cascade divide, from Alaska south to southern California (San Diego County) (Stebbins 2003). The red-bellied newt is a California endemic and has the most restricted range of all *Tarichas*. It occurs along coastal California from Sonoma and Lake counties north through Mendocino County to southwestern Humboldt County. An isolated population occurs in the Stevens Creek Watershed of Santa Clara County, 80 miles south of the main distribution of this species (Reilly et al. 2014). In parts of its range, including the Steven's Creek Watershed, red-bellied salamanders co-occur with both coast range newts (*T. torosa*) and rough-skinned newts (*T. granulosa*). Red-bellied salamanders are dark brown, dark gray, or black above, bright tomato red ventrally and lack costal and nasolabial grooves (Stebbins 2003). One characteristic that differentiates *T. rivularis* from the other *Taricha* is a dark band of pigment across the vent (Stebbins 2003), especially noticeable in breeding males.

This is a species of cold creeks, streams, and rivers in coastal woodlands, and almost exclusively tied to Coast Redwood (*Sequoia sempervirens*) forests. Typically, breeding season starts in February with adults breeding through May in rocky stream substrates of cold, rapidly moving streams. Egg masses averaging 10 eggs are attached to the bottoms of rocks or vegetation in fast moving water (CaliforniaHerps.com 2019). Incubation can last from 16–34 days and proceeds more quickly in warmer water (CaliforniaHerps.com 2019). Larvae tend to be stream type, with reduced external gills, short tail fins, and short toes (Stebbins 2003). Larvae metamorphose in late August at 45–55 mm total length (Stebbins and McGinnis 2012).

There are three CNDDB-documented occurrences of red-bellied newt within five miles of the Project Site (CDFW 2019a). The riparian community as well as the wetlands within the Project Site provide suitable habitat for this species. Redd-bellied newt has potential to occur onsite.

Reptiles

There is one special-status reptile species that was identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). A brief description of this species is provided below.

Northwestern Pond Turtle

The Northwestern pond turtle (*Actinemys marmorata*) is not listed pursuant to either the federal or California ESAs; however, it is designated as a CDFW SSC. Northwestern pond turtles occur in a variety of fresh and brackish water habitats including marshes, lakes, ponds, and slow-moving streams (Jennings and Hayes 1994). This species is primarily aquatic; however, they typically leave aquatic habitats in the fall to reproduce and to overwinter (Jennings and Hayes 1994). Deep, still water with abundant emergent woody debris, overhanging vegetation, and rock outcrops is optimal for basking and thermoregulation. Although adults are habitat generalists, hatchlings and juveniles require shallow edgewater with relatively dense submergent or short emergent vegetation in which to forage.

Western pond turtles are typically active between March and November. Mating generally occurs during late April and early May, and eggs are deposited between late April and early August (Jennings and Hayes 1994). Eggs are deposited within excavated nests in upland areas, with substrates that typically have high clay or silt fractions (Jennings and Hayes 1994). The majority of nesting sites are located within 650 feet (200 meters) of the aquatic sites; however, nests have been documented as far as 1,310 feet (400 meters) from the aquatic habitat.

There is one CNDDB-documented occurrence of Northwestern pond turtle within five miles of the Project Site (CDFW 2019a). The riparian community and wetlands within the Project Site provide suitable habitat for this species. Northwestern pond turtle has potential to occur onsite.

Birds

There are seven special-status bird species that were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). Upon further analysis and after the reconnaissance site visit, four species were considered to be absent from the Project Site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis. A brief description of the remaining three special-status bird species that have the potential to occur within the Project Site is presented below.

Sharp-Shinned Hawk

Sharp-shinned hawk (*Accipiter striatus*) is not listed pursuant to either the federal or California ESAs. However, it is a CDFW "watch list" species and currently tracked in the CNDDB. Their breeding range in California is poorly known but breeding or summering sharp-shinned hawks have occurred throughout the state (Small 1994) (Bildstein and Meyer 2000). They nest in most forest types, particularly dense stands

with at least some conifers (Bildstein and Meyer 2000). Breeding occurs during April through August. The species is a common migrant and winter resident in the Central Valley of California.

There are no CNDDB-documented occurrences of sharp-shinned hawk within five miles of the Project Site (CDFW 2019a). Large trees within the Project Site provide marginal suitable nesting habitat for this species. Sharp-shinned hawk has low potential to occur onsite.

Yellow-Breasted Chat

Yellow-breasted chat (*Icteria virens*) is a CDFW SSC but has no federal special status. Yellow-breasted chat nest in North America and winter from southern Texas into Mexico and Guatemala (Comrack 2008). In California, the breeding range generally includes northern and northwestern California, the Sierra Nevada foothills south to Kern County, coastal valleys from Santa Clara County south to Baja California, scattered locations east of the Sierran crest, and along the Colorado River. Yellow-breasted chat typically nests within early successional riparian habitat with well-developed shrub layers and an open canopy along creeks, streams, sloughs, and rivers (Comrack 2008). Nesting occurs during May through August.

There is one CNDDB-documented occurrence of yellow-breasted chat within five miles of the Project Site (CDFW 2019a). Trees within the riparian community within the Project Site provide suitable nesting habitat for this species. Yellow-breasted chat has potential to occur onsite.

Yellow Warbler

Yellow warbler (*Setophaga petechia*) is a CDFW SSC but has no federal special status. Yellow warbler nest in from Baja California northward to Alaska and winter from southern California to South America (American Ornithologists Union [AOU] 1983). Breeding occurs throughout much of California up to 8,000 feet above MSL, except the Central Valley and southeastern deserts (Heath 2008). Breeding habitat includes riparian vegetation in close proximity to water along streams and wet meadows (Heath 2008). During migration, yellow warbler may occur in a wide variety of woodland habitats throughout California. The nesting season is May through August.

There is one CNDDB-documented occurrence of yellow warbler within five miles of the Project Site (CDFW 2019a). Trees within the riparian community within the Project Site provide suitable nesting habitat for this species. Yellow warbler has potential to occur onsite.

Mammals

There are six special-status mammal species that were identified as having potential to occur within the Project Site based on the literature review (*Appendix B, Table 2*). Upon further analysis and after the reconnaissance site visit, three species were considered to be absent from the Project Site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis. Brief descriptions of the remaining three species that have the potential to occur within the Project Site are presented below.

American Badger

The American badger (*Taxidea taxus*) is designated in California as an SSC. The species historically ranged throughout much of the state, except in humid coastal forests. Badgers were once numerous in the

Central Valley; however, populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties (Williams 1986). Badgers occupy a variety of habitats, including grasslands and savannas. The principal requirements seem to be significant food supply, friable soils, and relatively open, uncultivated ground (Williams 1986).

There are no CNDDB-documented occurrences of American badger within five miles of the Project Site (CDFW 2019a). The annual grassland community within the Project Site provides marginal suitable habitat for this species. American badger has low potential to occur onsite.

Ringtail

Ringtail (*Bassariscus astutus*) is not listed pursuant to the federal or California ESAs, but is designated as Fully Protected in California by CDFW. This is a smallish procyonid, related to the widespread raccoon (*Procyon lotor*) and neotropical white-nosed coati (*Nasua narica*). Ringtails are mesocarnivores of riparian areas, especially with abundant rocky outcrops, in low- to middle-elevation drainages in blue oak woodlands, foothill pine/oak forests, chaparral, ponderosa pine woodlands, black oak woodlands, riparian deciduous forests, and mixed coniferous forest (Verner and Boss 1980). Highly nocturnal, ringtails consume small rodents, snakes, birds and their eggs, invertebrates, and some fruits, nuts, and carrion (Zeiner et al. 1990).

There are no CNDDB-documented occurrences of ringtail within five miles of the Project Site (CDFW 2019a). Large trees within the Project Site provide suitable habitat for this species. Ringtail has potential to occur onsite.

Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the federal or California ESAs; however, this species is considered an SSC by CDFW. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large "rabbit-like" ears. This species occurs throughout the west and ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. This species has been reported from a wide variety of habitat types and elevations from sea level to 10,827 feet above MSL. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (Western Working Bat Group [WBWG] 2019).

There is one CNDDB-documented occurrence of Townsend's big-eared bat within five miles of the Project Site (CDFW 2019a). Trees within the riparian community within the Project Site provide marginal suitable roosting habitat for this species. Townsend's big-eared bat has low potential to occur onsite.

Wildlife Movement Corridors

The Project Site is largely undeveloped with several wetland features scattered throughout. Wildlife likely use the riparian and annual grassland communities as well as the wetland features for movement and dispersal. Wildlife species that may use the Project Site as a migratory or movement corridor include birds such as passerines, raptors, wading birds, and waterfowl. Highly mobile mammal species such as coyote (*Canis latrans*) and raccoon are expected to occasionally move through the Project Site.

Sensitive Natural Communities

One sensitive natural community was identified as having the potential to occur within the Project Site based on the literature review: Oak Woodland (CDFW 2019a). However, based on the site visit, there is no oak woodland vegetation community on the Project Site and sensitive natural communities are not further discussed.

4.4.2 Regulatory Setting

Federal Regulations

Federal Endangered Species Act

The ESA protects plants and animals that are listed by the USFWS and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). The ESA requires that at the same time the decision is made to list a species, the Secretary of the Interior must develop a recovery plan for the species and, with certain exceptions, designate the critical habitat of the species. Critical habitat consists of "the specific areas within the geographical area occupied by the species, at the time it is listed … on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection."

Section 7

Under Section 7 of the ESA, federal agencies are required to consult with the USFWS and/or NMFS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS and/or NMFS reviews and approves a Biological Assessment (BA) and then may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species.

Section 10

When no discretionary action is being taken by a federal agency, but a project may result in the take of listed species, an incidental take permit under Section 10 of the ESA is necessary. The purpose of the

incidental take permit is to authorize the take of federally listed species that may result from an otherwise lawful activity; not to authorize the activities themselves. In order to obtain an incidental take permit under Section 10, an application must be submitted that includes a Habitat Conservation Plan (HCP). In some instances, applicants, USFWS, and/or NMFS may determine that an HCP is necessary or prudent, even if a discretionary federal action will not occur. The purpose of the HCP planning process associated with the permit application is to ensure that adequate minimization and mitigation for impacts to listed species and/or their critical habitat will occur.

Magnuson-Stevens Fishery Conservation and Management Act

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), federal agencies are required to consult with the NMFS for activities that may affect Essential Fish Habitat (EFH). EFH are the waters and substrate necessary for fish spawning, breeding, feeding, or growth to maturity, and include several important components: adequate substrate; water quality; water quantity, depth, and velocity; channel gradient and stability; food; cover, and habitat complexity; space; access and passage; and habitat connectivity. The EFH consultation process is separate from ESA consultation, though the two often happen simultaneously through the Section 7 ESA BA. The EFH consultation with NMFS may result in project conservation recommendations to avoid, reduce, or compensate impacts to EFH.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. USFWS may authorizes take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or

fill material into "Waters of the U.S." without a permit from the USACE. The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The USEPA also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

The alteration of a USACE federally authorized civil works project requires a permit pursuant to Section 408 (33 USC 408, Section 14 of the Rivers and Harbors Act of 1899). Projects with minimal impacts require approval by the USACE Sacramento District Construction Operations Group; however, projects with more substantial impacts may require USACE Headquarters review. Coordination with the Central Valley Flood Protection Board, who serve as the Non-Federal Sponsor, is required as a part of the process of obtaining a Section 408 permit.

State and Local Regulations

California Fish and Game Code

California Endangered Species Act

The California ESA (California Fish and Game Code §§ 2050-2116) generally parallels the main provisions of the ESA, but unlike its federal counterpart, the California ESA also applies the take prohibitions to species proposed for listing (called "candidates" by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat.

Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any

time. Furthermore, the CDFW prohibits any state agency from issuing incidental take permits for fully protected species. The CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code §§ 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

California Native Birds

Several Sections (3800, 3513, and 3503) of the California Fish and Game Code specifically protect birds. Section 3800 protects birds of prey and states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the commission or a mitigation plan approved by CDFW for mining operations. Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Additionally, Subsection 3503.5 prohibits the take, possession, or destruction of any birds and their nests in the orders Strigiformes (owls) or Falconiformes (hawks and eagles). These provisions, along with the federal MBTA, serve to protect nesting native birds.

Species of Special Concern

SSC are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal or California ESAs, or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role;
- The species is listed as federally (but not state) threatened or endangered, or meets the state definition of threatened or endangered but has not formally been listed;
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status;
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with habitats that are threatened. Project-related impacts to SSC, state-threatened, or endangered species are considered "significant" under CEQA.

California Rare Plant Ranks

The CNPS maintains the *Inventory of Rare and Endangered Plants of California* (CNPS 2019), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, and/or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. The rank system was developed in collaboration with government, academia, non-governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for most plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat)
- Threat Rank 0.2 – Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank, and differences in Threat Ranks do not constitute additional or different protection (CNPS 2019). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2 are typically considered significant under CEQA Guidelines § 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the NPDES, including compliance with the California Storm Water NPDES General Construction Permit for discharges of stormwater runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a SWPPP. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

California Environmental Quality Act

In accordance with CEQA Guidelines § 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the federal and California ESAs and §§ 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either USFWS or CDFW.

CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant and are particularly relevant to SSC. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant and when considered unavoidable/unmitigable require lead agencies to prepare an EIR to thoroughly analyze and evaluate the impacts. Assessment of "impact significance" to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Specifically, § 15064.7 of CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded IS checklist contained in Appendix G of the CEQA Guidelines, which provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;

- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

Sensitive Natural Communities

Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. The CDFW maintains the *California Natural Communities List* (CDFW 2018), which provides a list of vegetation alliances, associations, and special stands as defined in the *Manual of California Vegetation* (Sawyer et al. 2009), along with their respective state and global rarity ranks. Natural communities with a state rarity rank of 1, 2, or 3 are considered *sensitive* natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

Wildlife Movement/Corridors and Nursery Sites

CDFW's Biogeographic Information and Observation System (BIOS) database, the CDFW Mule Deer Range, identifies winter range, migration corridors, critical range, or critical fawning areas for mule deer (CDFW 2019b). For urban settings such as the Project, riparian vegetated stream corridors can also serve as wildlife movement corridors.

For the purpose of this analysis, both mule deer migration corridors and riparian stream corridors were assessed for their potential to support wildlife movement on the Project.

For the purpose of this analysis, nursery sites include, but are not limited to, concentrations of nest or den sites such as heron rookeries, bat maternity roosts, and mule deer critical fawning areas. This data is available through CDFW's BIOS database or as occurrence records in the CNDDB and is supplemented with the results of the field reconnaissance.

Local Plans and Ordinances

City of Willits General Plan

The Vision 2020 City of Willits General Plan revision was adopted August 12, 1992. There is a brief discussion of Biological Resources in Section 4.700 (City of Willits 1992). Possible biological impacts identified within the plan that are associated with future development include loss of sensitive plant communities, heritage tree removal, and damage to existing riparian corridors. Development in accordance with the Revised General Plan could also result in substantial tree removal, in the absence of ameliorative policy mechanisms. Finally, development along existing creeks and streams could adversely affect riparian plants and wildlife relying upon such streams for habitat area (City of Willits 1992).

Relevant mitigation measures provided in Section 4.730 include the following:

4.731: Site-specific environmental review of all residential, commercial, and industrial development proposals shall be required; extra scrutiny shall be given to projects along riparian corridors and in areas containing Valley Oak Woodland or other habitats or species of significance.

4.733: The City shall pass, by December 1993, an ordinance calling for the preservation of Valley Oaks and other trees of significance.

4.135: Revegetation of sites using native species may be required as a condition of approval for development projects.

4.736: The City shall conform to the California Department of Fish and Game policy of no net loss of wetlands in the review of proposed development projects.

Although the mitigation measures call for the implementation of a tree ordinance by 1993, no such ordinance is currently included in the City of Willits Municipal Code (Willits Municipal Code 1979). There is also no current tree ordinance for the County of Mendocino.

4.4.3 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less than significant impact with mitigation incorporated.

Invertebrates and Fish

The Project Site does not provide suitable habitat for any special-status invertebrate or fish. Therefore, there would be no impact and these species are not discussed further.

Special Status Plants

A total of 24 special-status plants were found to have potential to occur on the Project Site. These include grass alisma, Humboldt County milkvetch, Rattan's milkvetch, watershield, deep-scarred cryptantha, mountain lady's slipper, Roderick's fritillary, pacific gilia, congested-headed hayfield tarplant, glandular western flax, thin-lobed horkelia, Burke's goldfields, Contra Costa goldfields, Baker's meadowfoam, Milo Baker's lupine, Baker's navarretia, Gairdner's yampah, white-flowered rein orchid, Mayacamas popcornflower, Davy's semaphore grass, Nuttall's ribbon-leaved pondweed, two-fork clover, Santa Cruz clover, and oval-leaved viburnum. Because reconnaissance level plant surveys confirmed the presence of North Coast semaphore grass on the Project Site, a focused special-status plant survey was conducted for this species by ECORP biologists on May 19, 2019. The resulting mapped locations of North Coast semaphore grass are shown in relation to proposed site development in *Figure 4.4-4. Biological Constraints*. As shown, the Project has been designed to avoid North Coast semaphore grass; consequently, no additional surveys are required for this species. However, guideline-level special-status plant surveys (early and late season) have not been conducted for the remaining 23 special-status plants with potential to occur on the Project Site. While these species were not observed during the reconnaissance survey, based on habitats present, it was determined they have the potential to occur onsite. Therefore, impacts to special status plants are considered potentially significant. Implementation of Mitigation Measure **BIO-1** would reduce this impact to less than significant.

Amphibians

The Project Site provides potential habitat for foothill yellow-legged frog, a CDFW SSC species and a candidate species for state listing as well as for red-bellied newt, a CDFW SSC species. While these species were not observed during the reconnaissance survey, based on habitats present, it was determined they have the potential to occur onsite. Therefore, impacts to special status amphibians are considered potentially significant. Implementation of Mitigation Measure **BIO-2** would reduce this impact to less than significant.

Reptiles

The Project Site provides suitable habitat for Northwestern pond turtle, which is a CDFW SSC species. Therefore, impacts to Northwestern pond turtle are considered potentially significant. Implementation of Mitigation Measure **BIO-3** would reduce this impact to less than significant.

Birds

Suitable nesting and/or wintering and foraging habitat for sharp-shinned hawk, yellow-breasted chat, and yellow warbler is present on the Project Site. If nesting individuals are present during construction, the Project could result in harassment to nesting individuals and may temporarily disrupt foraging activities.

Map Features

- Project Area

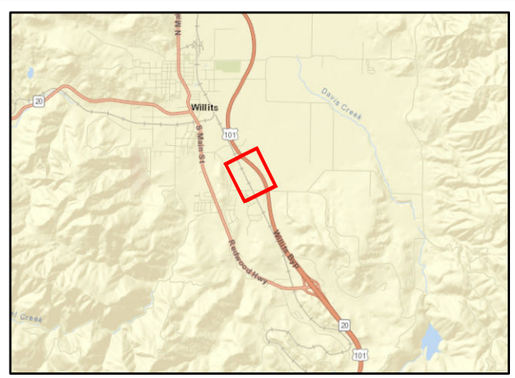
Plants

- North Coast Semaphore Grass

Aquatic Resources

- Adjacent Seasonal Wetlands
- Seasonal Wetland Depressions
- Non-Wetland Waters
- Impacted Wetlands
- Potentially Impacted Wetlands

Sources: ESRI, LSA, NMR Design



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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
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Map Date: 9/26/2019

DRAFT

Figure 4.4-4. Biological Constraints

2018-116.005 CCC Willits Center

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In addition to the above-listed special-status birds, all native birds, including raptors, are protected under the California Fish and Game Code and the MBTA. As such, impacts special status birds and nesting activity is considered potentially significant. Implementation of Mitigation Measure **BIO-4** would mitigate this impact to less than significant.

Mammals

The Project Site provides potential habitat for American badger, ringtail, and Townsend's big-eared bat. Because proposed development would impact their habitat(s), impacts to these species are considered potentially significant. Implementation of Mitigation Measures **BIO-5** would mitigate this impact to less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Less than significant with mitigation incorporated.

As shown on *Figure 4.4-2*, the Project Site is largely undeveloped with several wetland features scattered throughout. The riparian portions of the site are generally located along the creek tributaries and the southern project boundary. *Figure 4.4-4* shows the location of onsite seasonal wetlands, wetland depressions and non-wetland waters. As shown, these areas are contained within open space avoidance areas which also contain riparian habitat regulated by the CDFW. Proposed development mostly avoids impacting riparian because it avoids the designated open space areas that contain riparian habitat. The only exception is a proposed crossing of the main open space tributary where a bridge or culvert crossing would be constructed through riparian habitat to link the emergency staging area with the warehouse and vehicle trailer parking area. This proposed bridge crossing is expected to impact ±0.006 acre of riparian habitat, which is considered a potentially significant impact. This impact can be mitigated to less than significant with implementation of Mitigation Measure **BIO-6**.

The only other sensitive natural community identified as having the potential to occur within the Project Site based on the literature review was Oak Woodland (CDFW 2019a). However, based on the site visit, there is no oak woodland vegetation community on the Project Site.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

Less than significant with mitigation incorporated.

Figure 4.4-4. shows the location of proposed development in relation to onsite seasonal wetlands, wetland depressions and non-wetland waters. As shown, there are two locations on the Project Site where federally protected wetlands would be permanently impacted. The first includes ±0.014 acre of impact to a seasonal wetland depression due to construction of two proposed dormitory buildings in the southeast portion of the site. The second includes ±0.013 acre of impact to a seasonal wetland depression due to construction the parking lot in front of the multi-use building located in the central portion of the developed site.

In addition, the proposed crossing of the primary tributary to provide access to the emergency staging area in the north-central portion of the site may also result in permanent impacts to non-wetland Waters of the US (*Figure 4.4-4*). This potential impact is dependent on the final crossing design. Should a culvert crossing be employed, a worst-case permanent loss of ±0.003 acre of non-wetland waters could occur. If a bridge crossing that spans existing waters is employed, this impact could be significantly reduced or eliminated.

As discussed above, depending on final design, Project development is expected to result in the permanent loss of up to ±0.027 acre of seasonal wetland and 0.003 acre of non-wetland Waters of the US. This loss would be considered a potentially significant impact. This impact can be reduced to less than significant with implementation of Mitigation Measure **BIO-7**.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐

Less than significant impact.

Wildlife have potential to use the Project Site for movement, especially the riparian corridors. However, the site plan avoids and preserves the majority of riparian habitat within open space avoidance areas, which include buffers to protect sensitive resources. Therefore, Project implementation would not

constitute a significant loss of the available migration habitat in the area. Impacts would be less than significant, and no mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

Less than significant impact.

Although the City of Willits General Plan calls for the implementation of a tree ordinance by 1993, no such ordinance is currently included in the City of Willits Municipal Code (Willits Municipal Code 1979). There is also no current tree ordinance for the County of Mendocino. The Proposed Project would be located on state-owned property and would remain a state-owned and -operated facility. As such, the property would not be within jurisdiction of Mendocino County or the City of Willits. Therefore, even if they existed, there would be no conflict with local policies or ordinances protecting biological resources. Related impacts are considered less than significant. No mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

No impact.

The Project Site is not located within or adjacent to an HCP or NCCP. There would be no impact, and no mitigation is required.

4.4.4 Mitigation Measures

BIO-1: Conduct Pre-Construction Sensitive Plant Surveys. The following shall be conducted prior to initiation of Project construction:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species. If additional special-status plant species are found during surveys within the Project Site (aside from the two mapped populations of Northern Semaphore grass) and avoidance of the species is not possible, seed collection, transplantation, and/or other conservation approaches may be developed in

consultation with appropriate resource agencies to reduce impacts to special-status plant populations. If no additional special-status plants are found on the Project Site, no further measures pertaining to special-status plants are necessary.

BIO-2: Conduct Pre-Construction Sensitive Amphibians Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct pre-construction surveys for foothill yellow-legged frog and red-bellied newt where construction occurs near potential habitat. If either species is observed, consultation with CDFW is required prior to initiation of construction activities. No monofilament plastic mesh or line shall be used for erosion control where habitat for foothill yellow-legged frog is identified, to reduce the risk of entrapment during construction
- Silt fencing that will not be disturbed will be installed around suitable habitat for foothill yellow-legged frog and red-bellied newt, and fencing will be inspected daily to ensure no individuals are trapped along the fence.

BIO-3: Conduct Pre-Construction Northwestern pond turtle surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction Northwestern pond turtle survey within 24 hours prior to the initiation of construction activities, and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If Northwestern pond turtle is found, consultation with CDFW is required, as well as the development of a relocation plan for Northwestern pond turtles encountered during construction.

BIO-4: Conduct Pre-Construction Bird Nesting Surveys. The following shall be conducted prior to initiation of project construction:

- Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on and adjacent to the Project Site as described below within 14 days of commencement of construction during the nesting season (February 1 – August 31). Surveys should be conducted within 300 feet of the Project Site for nesting raptors, including sharp-shinned hawk, and 100 feet of the Project Site for nesting birds.

  A no-disturbance buffer around the nest shall be established if active nests are found. The buffer distance shall be established by a qualified biologist and is recommended to be 300 feet for raptors and 50 feet for non-raptor songbirds. If an active sharp-shinned hawk, yellow-breasted chat, or yellow warbler nest is found, the no-disturbance buffer shall be determined through consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. No further measures are necessary once the young are independent of the nest. Pre-construction nesting surveys are not required for construction activity outside the nesting season.

BIO-5: Conduct Pre-Construction Sensitive Mammal Surveys. Implement the following prior to initiation of project construction:

- Conduct a pre-construction American badger survey within 48 hours prior to construction activities. Consultation with CDFW is required prior to initiation of construction activities if American badgers are found.
- Conduct a pre-construction survey for Ringtail. Consultation with CDFW is required prior to initiation of construction activities if potential den sites are located that will not be avoided by construction. No further measures are necessary if no potential den sites are found during the survey.
- Prior to work within potentially suitable bat roosting habitat, a bat habitat assessment is recommended for all suitable roosting habitat (i.e., manmade structures and suitable trees, if present). If the assessment identifies moderate to highly suitable roosting habitat, a qualified biologist will conduct an evening bat emergence survey that may include acoustic monitoring to determine whether or not bats are present. If Townsend's big-eared bats are found, consultation with CDFW is required prior to initiation of construction activities. No further measures are necessary if no suitable roosting habitat is found, or if bats are not found during the emergence survey.

BIO-6: Compensate for the Loss of Riparian Communities. To compensate for the total loss of ±0.006 acre of riparian habitat, prior to construction the Department of General Services (DGS) shall obtain a CDFW Section 1602 Permit and either create riparian habitat or purchase credits at an approved mitigation bank to ensure no net loss of riparian habitat functions and values. If purchasing mitigation credits, a 3:1 ratio will be employed, which would require a total of approximately 0.018 acre of riparian habitat credits from an agency approved mitigation bank. This ratio and acreage will be confirmed during the review of future engineering drawings and may be modified during the CDFW Section 1602 permitting process (if actual increase or decrease), which will dictate the ultimate compensation. The DGS will provide written evidence to the resource agencies that compensation has been established through the purchase of mitigation credits. The amount to be paid will be the fee that is in effect at the time the fee is paid. Alternatively, DGS shall provide a Riparian Habitat Mitigation Plan for CDFW approval that identifies appropriate habitat creation, success criteria and monitoring and reporting requirements consistent with the Project's 1602 Permit conditions.

BIO-7: Compensate for the Permanent Loss of Wetlands/Waters of the United States/Waters of the State. To compensate for the permanent loss of ±0.027 acre of Waters of the U.S./State, DGS shall obtain Section 404 and 401 Permits from the USACE and RWQCB and either create replacement wetland habitat or purchase credits at an agency-approved mitigation bank to ensure no net loss of wetland functions and values. The wetland compensation ratio will be a minimum of 1:1 (one acre of wetland habitat credit for every one acre of impact) to ensure no net loss of wetland habitat functions and values. The DGS will also implement the conditions and requirements of state and federal permits that will be obtained for the Proposed Project. The actual mitigation ratio and associated credit acreage may be modified based on final design and USACE and RWQCB permitting which will dictate the ultimate compensation for permanent impacts to Waters of the U.S./ State. Alternatively, DGS shall provide a Wetland Habitat Mitigation Plan for USACE and RWQCB approval that identifies appropriate wetland creation, success

criteria and monitoring and reporting requirements consistent with the Project's Section 404 and 401 Permit conditions.

4.5 Cultural Resources

4.5.1 Environmental Setting

A confidential *Cultural Resources Inventory and Extended Phase 1 Report for the Ukiah CCC Training Center Relocation Project* was prepared by ECORP Consulting, Inc. (2019b) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project Site and to assess the sensitivity of the Project Area for undiscovered or buried cultural resources. This section of the Initial Study is based on the findings of the *Inventory and Extended Phase 1 Report* which includes discussion of the cultural context of the Project Area including regional and local prehistory, ethnography, and regional and Project Area histories. The confidential report can be made available to qualified individuals on a need to know basis by contacting the DGS Real Estate Services Division (RESD).

The ECORP inventory included a records search, literature review, and field survey with supplemental subsurface testing. The records search results indicated that five previous cultural resources studies have been conducted within the Project Area. As a result of those studies, no resources have previously been recorded within the Project Site; however, two pre-contact (prehistoric) resources (CA-MEN-3635 and CA-MEN-3568) have been identified and recorded on an adjacent parcel, and there is a high probability that these resources extend subsurface into the Project Site.

No cultural resources were newly identified on the property as a result of the initial field survey. Subsequently, ECORP conducted subsurface testing to determine if the previously recorded pre-contact resources recorded on the adjacent parcel extended into the Project Site. As a result of subsurface testing, no significant archaeological deposits associated with the pre-contact resources recorded during the Willits Bypass Project to the east extend into the Project Site.

Regional History

The first European to visit California was Spanish maritime explorer Juan Rodriguez Cabrillo in 1542. Cabrillo was sent north by the Viceroy of New Spain (Mexico) to look for the Northwest Passage. Cabrillo visited San Diego Bay, Catalina Island, San Pedro Bay, and the northern Channel Islands. The English adventurer Francis Drake visited the Miwok Native American group at Drake's Bay or Bodega Bay in 1579. Sebastian Vizcaíno explored the coast as far north as Monterey in 1602. He reported that Monterey was an excellent location for a port (Castillo 1978).

Colonization of California began with the Spanish Portolá land expedition. The expedition, led by Captain Gaspar de Portolá of the Spanish army and Father Junipero Serra, a Franciscan missionary, explored the California coast from San Diego to the Monterey Bay Area in 1769. As a result of this expedition, Spanish missions to convert the native population, presidios (forts), and pueblos (towns) were established. The Franciscan missionary friars established 21 missions in Alta California (the area north of Baja California) beginning with Mission San Diego de Alcalá in 1769 and ending with the Mission San Francisco Solano in Sonoma established in 1823. The purpose of the missions and presidios was to establish Spanish

economic, military, political, and religious control over the Alta California territory. No missions were established in the Central Valley. The nearest missions were in the vicinity of San Francisco Bay and included Mission San Francisco de Asis (Dolores) established in 1776 on the San Francisco Peninsula, Mission Santa Clara de Asis at the south end of San Francisco Bay in 1777, Mission San José in 1797, Mission San Rafael Arcángel, established as an *asistencia* in 1817 and a full mission in 1823, and Mission San Francisco Solano in Sonoma in 1823 (Castillo 1978; California Spanish Missions 2011). Presidios were established at San Francisco and Monterey. The Spanish took little interest in the area and did not establish any missions or settlements in the Central Valley.

After Mexico became independent from Spain in 1821, what is now California became the Mexican province of Alta California with its capital at Monterey. In 1827, American trapper Jedediah Smith traveled along the Sacramento River and into the San Joaquin Valley to meet other trappers of his company who were camped there, but no permanent settlements were established by the fur trappers (Thompson and West 1880).

The Mexican government closed the missions in the 1830s and former mission lands, as well as previously unoccupied areas, were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or "ranchos" (Robinson 1948). During the Mexican period there were small towns at San Francisco (then known as Yerba Buena) and Monterey. The rancho owners lived in one of the towns or in an adobe house on the rancho. The Mexican Period includes the years 1821 to 1848.

John Sutter, a European immigrant, built a fort at the confluence of the Sacramento and American rivers in 1839 and petitioned the Mexican governor of Alta California for a land grant, which he received in 1841. Sutter built a flour mill and grew wheat near the fort (Bidwell 1971). Gold was discovered in the flume of Sutter's lumber mill at Coloma on the South Fork of the American River in January 1848 (Marshall 1971). The discovery of gold initiated the 1849 California Gold Rush, which brought thousands of miners and settlers to the Sierra foothills east and southeast of Sacramento.

The American Period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries, which were surveyed by the U.S. Surveyor General's office. Land outside the land grants became federal public land which was surveyed into sections, quarter-sections, and quarter-quarter sections. The federal public land could be purchased at a low fixed price per acre or could be obtained through homesteading (after 1862) (Robinson 1948).

Project Area History

The town of Willits originated from a store that was opened in 1859 by Kirk Brier. Soon after, a blacksmith shop and a saloon opened in the town. Hiram Willits came to Mendocino County in 1857 and purchased the store in town. The town of Willits was incorporated in 1888 and was named after Hiram Willits (Kyle 2002).

The San Francisco & North Pacific Railroad reached Ukiah from San Francisco in 1889. This railway was purchased by the Northwestern Pacific Railroad in 1907 and the rail line was extended to Eureka by 1915 (Robertson 1998). The railroad opened the area's agricultural and logging activities to the Bay Area markets.

4.5.2 Cultural Resources (V) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒

No Impact.

Records, Map and Aerial Photo Search Results

ECORP conducted a records search for historical resources using various sources.

The *Office of Historic Preservation's Directory of Properties, Historic Property Data File* (dated April 5, 2012) did not include any resources within the Project Area (Office of Historic Preservation [OHP] 2012).

The National Register Information System (National Park Service [NPS] 2019) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register properties are located approximately one mile northwest of the property within the center of Willits, which include several architectural examples including the Willits' Carnegie Library and Willits Depot.

Resources listed as *California Historical Landmarks* (OHP 1996) and by the OHP (OHP 2019) were reviewed on April 11, 2019. The nearest listed landmarks, #926 Sun House and #980 Ukiah Vichy Springs Resort, are both located approximately 20 miles southeast of the Project Area in Ukiah.

Historic Spots in California (Kyle 2002) explains that Willits began as a single general store that opened in 1856. Kirk Brier opened the store and soon a blacksmith, bar, and saloon were opened. A year later, Hiram Willits purchased the store and in 1888 the town was incorporated and named after him.

Historic General Land Office land patent records from the Bureau of Land Management's (BLM's) patent information database (BLM 2019) indicate that Thomas Sawyer and Wesley Underwood received a patent for 160 acres of land including the Project Site in the eastern half of the southeastern quarter of Section 19, on March 5, 1863.

The Caltrans Bridge Local and State Inventories (Caltrans 2018, 2019) did not list any historic bridges in the Project Area.

The *Handbook of North American Indians* (McLendon and Oswalt 1978) lists the nearest Native American village of the Northern Pomo as *na·bó,* which is located approximately 1.5 miles south of Willits.

A review of historical aerial photographs and maps of the Project Area provided information on the past land uses of the property and potential for buried archaeological sites. Based on this information, the property has been undeveloped and vacant at least since 1859 and located on the outskirts of the town of Willits. The Northwestern Pacific Railroad was constructed in 1902 adjacent to the Project Area. The Highway 101 bypass was constructed along the eastern boundary of the Project Area in 2014.

Field Survey Results

An intensive pedestrian survey designed to identify historic-period and pre-contact sites and artifacts within the Project Site was conducted by ECORP archaeologist Shane Meston on April 23, 2019. The Project Area had approximately 5 to 10 percent visibility of the ground surface, which was obscured by grasses and shrubs. Standing water was observed in the eastern portion of the Project Site.

The Willits Bypass was constructed in 2014, and the roadway, which runs along the eastern side of the Project Site, is elevated above the land in the Project Area. There were two areas of mixed oak and eucalyptus trees that follow the natural drainages on the Project Site. These natural drainages are tributaries to Haehl and Davis creeks. In addition, there were areas near the eastern Project boundary that were submerged in up to four inches of standing water and were visually inspected for resources. There was a large amount of modern trash scattered along the western Project boundary parallel to the railroad tracks as well as evidence of transient habitation at the time of the survey. There were no indications that any features associated with the historic-period railroad extended into the Project Site.

Subsurface Testing Results

ECORP excavated 24 shovel test pits (STPs) along the eastern boundary of the Project Area to assess whether subsurface deposits associated with sites CA-MEN-3635 (P-23-5462) and/or CA-MEN-3568 (P-23-5314) extend into the Project Site.

STPs were excavated near the mapped location of CA-MEN-3568 (previously recorded midden deposit) and were augured to depths of 160 centimeters below surface. Of the 24 STPs, only two contained cultural material. The soil within the STPs consisted of a dry sandy loam and no midden was observed.

Given that 92 percent of the STPs and 85 percent of the volume excavated were negative and only three lithics were found in two STPs that were not near each other, no significant archaeological deposits associated with CA-MEN-3635 or CA-MEN-3568 extend into the Project Site. However, two STPs returned positive identifications for archaeological materials. Recovered materials included one chert flake, one chert shatter and a chert biface fragment. No midden was encountered, and these materials were observed within otherwise culturally-sterile soil that consisted of a dry sandy loam. All recovered materials were redeposited in the ground at the respective STP locations prior to backfilling.

Evaluation/Conclusions

No cultural resources were identified on the Project Site as a result of the records search and field survey. The records search revealed that two pre-contact archaeological resources were recorded adjacent to Project Site during the Willits Bypass Project. Subsequent ECORP surface and subsurface testing along the

eastern Project Site boundary showed that no significant archaeological deposits associated with the pre-contact resources recorded during the Willits Bypass Project extend into the Project Site.

The presence of the newly identified materials is likely the result of decades of prior ground disturbance on the Project parcel and in the surrounding landscape. Massive earthwork associated with construction of the Willits Bypass and the adjacent developments has undoubtedly impacted site CA-MEN-3635 and CA-MEN-3568 in the past. Grading and earthwork on those adjacent projects likely pushed artifacts into the current Project Area. These materials are no longer in their primary (original context), and therefore, their ability to provide information important to prehistory is limited. These materials are not an extension of historical resource CA-MEN-3635; rather, these isolated cultural materials lack integrity with respect to CRHR eligibility criteria under CEQA [CCR Title 14, § 4852(c)]. Further, because the STP locations were specifically selected to coincide with planned excavation for the Proposed Project, the results of the testing program reflect the potential impact (or lack thereof) to the eligible site. Based on the current evidence that sites CA-MEN-3635 or CA-MEN-3568 do not extend into the current Project Area, no significant impact will occur to CA-MEN-3635 or CA-MEN- 3568 as a result of the Proposed Project.

Currently, no known Historic Properties under Section 106 of the National Historic Preservation Act or Historical Resources as defined by CEQA will be affected by the Proposed Project. There would be no impact.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

As discussed above, no cultural resources were identified on the property as a result of the records search and field survey. Furthermore, subsurface testing showed that no significant archaeological deposits associated with the pre-contact resources recorded during the Willits Bypass Project extend into the Project Site. However, as a result of subsurface testing, reflections of an adjacent pre-contact archaeological site were observed within the Project Site. The presence of archaeological materials in the Project Area and the medium density of substantial archaeological deposits in the vicinity suggests that there is a potential for additional archaeological materials to be unearthed during construction. This is considered a potentially significant impact. Implementation of Mitigation Measure **CUL-1** would reduce this potential impact to less than significant.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Less than significant with mitigation incorporated.

No formal cemeteries are located within or near the Project Site and no human remains have been reported in the project vicinity. Therefore, the Proposed Project has low potential to disturb human remains. The potential exists however for previously unknown remains to be unearthed during construction. The impact on such resources would be less than significant with the implementation of Mitigation Measure **CUL-1**.

4.5.3 Mitigation Measures

CUL-1: Implement Measures to Protect Unanticipated Cultural Resources Discoveries.

Awareness Training and Monitoring.

A qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology shall provide pre-construction cultural resources awareness training to all construction personnel. Training will include appropriate protocol following the unanticipated discovery of any archaeological deposits during construction. A qualified professional archaeologist shall be retained to monitor all ground-disturbing activity associated with the Project.

Stop Work for Unanticipated Discoveries and Evaluate the Find

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 50-foot radius of the discovery. The qualified archaeologist shall be called upon to evaluate the significance of the find and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify RESD. RESD shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be eligible for inclusion in the CRHR. Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the site either: 1) is not eligible for or CRHR; or 2) that the treatment measures have been completed to its satisfaction.
- If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (Assembly Bill [AB] 2641). The archaeologist shall notify the Mendocino County Medical Examiner (as per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, the Medical Examiner will notify the NAHC, who then will

designate a Native American Most Likely Descendant (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If RESD does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, RESD must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate information center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until RESD, through consultation as appropriate, determines that the treatment measures have been completed to its satisfaction.

4.6 Energy

4.6.1 Environmental Setting

Energy consumption is analyzed in this IS due to the potential direct and indirect environmental impacts associated with the Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) during both the construction and long-term operational phases.

Electricity/Natural Gas Services

The PG&E provides electricity and natural gas to the Project Area. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. PG&E provides natural gas and electricity to most of the northern 2/3 of California, from Bakersfield and Barstow to near the Oregon, Nevada and Arizona State Line. It provides 5.2 million people with electricity and natural gas across 70,000 square miles.

Energy Consumption

Electricity use is measured in kilowatt-hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption in Mendocino County from 2015 to 2018 is shown in *Table 4.6-1*. As indicated, the demand has remained relatively constant since 2015.

Table 4.6-1. Electricity Consumption in Mendocino County 2015-2018

Year	Electricity Consumption (kilowatt hours)
2018	566,488,545
2017	588,129,549
2016	580,503,174
2015	567,921,952

Source: California Energy Consumption Data Management System 2019

The natural gas consumption in Mendocino County from 2015 to 2018 is shown in *Table 4.6-2*. As indicated, the demand has increased since 2015.

Table 4.6-2. Natural Gas Consumption in Mendocino County 2015-2018

Year	Natural Gas Consumption (therms)
2018	10,264,000
2017	10,560,536
2016	9,585,611
2015	8,973,343

Source: California Energy Consumption Data Management System 2019

Automotive fuel consumption in Mendocino County from 2015 to 2018 is shown in *Table 4.6-3*. As shown, fuel consumption has increased since 2015.

Table 4.6-3. Automotive Fuel Consumption in Mendocino County 2015-2018

Year	Fuel Consumption (gallons)
2018	76,966,216
2017	78,668,466
2016	78,377,916
2015	75,972,810

Source: California Air Resources Board 2017

4.6.2 Regulatory Setting

State

California Renewable Energy Standards

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2006, California's 20 percent by 2010 RPS goal was codified under Senate Bill (SB) 107. Under the provisions of SB 107 (signed into law in 2006), investor-owned utilities were required to generate 20 percent of their retail electricity using qualified renewable energy technologies by the end of 2010. In 2008, EO S-14-08 was signed into law and requires that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. As described previously, PG&E's electricity mix in 2015 was 30 percent renewable. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 for retail sellers and publicly owned utilities, requires them to procure 60 percent of the state's electricity from renewable sources by 2030.

California Building Codes

At the state level, the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years;

the 2013 standards became effective July 1, 2014. The 2016 Title 24 updates went into effect on January 1, 2017. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.

In January 2010, the State of California adopted the California Green Building Standards Code (CalGreen) that establishes mandatory green building standards for all buildings in California. The code was subsequently updated in 2013. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality.

4.6.3 Energy (VI) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Less than significant impact.

The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, natural gas, the equipment fuel necessary for Project construction, and the automotive fuel consumed during operations. It should be noted that the Project represents relocation of an existing-use within the County and would not result in substantial changes in operational energy consumption. Construction energy use would be a new source over existing conditions. This analysis assumes the Project is a new source of operational energy demand which is a conservative approach to this analysis. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of electricity and natural gas estimated to be consumed by the Project is quantified and compared to that consumed in Mendocino County. Similarly, the amount of fuel necessary for Project construction and operations is calculated and compared to that consumed in Mendocino County.

The analysis of electricity and natural gas usage is based on California Emissions Estimator Model (CalEEMod) modeling conducted by ECORP (see *Appendix A)*, which quantifies energy use for Project operations. The amount of operational automotive fuel use was estimated using the CARB's EMFAC2017 computer program, which provides projections for typical daily fuel usage in Mendocino County. The amount of total construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Energy consumption associated with the Proposed Project is summarized in *Table 4.6-4*.

Table 4.6-4. Proposed Project Energy and Fuel Consumption

Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Electricity Consumption[1]	**609,144 kilowatt-hours**	0.11%
Natural Gas[1]	**20,436 therms**	0.19%
Automotive Fuel Consumption		
Project Construction2	13,764 gallons	
Project Operations3	13,561 gallons	
Automotive Fuel Consumption Total	**27,325 gallons**	0.04%

Source: [1]Electricity consumption calculated by ECORP Consulting using CalEEMod 2016.3.2; [2]Climate Registry 2016; [3]EMFAC2014 (CARB 2017)

Notes: The Project increases in electricity and natural gas consumption are compared with all buildings in Mendocino County in 2018, the latest data available. The Project increases in automotive fuel consumption are compared with the countywide fuel consumption in 2018.

As shown in *Table 4.6-4*, the increase in electricity usage as a result of the Project would constitute a negligible increase of 0.11 percent in the typical annual electricity consumption and 0.19 percent in the typical annual natural gas consumption attributable to buildings Mendocino County. The Project would adhere to all federal, state, and local requirements for energy efficiency, including the Title 24 standards. The Project would be required to comply with Title 24 building energy efficiency standards, which establish minimum efficiency standards related to various building features including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Additionally, as previously described all Project buildings would be designed to meet the U.S. Green Building Council's LEED Silver rating requirements in order to attain the highest possible energy efficiency and will include zero net energy (ZNE) pursuant to the Governor's EO B-18-12.

As further indicated in *Table 4.6-4*, the Project's gasoline fuel consumption during the one-time construction period is estimated to be 13,764 gallons of fuel. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the State. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would conserve the use of their supplies to minimize costs to their profits. Additionally, construction equipment fleet turnover and increasingly stringent State and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

As indicated in *Table 4.6-4*, Project operation is estimated to consume approximately 13,561 gallons of automotive fuel per year, which even if considered in combination with the estimated use of fuel during the one-time construction period, would increase the annual countywide automotive fuel consumption by 0.04 percent (< 1 percent). The amount of operational fuel use was estimated using CARB's EMFAC2017 computer program, which provides projections for typical daily fuel usage in Mendocino County. This

analysis conservatively assumes that all of the automobile trips projected to arrive at the Project during operations would be new to Mendocino County. The Project would not result in any unusual characteristics that would result in excessive long-term operational automotive fuel consumption. Fuel consumption associated with vehicle trips generated by the Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

For these reasons, this impact would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Less than significant impact

The Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources. As just stated, all Project buildings would be designed to meet the U.S. Green Building Council's LEED Silver rating requirements in order to attain the highest possible energy efficiency and will include ZNE pursuant to the Governor's EO B-18-12. Additionally, a photovoltaic array to generate supplemental electrical power for the Center would be located north of the emergency staging area. The 488 kW (STC DC) array would be comprised of 35,000 sf of ground mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually. The Project would not conflict or obstruct any local or state plans for renewable energy or energy efficiency.

For these reasons, this impact would be less than significant. No mitigation is required.

4.6.4 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.7 Geology and Soils

4.7.1 Environmental Setting

Geomorphic Setting

SHN Engineers and Geologists, Inc. conducted a *Report of Limited Geotechnical Investigation* for the Proposed Project (SHN 2018). The investigation included reviewing all available geologic and subsurface information, a field investigation of the site, drilling geotechnical machine borings, performing laboratory tests on selected soil samples, and providing geotechnical recommendations to aid Project planning, design and construction. The following geology and soils analysis are based on the SHN geotechnical report. The SHN Report is available from DGS upon request.

The Project Site is located on a Holocene age floodplain at the southern end of the Little Lake valley floor. Topography of the site is nearly level with little to no discernible grade. Drainage associated with the

tributary channels crossing the site is to the north. A 15- to 20-foot-high-pressure ridge located long the Maacama fault to the southwest forms the only topographic relief in proximity to the site. Haehl Creek drains the upland areas south of the valley and flows northward across the Little Lake valley floor where it joins Baechtel Creek north of the site. Incision of the Haehl Creek channel and the formation of steep stream banks expose a stratigraphic section consisting of a 15- to 25-foot-thick sequence of young, unconsolidated alluvium overlying fine-grained lacustrine deposits associated with an ancient lake that previously occupied Little Lake valley**.** Radiometric dating conducted during previous fault studies in proximity to the site indicate the surficial alluvium to be of Holocene age and the underlying lacustrine deposits to be of latest Pleistocene in age. Stratigraphy described in the Haehl Creek channel is generally consistent with that observed in test borings done by SHN in their *Report of Limited Geotechnical Investigation* and provides a basis for assessing the age and liquefaction potential of the sediments underlying the Project Site and proposed development.

Soils

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey database, as shown in *Figure 4.4-1* (*Section 4.4 Biological Resources*), the Project Site is composed of the two soil units listed below. The Web Soil Survey also identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the project soils. According to this survey, the soil is somewhat poorly drained to very well-drained and is subject to moderate to high levels of runoff.

- Gielow sandy loam, 0 to 5 percent slopes (81.6 percent of survey area)
    - Somewhat poorly drained
    - Flooding frequency class: None
    - Hydrologic Soil Group: B/D
- Xerochrepts-Haploxeraifs-Argixerolis complex, 30 to 50 percent slopes
    - Well-drained
    - Flooding frequency class: None
    - Hydrologic Soil Group: B

Hydrologic Soil Groups

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation. Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet. Group B: Soils having a moderate infiltration rate when thoroughly wet. Group C: Soils having a slow infiltration rate when thoroughly wet. Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.

Regional Seismicity and Fault Zones

The California State Mining and Geology Board defines an "active fault" as one that has had subsurface displacement within the past 11,000 years (Holocene). "Potentially active faults" are defined as those that have ruptured between 11,000 and 1.6 million years before the present (Quaternary). Faults are generally considered inactive if there is no evidence of displacement during the Quaternary period.

The Project Area is in the geologic province of the North Coast Range, geologically made up of the Franciscan Formation. The Franciscan Formation is a late Mesozoic heterogeneous terrane comprised of serpentine, sandstone, and other sedimentary rocks. The Project Site is situated near the eastern margin of the northern San Andreas fault zone and in very close proximity to the Maacama fault. Historical seismicity and paleoseismic studies in northern California suggest multiple seismic sources are capable of generating damaging earthquakes with the potential to produce strong earthquake ground shaking at the Project Site. The sources include the following:

The Maacama Fault

A major northwest-trending right-lateral (dextral) strike-slip fault extends from near Laytonville in Mendocino County to near Mark West Creek in Sonoma County. It has been interpreted as the right-stepping northern extension of the Rodgers Creek fault. Based on interpreted Holocene age surface traces, the California Geological Survey (formerly Division of Mines and Geology) established it as an Earthquake Fault Zone in accordance with the criteria set forth in the Alquist-Priolo Act. A seismic fault creep measured near Ukiah and Willits records about 5.6 millimeters per year (mm/year) and 7.6 mm/year, respectively, of dextral slip (Galehouse 1995).

The Bartlett Springs Fault

This fault system is a major northwest-trending zone comprised of discontinuous, steeply dipping dextral strike-slip faults associated with the San Andreas fault system. The Bartlett Springs fault system can be mapped for at least 120 km from the southern side of Round Valley, southeast to near Clear Lake. Traces of the Bartlett Springs fault zone locally are delineated by geomorphic evidence of latest Pleistocene and Holocene strike-slip displacement, especially in the vicinity of Lake Pillsbury. Taylor and Swan (1986) reported the most recent fault rupture event occurred from 300 to 1,000 years ago. The Bartlett Springs fault is estimated by the U.S. Geological Survey (USGS) to be capable of generating a Magnitude (M) 7.1 event.

The Northern San Andreas Fault

Northern San Andreas fault events are rare but can be very large. The northern San Andreas fault is a right-lateral strike-slip fault that represents the plate boundary between the Pacific and North American plates. The fault traverses Point Delgada at Shelter Cove and terminates at the Mendocino triple junction. The 1906 San Francisco earthquake (M7.9), which ruptured the ground surface from the town of Olema in Marin County to Shelter Cove in southern Humboldt County, caused the most significant historic damage in the North Coast region.

Seismicity

The site is located approximately 1,000 feet east of the Maacama fault, which is identified by the State of California as an active fault. The subject parcel, however, is not located within the Earthquake Fault Hazards Zone associated with the Maacama fault (Bryant and Hart 2007). No known active fault crosses the Project Site based on the official State of California Special Studies Zones fault maps. The SHM geotechnical report found no field evidence such as offset drainages, sag ponds, pressure ridges, or youthful appearing fault scarps to suggest that a previously unrecognized active fault may be present. Therefore, the risk of surface fault rupture at the Project Site is considered remote.

Liquefaction

Liquefaction refers to the temporary loss of soil shear strength that may occur suddenly during strong ground shaking. This phenomenon can occur where there are saturated, loose, granular (sandy) deposits subjected to long-duration seismic shaking. Liquefaction-related phenomena can include localized ground settlement, ground cracking and expulsion of water and sand (sand boils), the partial or complete loss of bearing and confining forces used to support loads, amplification of seismic shaking, and lateral spreading.

Qualitatively, the requirements for liquefaction to occur within the upper soil profile at the site are present. Some of the loose sand and silty sand soils that were encountered during SHN's geotechnical investigation indicate a high susceptibility to liquefaction. Geologic materials most susceptible to liquefaction are geologically recent (i.e., late Holocene age) sand- and silt-rich deposits, located adjacent to streams and rivers such as those encountered at the site. Susceptibility to liquefaction generally decreases with increasing geologic age. However, the near-surface soils at the subject site are Holocene age alluvial material, and are, therefore, considered susceptible under these criteria.

SHN's geotechnical analysis indicates that the near-surface granular soils have a high liquefaction potential (SHN 2018).

Coseismic Compaction

Coseismic compaction is soil densification due to seismically-induced ground settlement, and can occur during dynamic loading of poorly to moderately consolidated cohesionless soil above or below the groundwater level such as those present at the site. Shaking or vibration during an earthquake can cause these granular soils to become denser, resulting in settlement of the ground surface.

Subsurface exploration conducted by SHN indicates that there are numerous zones of loose to very loose sands above and below the groundwater surface. These zones have the potential for some seismically-induced densification and settlement. Therefore, the likelihood of damage to improvements at the site due to seismically-induced ground settlement is high.

Radon

Radon is a colorless, odorless, tasteless, and radioactive gas that is produced as a natural decay product of uranium. Because of its radioactivity, studies have shown that at elevated concentrations there is a link between radon and lung cancer. Persons living in a building with elevated radon concentrations may have

an increased risk of contracting lung cancer over a period of years. The Project Site is located in an area of low radon potential with levels of radon typically below the USEPA radon threshold limit of 4.0 picocuries per liter of air (pCi/L). Potentially high radon levels are typically associated with geologic uplift, the uranium/lignite belt, or granite or shale outcrops. Mendocino County is an USEPA Radon Zone 3, a county with predicted average indoor radon screening levels less than 2 pCi/L. The Project Site is underlain by the Franciscan geologic formation; therefore, radon is not anticipated to be a geologic hazard.

Naturally Occurring Asbestos

The Project Site is located within the Franciscan Formation. Rocks of the Franciscan Formation have the potential to contain units or fragments of serpentinite ultramafic rocks, which have locally been known to contain naturally occurring asbestos (NOA). The MCAQMD has mapped the area containing the Project Site to be located within a region potentially containing NOA. No outcrops of serpentinite ultramafic rocks were observed at the Project Site during the site reconnaissance conducted for the geotechnical investigation.

Paleontological Resources

A paleontology records search was conducted for the project by the Natural History Museum of Los Angeles County, Vertebrate Paleontology Section (Natural History Museum of Los Angeles County. October 2019). Following summarizes the records search results and recommendations.

According to geologic mapping, surface deposits in the Project Area consist of younger Quaternary Alluvium, derived primarily as alluvial fan deposits from the elevated terrain to the south via Haehl Creek that currently flows adjacent the Project Site. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but at relatively shallow depth they may contain significant fossil vertebrate remains in older deposits.

The closest known vertebrate fossil locality from Quaternary deposits is LACM (CIT) 197, situated west-northwest of the Proposed Project Area in Strong's Creek near Newburg that drains into the Eel River near Fortuna, that produced a fossil specimen of Columbian mammoth, Mammuthus columbi. The record search results conducted for the Proposed Project indicate no fossil vertebrate are known to exist within the Project Site, however sedimentary deposits similar to those that may occur at this depth in the Project Area are quite distance from the Project Site.

4.7.2 Regulatory Setting

Federal and state laws and regulations pertaining to geology and soils and relevant to the Project are presented below.

Building Codes

Alquist-Priolo Earthquake Fault Zoning Act (Pub. Resources Code, §§ 2621-2630).

This Act requires that "sufficiently active" and "well-defined" earthquake fault zones be delineated by the State Geologist and prohibits locating structures for human occupancy on active and potentially active surface faults. (Note that since only those potentially active faults that have a relatively high potential for

ground rupture are identified as fault zones, not all potentially active faults are zoned under the Alquist-Priolo Earthquake Fault Zone, as designated by the State of California.)

California Building Code (CCR, Title 23)

The CBC provides a minimum standard for building design, which is based on the Uniform Building Code, but is modified for conditions unique to California. The CBC is selectively adopted by local jurisdictions, based on local conditions. The CBC contains requirements pertaining to multiple activities, including: excavation, site demolition, foundations and retaining walls, grading activities including drainage and erosion control, and construction of pipelines alongside existing structures.

4.7.3 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐

Less than significant.

i) The Project Site is located approximately 1,000 feet east of the Maacama fault, which is identified by the State of California as an active fault. The subject parcel, however, is not located within the Earthquake Fault Hazards Zone associated with the Maacama fault (Bryant and Hart 2007). No known active fault crosses the Project Site based on the official State of California Special Studies Zones fault maps. SHN found no field evidence during their site investigation such as offset drainages, sag ponds, pressure ridges, or youthful appearing fault scarps to suggest that a previously unrecognized active fault may be present. Therefore, the risk of surface fault rupture at the Project Site is considered less than significant. No mitigation required.

ii) The Project Site is not located within the Earthquake Fault Hazards Zone associated with the nearby Maacama fault nor any other fault. No known active fault crosses the Project Site based on the official

State of California Special Studies Zones fault maps. Adverse effects via strong seismic ground shaking is considered less than significant. No mitigation required.

iii) The geotechnical investigation found that the near-surface granular soils have a high liquefaction potential. The potential for damaging settlements to propagate to the ground surface is also considered high due to the poorly consolidated nature of the saturated near-surface granular sediments. As a result, there is a high possibility for structural damage. However, construction will occur consistent with the Project's geotechnical report recommendations which address these conditions and therefore impacts are considered less than significant. No mitigation required.

iv) The Project Site is located on mostly flat land and is not subject to landslides. This impact is less than significant, and no mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Less than significant.

The Project would implement a SWPPP that identifies BMPs to control erosion and topsoil loss during construction (see *Section 4.10 Hydrology and Water Quality*). Because the Project would implement a SWPPP, soil erosion impacts would be reduced to a less than significant impact. No additional mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Less than significant.

The current soil and ground conditions could be susceptible to liquefaction and coseismic compaction. However, construction would be consistent with the Project's geotechnical report, which includes recommendations such as over excavation and replacement with compacted engineered fill as part of the site preparation and foundation construction. The geotechnical recommendations are designed to address and mitigate site specific soil conditions. Therefore, related impacts would be less than significant, and no mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Less than significant.

The potential for damaging settlements to propagate to the ground surface is considered high due to the poorly consolidated nature of the saturated near-surface granular sediments. The Project geotechnical report finds the possibility for structural damage to be correspondingly high. However, as discussed above, Project construction will follow geotechnical report recommendations that address these conditions. Related impacts are considered less than significant. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

No impact.

Project includes connection to the City of Willits sewer system. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Less than significant with mitigation incorporated.

Shallow excavations in the soil and Quaternary alluvial deposits exposed throughout the Proposed Project Area may not uncover significant fossil vertebrate remains. Deeper excavations that extend down into older sedimentary deposits, however, have the potential to encounter significant vertebrate fossil remains. The Project Site is therefore considered sensitive for paleontological resources. Because unknown paleontological resources could be discovered during excavation, this impact is considered potentially significant. Implementation of Mitigation Measure **GEO-1** would reduce this impact to a less-than-significant level.

4.7.4 Mitigation Measures

GEO-1: Discovery of Unknown Paleontological Resources. If any paleontological resources (i.e., fossils) are found during Project construction, construction shall be halted immediately in the subject area and the area shall be isolated using orange or yellow fencing until RESD is notified and the area is cleared for future work. A qualified paleontologist shall be retained to evaluate the find and recommend appropriate treatment of the inadvertently discovered paleontological resources. In addition, in the event of an inadvertent find, sediment samples should be collected and processed to determine the small fossil potential on the Project Site. If RESD resumes work in a location where paleontological remains have been discovered and cleared, RESD will have a paleontologist onsite to observe any continuing excavation to confirm that no additional paleontological resources are in the area. Any fossil materials uncovered during mitigation activities should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps more than 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG emissions

are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

4.8.2 Regulatory Setting

Executive Order S-3-05

EO S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

While dated, this EO remains relevant because a more recent California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056, examined whether it should be viewed as having the equivalent force of a legislative mandate for specific emissions reductions. While the California Supreme Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the EO does not specify any plan or implementation measures to achieve its goal, the decision also recognized that the goal of a 40 percent reduction in 1990 GHG levels by 2030 is "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed AB 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. CARB has identified a GHG reduction target of 15 percent from current levels for local governments and notes that successful implementation relies on local governments' land use planning and urban growth decisions.

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which was re-approved by CARB on August 24, 2011, that outlines measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels or about 15 percent from today's levels. The Scoping Plan recommends measures for further study and possible state implementation, such as new fuel regulations. It estimates that a reduction of 174 million metric tons of CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, and forestry sectors and other sources could be achieved should the state implement all of the measures in the Scoping Plan.

The Scoping Plan is required by AB 32 to be updated at least every five years. The first update to the AB 32 Scoping Plan was approved on May 22, 2014 by CARB. The 2017 Scoping Plan Update was adopted on December 14, 2017. The Scoping Plan Update addresses the 2030 target established by SB 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include: increasing the use of renewable energy in the state, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Executive Order B-30-15

On April 20, 2015 Governor Edmund (Jerry) Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2˚C, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which

contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the state's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California.

In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable resources by 2030. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewal Portfolio Standards.

4.8.3 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Less than Significant.

GHG-related impacts were assessed in accordance with methodologies recommended by CARB and the MCAQMD. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction-generated GHG emissions were primarily calculated using CalEEMod model defaults for Mendocino County; however, the length of construction is based on estimates provided by the Project applicant. As previously described, construction of the Proposed Project is anticipated to start in 2021 and is estimated to last approximately 24 months. Operational GHG emissions were based on the Project Site plans and the estimated traffic trip generation rates from Fehr & Peers (2019).

The MCAQMD's CEQA Guidelines include guidance on assessing greenhouse gas and climate change impacts as required under CEQA § 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to attribute an appropriate share of

GHG emissions reductions necessary to reach AB 32 goals for new land use development projects in the air district's jurisdiction that are evaluated pursuant to CEQA. The Project is assessed against the MCAQMD numeric threshold of significance of 1,100 metric tons of CO_2e per year. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the statewide GHG emissions reduction goals for the year 2020 promulgated under AB 32 and the post-2020 reduction goals promulgated under SB 32. Thus, both cumulatively and individually, projects that generate less than 1,100 metric tons CO_2e per year have a negligible contribution to overall emissions.

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Site, and off-road construction equipment (e.g., dozers, loaders, excavators). *Table 4.8-1* illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

Table 4.8-1. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/ Year)
Construction in 2020	127
Construction in 2021	628
Construction in 2022	623
Total	**1,378**

Source: CalEEMod version 2016.3.2. Refer to *Appendix A, Attachment B* for Model Data Outputs.

As shown in *Table 4.8-1*, Project construction would result in the generation of approximately 1,378 metric tons of CO_2e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. The amortized construction emissions are added to the annual average operational emissions.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in *Table 4.8-2* and compared to MCAQMD's numeric bright-line threshold of 1,100 metric tons of CO2e annually.

Table 4.8-2. Operational-Related Greenhouse Gas Emissions Attributable to Project Buildout

Emissions Source	CO_2e (Metric Tons/Year)
Proposed Project Buildout	
Total Construction Emissions (amortized over the lifespan of the Project)	46
Area Source Emissions	0
Energy Source Emissions	190
Mobile Source Emissions	155
Solid Waste Hauling & Decomposition Emissions	121
Water & Wastewater Conveyance Emissions	22
Total Emissions	**534**
MCAQMD Bright-line Screening Threshold	*1,100*
Exceeds MCAQMD Screening Threshold?	**No**

Source: CalEEMod version 2016.3.2. Refer to *Appendix A, Attachment B* for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate identified by Fehr & Peers 2019

As shown in *Table 4.8-2*, operational-generated emissions would not exceed the MCAQMD's numeric bright-line threshold of 1,100 metric tons of CO_2e annually. As previously stated, the numeric 1,100 metric tons of CO_2e threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the statewide GHG emissions reduction goals for the year 2020 promulgated under AB 32 and the post-2020 reduction goals promulgated under SB 32. Thus, both cumulatively and individually, projects that generate less than 1,100 metric tons CO_2e per year have a negligible contribution to overall emissions. Therefore, the Project will have a less than significant impact on the environment due to GHG emissions since it would not exceed this threshold of significance.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Less than Significant.

The Project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The Proposed Project is subject to compliance with AB 32 and SB 32. As discussed previously, the Proposed Project-generated GHG emissions would not surpass the MCAQMD GHG significance thresholds, which were prepared with the purpose of complying with these requirements. Additionally, the Center is intended to be designed to ZNE per the Governor's EO B-18-12 and achieve at minimum a LEED Silver certification, and thus a heightened level of energy efficiency for all Project buildings which equates to the generation of less GHG emissions.

Also, a photovoltaic array to generate supplemental electrical power for the Center would be located north of the emergency staging area. The 488 kW (STC DC) array would be comprised of 35,000 sf of

ground-mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually. Therefore, the Proposed Project would contribute to the continued reduction of GHG emissions in the interconnected California and western U.S. electricity systems, as the energy produced by the Project would displace GHG emissions that would otherwise be produced by existing 'business-as-usual' power generation resources (including natural gas, coal, arid renewable combustion resources). The Project would generate a maximum of 488 kW of electricity at any one time. *Table 4.8-3* shows the emissions that would potentially be displaced by the Proposed Project. Note that this estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the Project's operations, and it similarly does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources.

Table 4.8-3. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_2O	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural Gas-Source Emissions	100	0	0	100
Displaced Coal-Source Emissions	22	0	0	22
Total	**122**	**0**	**0**	**122**
Emissions Displaced over 30 Years (metric tons)				
Displaced Natural Gas-Source Emissions	3,000	0	0	3,000
Displaced Coal-Source Emissions	660	0	0	660
Total	**3,660**	**0**	**0**	**3,660**

Source: Displaced emissions calculated by ECORP using USEPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015. (See *Appendix A, Attachment B*.

Notes: In order to provide a conservative analysis, the Proposed Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually). A heat rate of 9,313 British thermal units (Btu) per kWh is assumed based on an average of thermal power plants supplying energy to California. The heat content of coal is assumed at 24 million Btu per ton of coal burned. 702,000 annual kWh x 9,313 heat rate = 6,536,748,135 Btu displaced from fossil fuel production. Energy consumption in California is predominately derived from natural gas (34.91%). Coal constitutes 3.30% of all energy-based energy consumption in California. Renewable sources (not including hydroelectric generators) account for 31.36% and nuclear power accounts for 9.05%. 9.25% of the state's energy comes from unspecified nonrenewable sources and this percentage is added to the natural gas total for the purpose of this analysis. Therefore, 2,886 million of the displaced Btu is displaced natural gas consumption and 215 million of the displaced Btu is displaced coal. At a rate of 24 million Btu per ton of coal burned, the Project would displace 9 tons of burned coal annually.

As shown, the Project would potentially displace approximately 122 metric tons of CO_2e per year, and approximately 3,660 metric tons of CO_2e over the course of 30 years. These GHG-reducing mechanisms are consistent with statewide reduction goals and for these reasons the Project would have a less than significant impact.

4.8.4 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

This section is based on the analysis and findings of the *Phase 1 Environmental Site Assessment* (SHN 2018, included as *Appendix D*).

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, § 25501 as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in 22 CCR Section 662601.10 as follows:

> A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Most hazardous materials regulation and enforcement in Mendocino County is managed by the Mendocino County Environmental Health Division of the County Health and Human Services Agency. The Environmental Health Division consists of 22 employees who carry out the mission to safeguard the public's health from environmental hazards. This is achieved through community education efforts and by enforcement of state and local laws to ensure safe supplies of food and water, to monitor the proper management of wastes and hazardous materials, to investigate environmental health-related causes of illness and to abate hazardous environmental health conditions. The County will refer large cases of hazardous materials contamination or violations to the RWQCB and the California Department of Toxic Substances Control (DTSC). It is not at all uncommon for other agencies, such as the County Environmental Health Division and both the federal and state Occupational Safety and Health Administrations, to become involved when issues of hazardous materials arise.

Transporters of hazardous waste in California are subject to many federal and state regulations. They must register with the California Department of Health Services (DHS) and ensure that vehicle and waste container operators have been trained in the proper handling of hazardous waste. Vehicles used for the transportation of hazardous waste must pass an annual inspection by the California Highway Patrol. Transporters must allow the Highway Patrol and/or the DHS to inspect its vehicles and must make certain

required inspection records available to both agencies. The transport of hazardous materials that are not wastes is regulated by the U.S. Department of Transportation through national safety standards.

Other risks resulting from hazardous materials include the use of these materials in local industry, businesses and agricultural production. The owner or operator of any business or entity that handles a hazardous material above threshold quantities is required, by state and federal laws, to submit a business plan to the local Certified Unified Program Agency (CUPA). Mendocino County Environmental Health Division is the CUPA within the county boundaries.

Under Government Code Section 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. The Project Site is not listed by the DTSC or SWRCB as a hazardous substances site on the list of hazardous waste sites compiled pursuant to Government Code Section 65962.5 (Cortese List).

Project Location and Surroundings

The Project Site is located at 440 East Hill Road, Willits, California, comprising ±27.7 acres. The site is bound by Haehl Creek, beyond which is agricultural land to the north; U.S. Highway 101, beyond which is agricultural land to the east; East Hill Road, beyond which is a hospital and medical offices to the south; and the Northwestern Pacific Railroad rail corridor, beyond which is the Microphor facility to the west. There is currently one small structure present on the subject site. Generally, the property is vegetated with some mature trees and grasses. Mature blackberry bushes are present along the western property line. The mature trees are generally present along the two unnamed creeks that are located in the central and southeastern portions of the property. Water was present in both creeks during the April 2018 site reconnaissance; however, there was little to no flow. Access to the property is along East Hill Road in the southeastern corner of the site. A small shed is located approximately 30 feet from the access gate and was formerly used as a horse feeder. The property perimeter is fenced. PG&E currently holds an easement for an overhead electric transmission line.

Environmental Database Review

SHN obtained environmental agency listings database information for the Project Site and for properties located up to a one-mile radius of the Project Site from Envirosite Corporation. The Envirosite report is included as Attachment B of Appendix F of the SHN Phase 1 Environmental Site Assessment (see *Appendix D*). The purpose of the environmental agency listings database review is to identify whether the Project Site or adjacent sites have been listed on local, state, or federal government database listings or retain historical documentation regarding current and/or past usage that could potentially pertain to Recognized Environment Conditions (RECs). Sites within the search radii were also reviewed to identify outlying sites that might potentially impact the subsurface soil and/or groundwater conditions beneath the Project Site. The following section summarizes the database search findings that pertain to the Project Site.

Using the American Society for Testing and Materials Standard Practice E1527-13 recommended search radii, SHN reviewed the Environmental Data Resources, Inc. (EDR) database, which tracks sites with known

hazardous materials and hazardous material releases (*Appendix D*). EDR did not identify any potential or confirmed state or federal Superfund site located on or immediately adjacent to the subject property during its review of the USEPA's Comprehensive Environmental Response, Compensation and Liability Information System and National Priorities List databases. The subject site does not appear on the USEPA's Emergency Response Notification System (ERNS) database or contain any business or facility that is listed as a Resources Conservation and Recovery Act (RCRA) large quantity generator.

Historical Aerial Photograph Review

Available aerial photographs of the Project Site and the surrounding area were obtained from Environmental Data Sources, Inc. (EDR), National Agriculture Imagery Program, U.S. Department of Agriculture, and from the collections at the USGS. Aerial photographs showing the area of the Project Site for the years 1941, 1952, 1964, 1976, 1983, 1993, 2006, and 2010 were reviewed by SHN. Copies of the aerial photographs are provided in the *SHN Phase 1 Site Assessment Appendix 2 (EDR Aerial Photo Decade Package)* (See *Appendix D*). The following is a summary of the aerial photographs reviewed:

1941 The subject site boundary as shown by EDR is not accurate in this photograph. The subject site is undeveloped and vegetated. Haehl Creek is visible west of the site and appears to be in a location similar to its present-day configuration. A riparian corridor, as seen by mature trees, is present along the two creeks located on this subject site. The two creeks appear to be located similar to their present-day configurations. East Hill Road is shown as developed and forms the southern property boundary of the subject site. The properties that abut the site to the north and northeast are vegetated/undeveloped and appear to be used for agriculture. The property that abuts the site to the south, along East Hill Road is vegetated/undeveloped and appears to be used for agriculture. The properties that abut the site to the east and southeast appear to be orchards. The former Northwestern Pacific Railroad corridor is visible immediately west of the site, forming its western property boundary. An orchard and two buildings are visible on the parcels located west of the railroad corridor. Baechtel Road is visible and is in its present-day configuration.

1952 The site and surrounding vicinity are similar to the 1941 photograph with the exception that the orchards located east and southeast of the site appear sparser, and two large buildings and a residence are west of the railroad line.

1964 The site and surrounding vicinity are similar to the 1952 photograph with the exception that a dirt path is visible traversing the site from the northwest corner to the south boundary of the site at East Hill Road. The orchards located east and southeast of the site do not appear to be maintained.

1976 The site is similar to the 1964 photograph. A rectangular building is visible along the railroad corridor on the property that abuts the site to the west. The orchard on the property that abuts the site to the east is no longer visible. A residential subdivision is visible southwest of the site, along Haehl Creek.

1983 The site and surrounding vicinity are similar to the 1976 photograph. An additional building is visible on the property that abuts the site to the west.

1993 The site is generally similar to the 1983 photograph. Increased development of the surrounding vicinity west of the site is visible. A residential subdivision is visible northwest of the site, along Haehl Creek. The orchard southeast of the site is no longer visible.

2006 The site and surrounding vicinity is generally similar to the 1993 photograph. The property that abuts the site to the south, across East Hill Road is developed with a building located in the northern portion of the property.

2010 This photograph is generally similar to the 2006 photograph. Haehl Creek Drive, with a residential subdivision located at its southern terminus, is visible.

Based upon SHN's review of the available information and site reconnaissance for the subject site, no controlled REC was identified during the completion of the Phase I Environmental Site Assessment.

Historical Sanborn Fire Insurance Maps

According to EDR-Sanborn, Sanborn maps published did not cover the Project Site. A copy of the EDR Certified Sanborn Map report noting that coverage was not available for the site is included in Appendix 4 of *Appendix D*).

United States Geological Survey Topographic Maps

SHN reviewed topographic maps with coverage of the subject site that were published in 1942, 1948, 1961, 1991, and 2012. A description of the features observed at the site and surrounding properties is presented in *Appendix D*).

Historical topographic maps were obtained from the USGS for the area of the Project Site. Historical topographic maps dated 1942, 1948, 1691, 1991, and 2012 were available for review. Based on the review of these topographic maps, the Project Site is shown to be undeveloped in 1948. The first indication of development on the Project Site is seen as the appearance of a building on the 1961 map, however, based on review of the 1952 aerial map, it can be determined that two buildings were constructed prior to 1952. Finally, further development of a third long rectangular, building is shown on the 1991 topographic map.

Site Reconnaissance

SHN staff performed site reconnaissance on April 26, 2018, which consisted of a visual inspection of the subject site, noting potential sources or evidence of any hazardous materials releases, location and alignment of utilities, site drainage patterns, uses of adjacent parcels, potential for migration from offsite sources, and any other pertinent or unusual information that would aide in the development of the Phase I Environmental Site Assessment. A site plan, which identifies locations of April 2018 site reconnaissance photographs and observations, is included in SHN's Phase 1 Environmental Site Assessment Appendix 1 (see *Appendix D*).

The subject site does not have electric, gas, water, or sewer services. Stormwater runoff from the site appears to infiltrate into the subsurface at the site or flows to the two small creeks. Based on site topography, drainage is generally to the west-northwest, toward the Haehl Creek. No odor, staining, or sheen was noted at the subject site during the April 2018 site reconnaissance. No area of stressed vegetation, pits, ponds, or lagoons was observed during the April 2018 site reconnaissance.

An area of standing water was observed in the southeastern portion of the site during the April 2018 site reconnaissance. Household-like waste (e.g., bottles, trash bags, food packaging, and clothing) was noted in the southeastern portion of the site during the April 2018 site reconnaissance.

Utilities

The site does not have electric, gas, water, or sewer services.

Asbestos-Containing Materials

The use of asbestos in common building materials has been mostly discontinued since the late 1970s. The site only has one structure, an old dilapidated horse feeder shed. Suspect asbestos-containing materials were not observed within the building materials at the Project Site.

Lead-Based Paint

The use of lead-based paints was common practice in building construction prior to 1978; however, there are no painted structures onsite.

Aerially Deposited Lead

Based on current and historic use, the site is not at risk for aerially deposited lead.

Polychlorinated Biphenyls

The federal Toxic Substances Control Act generally prohibited the domestic manufacturing of polychlorinated biphenyls (PCBs) after 1979. However, hydraulic fluids or dielectric insulating fluids typically found in electrical transformers, hydraulic equipment, capacitors, and similar equipment may contain PCBs if such materials have been present prior to the late 1970s. No pole-mounted electrical transformers were observed within the Project Area; therefore, the site does not have the potential for the presence of PCBs.

Radon

Radon is a colorless, odorless, tasteless, and radioactive gas that is produced as a natural decay product of uranium. Because of its radioactivity, studies have shown that at elevated concentrations there is a link between radon and lung cancer. Persons living in a building with elevated radon concentrations may have an increased risk of contracting lung cancer over a period of years. The Project Site is located in an area of low radon potential with levels of radon typically below the USEPA radon threshold limit of 4.0 pCi/L Potentially high radon levels are typically associated with geologic uplift, the uranium/lignite belt, or granite or shale outcrops. The closest high radon concentrations are generally associated with the Monterey Formation however, the Project Site is underlain by Franciscan geologic formation; therefore, radon is not anticipated to be present at the Project Site.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Less than significant.

Some hazardous materials, such as diesel fuel, gasoline and other lubricants, would be used onsite during construction and would be stored onsite and used on and offsite during Center operation. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. Due to the relatively small quantities involved, and because all on- and offsite storage and use of lubricants, fuels and solvents would be conducted consistent with applicable regulations, use of these materials would not create a significant hazard to the public and impacts would be less than significant. No mitigation required.

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Less than significant.

During construction, there would be a low risk for accidental discharge of hazardous materials associated with heavy duty machinery. Related risks would be addressed through the implementation of BMPs and contractor compliance with related regulatory requirements for transport and temporary storage of construction related fuels and lubricants. Therefore, the potential for the accidental release of hazardous materials during construction is considered unlikely. A less than significant impact would occur.

During operation, the Center would be equipped with an onsite emergency power system consisting of a pad-mounted 150kW diesel engine generator with underground fuel tank. The underground tank will have a capacity sufficient for 72 hours of generator operation at 100 percent load and would be designed and constructed consistent with applicable standards, including secondary containment. The Center would also include a 200-sf Hazardous Materials Storage Building in the western portion of the warehouse parking area. This building would be designed for hazardous materials storage consistent with applicable regulations and would be specially designed for ventilation and secondary containment. Because onsite storage and use of hazardous materials would comply with all applicable regulations, impacts are less than significant, and no mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Less than significant.

There are no schools located within ¼ mile of the Project Site. The nearest school to the Project Site is Willits Charter School, located approximately 0.6 mile to the northwest. Please see the response to VIII. b) above. Impacts would be less than significant. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

No impact.

SHN conducted a search of the DTSC's Hazardous Waste and Substance List (Cortese List) and EnviroStor online database and the SWRCB's GeoTracker online database for the Project Area and did not identify any potential or confirmed state or federal Superfund sites located on or immediately adjacent to the Project Site. Additionally, the site does not appear on the USEPA's ERNS database, or contain any business or facility that is listed as a RCRA large quantity generator. Therefore, the Proposed Project would not be located on a site which is included on a list of hazardous material sites. No impact would occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

No impact.

The closest airport to the Project Site is the Ells Field Willits Municipal Airport, approximately 4.5 miles northwest of the Project Site. The Project Site is not located within the Ells Field Airspace Plan (Mendocino County Airport Land Use Commission 1996). Due to the distance of the Project Site to a public use airport, no hazards to people residing or working in the Project Area would result. No impact would occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

No impact.

The Mendocino County Operational Area Emergency Operations Plan (2016) and the Mendocino County Multi-Hazard Mitigation Plan (2014) set forth policies to address and respond to extraordinary emergency situations associated with natural disasters, technological incidents, weapons of mass destruction, and national security emergencies affecting Mendocino County (Mendocino County 2019). Construction of the Proposed Project would not interfere with the above listed emergency response or evacuation plans and would enhance ability to respond to emergency situations locally. No impact would occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Less than significant.

According to the Draft Fire Hazard Severity Zones in Local Responsibility Area map published by CAL FIRE, the Project Site is located in a moderate fire hazards severity zones of local responsibility in Mendocino County. However, as described in the Project Description, the Proposed Project will have several fire prevention measures including buildings designed for durability and wildfire resistance with exterior material such as noncombustible fiber cement siding with adhered masonry stone veneer wainscots. Roofing material will be asphalt composed shingle on the main roofs with lower roofs being metal standing seam. Additionally, landscaping will be designed to emphasize safety and security as well as fire resistance. There are no significant forest lands in close proximity to the Project Site and the U.S. Highway 101 bypass serves as a firebreak on the east side of the site. The facility will also house 100 permanent Corpsmembers who are trained and equipped to respond to both natural and man-made disasters (including fire) in an area that currently does not have this type of facility. Therefore, the Project will have a less than significant impact on increasing the wildfire risk within the area and/or further exposing people or structures to additional significant risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

Regional Hydrology

The Project Site is located within the Eel River Basin, Upper Eel Hydrologic Unit. The Eel River Watershed Basin is the third largest watershed located entirely in California and drains an area of approximately 3,684 square miles (USGS 2019).

The watershed spans three counties, of which 1,477 square miles are located along the mainstem. The topography of the watershed creates a drainage pattern that runs from southeast to northwest, except in the Middle Fork basin and the Eel headwaters, where water runs from east to west. The watershed is bordered on the north by the basin of the Mad River, on the east by that of the Sacramento River, on the west by that of the Mattole River, and on the south by those of the Russian River and Ten Mile River. Major centers of population on the river include Willits, Garberville, Redway, Scotia, Rio Dell, Fortuna, and Ferndale. Most of the Eel River watershed is underlain by sedimentary rock of the Franciscan Assemblage (or Complex), whose rocks date back to the Late Jurassic (161-146 million years ago). The Eel River basin is among the most seismically active areas in California, especially in the north (the river empties into the Pacific only several miles north of Cape Mendocino near the Mendocino Triple Junction, which marks the northern end of the San Andreas Fault and produces frequent earthquakes due to the juncture of three tectonic plates). Elevations within the analysis area range from approximately 80 feet at the mouth of Lower Larabee Creek to approximately 3,550 feet along the Brushy Mountain Ridge in the Thompson Creek sub-basin.

The main source of all water in Mendocino County is precipitation in the form of rain or snow. Average annual rainfall in Mendocino County ranges from slightly less than 25 inches in the Ukiah area to more than 80 inches near Branscomb. Rainfall is often from storms that move in from the northwest. The area typically has little to no rainfall in the summer months.

Surface water in Mendocino County is used for a variety of agricultural, urban, and industrial activities. Agricultural uses include drinking water for livestock, wash water on dairies, irrigation of crops and pasturelands, and frost protection of sensitive crops in the spring. Urban uses include water used for drinking water and other indoor and outdoor household activities, including flushing of toilets and irrigation of gardens. Industrial users of water include mining, hydroelectric power, and sewage treatment activities. Groundwater is the main source for municipal and individual domestic water systems, outside of the Ukiah Valley, and contributes significantly to irrigation. Wells throughout Mendocino County support a variety of uses, including domestic, commercial, industrial, and agricultural needs, and for fire protection. In Mendocino County, groundwater is found in two distinct geologic settings: the inland valleys and the mountainous areas. Mountainous areas are underlain by consolidated rocks of the Franciscan Complex, which are commonly dry and generally supply less than five gallons per minute of

water to wells. Interior valleys are underlain by relatively thick deposits of valley fill, in which yields vary from less than 50 to 1,000 gallons per minute (County General Plan 2009).

Groundwater in Mendocino County is divided into six groundwater basins. The Proposed Project is located within the Little Lake Valley Groundwater Basin, which spans approximately 16 square miles (10,020 acres). The basin is approximately seven miles in length and up to three miles wide near the middle of the valley. The City of Willits is located in the western-central portion of the valley. The valley drains to the north by several streams including Baechtel, Broaddus, Davis, Haehl, and Willits creeks. The marsh area at the north end of the valley drains to the northwest through Outlet Creek. Annual precipitation is approximately 49 inches (California Groundwater Bulletin 118 2016).

Onsite Drainage

The Project Site is currently undeveloped and generally level with approximately five feet of relief from south to north. Site drainage is primarily by sheet flow to the low-lying wetland areas and existing onsite tributaries. These include a tributary to Davis Creek in the southeast and a tributary to Haehl Creek near the center of the site. Both tributaries flow northeast and leave the site via culverts that extend under U.S. Highway 101.

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

Less than significant.

The majority of the precipitation for the area occurs during the winter months; however, adverse storm events can also occur outside of the winter. During construction of the Proposed Project, impacts to water resources could occur without proper controls to protect water quality and reduce impacts to soil erosion. Soil can be loosened during demolition, fill and grading, paving, and tree removal processes. Loosened soils and spills of fluids or fuels from construction vehicles and equipment or miscellaneous construction materials and debris could degrade surface and ground water quality. A heavy rainfall event could cause pollutants to flow offsite and reach nearby surface water drainages. The Project Site and area impacted would be more than one acre, making the Proposed Project subject to the requirements of the statewide NPDES storm water permit for construction (Order 98-08-DWQ). A SWPPP, a required element of the NPDES, includes a listing of BMPs to prevent construction pollutants and products from violating water quality standards or waste discharge requirements. The SWPPP would be required for the Proposed Project.

All operational activities would be performed consistent with water quality regulations and all hazardous material special use areas would be designed to protect against surface and groundwater contamination.

Additionally, CCC would comply with all federal, state, and local regulations regarding the storage of hazardous waste and all onsite hazardous waste storage would occur within the specially designed hazardous waste storage building which would be equipped with secondary containment.

Storm drain improvements will be designed in accordance with City standards and the County of Mendocino Low Impact Development Standards Manual. Onsite improvements will be designed for the 85th percentile storm event and site grading will ensure all impervious areas and surface drainage are directed toward bioretention areas prior to release to existing wetlands and drainage channels. Final treatment measures will be consistent with a Storm Water Control Plan. A less than significant impact would occur. No mitigation required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐

Less than significant.

Domestic water for the Proposed Project would be provided by the City of Willits. As described in *Section 4.19 Utilities and Service Systems*, the City's primary water source is surface water and groundwater is only used as an emergency backup supply. As stated under *Section 4.19.2 Utilities and Service Systems* Environmental Checklist and Discussion item b), the City has an adequate surface water supply through at least 2035 (NMR. August 7, 2019).

The Project would add impervious surfaces such as, parking lot, roadway, buildings, and pavement in areas that are currently undeveloped land. This would result in an increase of impervious area of slightly more than an acre, representing approximately 0.00009 percent of the Little Lake Valley groundwater basin. This addition would not substantially increase the amount of impervious surface regionally nor substantially interfere with groundwater recharge. Surface water drainage would receive pre-treatment through bio-retention swales prior to being directed to onsite tributaries where it would remain available for downstream groundwater recharge. As such, the Proposed Project would have a less than significant impact on groundwater. No mitigation required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or offsite;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐

Less than significant.

The Proposed Project will not substantially alter the existing drainage pattern of the site; however, improvements to the drainage system will be made to better convey stormwater runoff. Site drainage would be designed for the 85th percentile storm event and therefore would not exceed the capacity of downstream the existing or planned drainage systems. The Proposed Project will have a less than significant impact to flood flows. No mitigation required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Less than significant.

The Project Site is not located in an area protected by levees. According to the Federal Emergency Management Agency maps, the Project Site is located in Zone X (area of minimal flood hazard). Additionally, The Project Site is neither located near any large bodies of water nor located inland, and not within a seiche, tsunami, or mudflow hazard area. Therefore, the Proposed Project would not be subject to inundation by seiche, tsunami, or mudflow. A less-than-significant impact would occur. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

No impact.

As stated above, the Proposed Project would be required to comply with SWPPP and NPDES regulations and would not obstruct or conflict with water quality control or sustainable groundwater management plans. No mitigation is required.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

The Project Site is located at 440 East Hill Road in Willits, California. The 27.7-acre state owned property is comprised of two parcels located north of East Hill Road between the U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west (see *Figure 2.3-2*). The Project Site is zoned (IP) Industrial Park and (MH) Heavy Industrial. The nearest residential use is located approximately 150 feet northwest of the Site (Redwood Meadows Senior Housing) and is buffered by the former railroad corridor and Haehl Creek. The site is currently undeveloped and generally level with approximately five feet of relief from south to north.

The State of California and state-owned land, such as the Willits Center parcels, are not subject to local city or county land use and zoning regulations. However, the State is subject to the requirement under CEQA to assess project-related impacts that may occur as a result of conflicts between existing and proposed land uses.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒

No impact.

Projects such as a railroad line, major highway, or water canal may result in physically dividing an established community by removing existing roadway connections, walkways and bike paths and other types of links between community areas. This may result in the division of an existing community by

removing those connections. The Proposed Project would not introduce elements that would result in the removal of roadways or other connections in the surrounding community. The Proposed Project would have no impact in this area. No mitigation required.

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

No impact.

The State of California and State-owned land, such as a CCC facility, are not subject to local city or county land use and zoning regulations. Therefore, the Proposed Project would have no impact in this area. No mitigation required.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

The most predominant minerals found in Mendocino County are aggregate resources, primarily sand and gravel. Three sources of aggregate materials are present in Mendocino County: quarries, instream gravel, and terrace gravel deposits. For most aggregate uses, rock from each of these sources requires varying amounts of processing. Depending on the site, the processing operations may include site preparation, removal of overburden, blasting, excavation, crushing, screening, classifying, washing, and product batching. Additional processing operations used less frequently are those necessary to develop specialty products and remove various deleterious substances.

The demand for aggregate is typically related to the size of the population, and construction activities, with demand fluctuating from year to year in response to major construction projects, large development activity, and overall economic conditions. After the completion of U.S. Highway 101 in the late 1960s, the bulk of aggregate production and use shifted primarily to residential and related construction. However, since 1990, use has begun to shift back toward highway construction. The long-term effects of yearly harvesting of sand and gravel resources are largely unknown but have resulted in streambed location and depth changes. Other impacts associated with instream mining include impacts to fishery resources such as reduction in spawning gravel, sediment input into waterways as a result of road construction, impediments to fish migration as a result of the construction of summer road crossings and impacts to bridge abutments due to streambed alterations. Instream mining has decreased significantly in Mendocino County in recent years, replaced by increased quarrying and terrace mining permit requests.

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

No impact.

According to Mineral Land Classification maps located on the DOC website, the Project Site is not located in a mineral resources zone. The Proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. There are no mining activities being conducted on the site and no mining activities are planned for the site. Therefore, no impact would occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No impact.

The Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, because no mining operations exist on or adjacent to the Project Site (Mendocino County 2009). Therefore, no impact would occur.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

4.13.1 Environmental Setting

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn}/CNEL). The L_{eq} is a measure of ambient noise, while

the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2008), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend length-wise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Existing Ambient Noise Environment

The noise environment in the Proposed Project Area is impacted by various noise sources. Mobile sources of noise, especially cars and trucks traveling on Highway 101, are the most common and significant sources of noise in Project Area. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout Willits that generate stationary source noise. The Project Site is located outside of any airport land use plan. Furthermore, the Project Site is located more than two miles from any airport.

Existing Ambient Noise Measurements

The Project Site is currently vacant of any structures. The site is relatively flat and is surrounded by scattered urban development to the west, north, and south. A mix of residential, office, and light industrial land uses dominate the area. In order to quantify existing ambient noise levels in the Project Area, ECORP conducted three short-term noise measurements on the afternoon of October 20, 2019. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project Site (see *Appendix E, Attachment A* for Noise Measurement Locations). The October 20, 2019 measurements were taken between 1:06 p.m. and 2:29 p.m. These short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in in *Table 4.12-1*.

Table 4.12-1. Existing (Baseline) Noise Measurements

Location Number	Location	Duration (min)	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
September 29, 2017 Measurements						
1	On the Project Site where the proposed dorms will be located.	30	**53.9**	38.4	72.9	1:06 p.m. – 1:36 p.m.
2	On the Project Site where the proposed education building will be located.	30	**53.7**	38.2	64.7	1:40 p.m.- 1:10 p.m.
3	Residence closest to the Project Site where everyday noise producing activities will occur located on East Hill Road approximately 490 feet from the Project Site.	10	**54.8**	41.8	69.6	2:19 p.m. – 2:29 p.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See *Appendix E* for noise measurement outputs.

As shown in *Table 4.12-1*, the ambient recorded noise levels ranged from 53.7 to 53.9 dBA on the Project Site. The noise most common in the Project vicinity is produced by automotive vehicles (cars, trucks, buses, motorcycles). Traffic moving along streets produces a sound level that remains relatively constant and is part of the Project Area's minimum ambient noise level. Vehicular noise varies with the volume, speed and type of traffic. Slower traffic produces less noise than fast moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including

sirens, vehicle alarms, slamming of doors, trains, garbage and construction vehicle activity and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see *Appendix E*) and traffic volumes from the Project transportation impact analysis. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in *Table 4.12-2*.

Table 4.12-2. Existing (Baseline) Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway
Highway 20 (South Main Street)		
North of the Baechtel Road / Muir Mill Road intersection	Commercial, Hotel & Residential	57.1
South of the Baechtel Road / Muir Mill Road intersection	Residential	57.4
Muir Miller Road		
West of South Main Street	Commercial & Residential	41.0
Baechtel Road		
Between Highway 20 & East Hill Road	Commercial & Residential	50.4
North of East Hill Road	Industrial & Residential	50.0
East Hill Road		
Between Baechtel Road and Haehl Creek Drive	Commercia, Industrial and Residential	53.2
East of Haehl Creek Drive	Industrial & Residential	51.9
Haehl Creek Drive		
South of the East Hill Road	Industrial & Residential	46.7

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers 2019. Refer to *Appendix E*, for traffic noise modeling assumptions and results.

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 41.0 to 57.4 dBA CNEL. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. It should be noted that the modeled noise levels depicted in *Table 4.12-1* may differ from measured levels in *Table 4.2-2* because the measurements represent noise levels at different locations

around the Project Site and are also reported in different noise metrics (e.g., noise measurements are the L_{eq} values and traffic noise levels are reported in CNEL).

Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity (ppv) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.2 Noise (XIII) Environmental Checklist and Discussion

	Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Less than Significant.

Land Use Noise Compatibility

The City of Willits General Plan does not provide information for land use compatibility for new development, as such the State Office of Planning and Research (OPR) Noise Element Guidelines will be used for comparison purposes. The State OPR Noise Element Guidelines includes a Land Use Compatibility Matrix that provides a tool to gauge the compatibility of new land uses relative to existing noise levels. This table (presented as Table 5 in *Appendix E*, Attachment F), identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. As previously stated, the Project Site is designated in the City of Willits General Plan as "Industrial General"; however, the Project would include accommodations where some members of the CCC would spend weeks to months living and sleeping on the site. As such, the Project land use noise compatibility will be compared to that of land designated mixed use residential. In the case that the noise levels identified at the Proposed Project Site fall within levels considered normally acceptable, the Project is considered compatible with the existing noise environment.

In accordance with the OPR Land Use Compatibility Matrix, an acceptable existing noise level for locating mixed use residential is 50 - 65 dBA CNEL. In order to quantify existing ambient noise levels in the Project Area, ECORP conducted three short-term noise measurements on October 20, 2019. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent

to the Project Site and are considered representative of the noise levels throughout the day. As shown in *Table 4.12-1*, the ambient noise level recorded on the Project Site ranged from 53.7 to 53.9 dBA. As this noise level falls within the OPR standards, the Project Site is considered an appropriate noise environment to locate the proposed land use.

Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., building construction, paving). Noise generated by construction equipment, including earthmovers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive receptors in the vicinity of the construction site.

Table 4.12-3 indicates the anticipated noise levels of construction equipment. The average noise levels presented in *Table 4.12-3* are based on the quantity, type, and acoustical use factor for each type of equipment that is anticipated to be used.

Table 4.12-3. Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Noise (L_{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L_{eq}) at 50 Feet (dBA)
Crane	80.6	72.6
Dozer	81.7	77.7
Excavator	80.7	76.7
Generator	80.6	77.6
Grader	85.0	81.0
Other Equipment (greater than 5 horsepower)	85.0	82.0
Paver	77.2	74.2
Roller	80.0	73.0
Tractor	84.0	80.0
Dump Truck	76.5	72.5
Concrete Pump Truck	81.4	74.4
Welder	74.0	70.0

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), dated January 2008.

The nearest noise-sensitive land uses consist of a senior apartment community just west of the northern boundary of the Project Site, approximately 200 feet from the proposed development area. The noise

levels from construction equipment at 50 feet range from 70.0 dBA to 81.0 dBA. The noise levels from construction operations decrease at a rate of approximately 6.0 dB per doubling of distance from the source. Thus, the noise levels at the nearest residences, approximately 200 feet away, would range from 58.0 dBA to 69.0 dBA.

The City does not limit the time that construction can take place or promulgate a numeric threshold pertaining to the noise associated with construction. However, Noise Policy 4.260 of the City of Willits General Plan states that noise created by temporary activities necessary to provide construction or required services should be permitted for the shortest duration possible and limited to time periods that will have the least possible adverse effects on surround land uses. As previously stated, Project construction would take place between 7:00 a.m. and 7:00 p.m. Monday-Friday and, if necessary, between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. Limiting the time that construction can take place but not promulgate numeric thresholds is a common way that most cities and counties regulate construction noise. As long as construction activates take place between the hours listed it will have the least possible adverse effects on surround land uses, such as residences. Additionally, construction would occur through the Project Site and would not be concentrated at one point. Therefore, as long as construction activities are conducted within the stated hours, noise generated during construction activities would not exceed City noise standards.

Onsite Operational Noise

Noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. Nearby noise-sensitive land uses consist of a senior apartment community just west of the northern boundary of the Project Site, approximately 200 feet from the proposed development area, and a single-family residence, approximately 490 feet west of the Project Site across Haehl Creek Drive.

The main operational noises associated with the Proposed Project would be that of warehouse activities, parking lot activities, and the noise produced from the solar generation pad. The worst-case potential for onsite activities has been calculated using the SoundPLAN 3D noise model sourced with noise measurements taken by ECORP at similar facilities, the SoundPLAN 3D model Library, and previous noise studies. The results of this model can be found in *Appendix E, Attachment C*. *Table 4.12-4* shows the predicted Project noise levels at the two closest noise-sensitive land uses in the Project vicinity, as predicted by the SoundPLAN 3D noise model. Nosie levels are represented in L_{eq} and CNEL. Onsite noise producing activities are assumed to occur between 7:00 a.m. and 7:00 p.m. Additionally, *Figure 4.12-1. Project Noise Propagation* shows noise contours depicting the predicted noise levels in the Project vicinity from daily operations.

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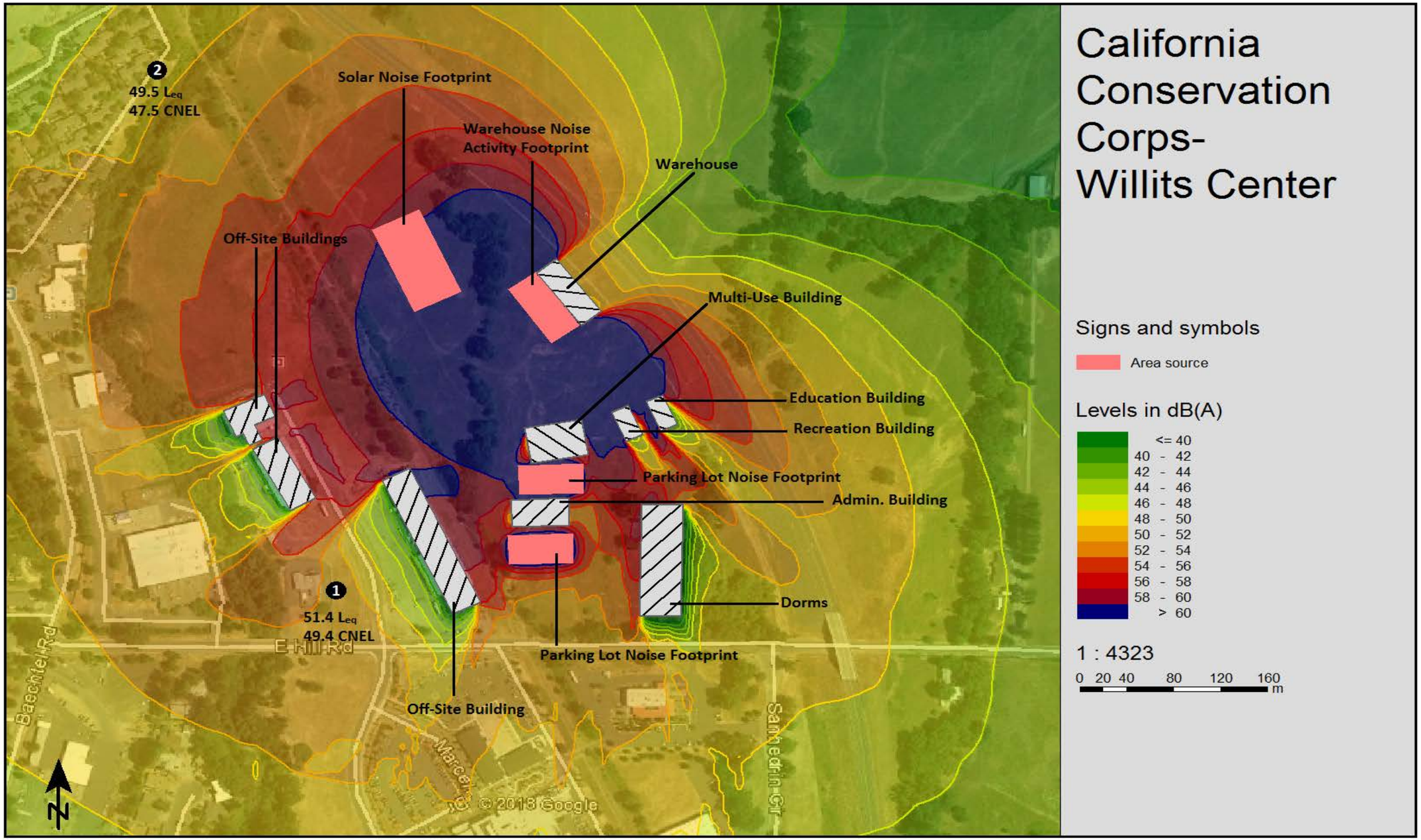

Figure 4.12-1. Project Noise Propagation

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Table 4.12-4. Modeled Operational Noise Levels

Site Number	Location	dBA L_{eq}	dBA CNEL	Exceeds Standard?
1	Residence located 490 feet to the west.	51.4	49.4	**No**
2	Apartment complexes located 200 feet to the west.	49.5	47.5	**No**

Source: Stationary source noise levels were modeled by ECORP using SoundPLAN 3D noise model. Refer to *Appendix E*, Attachment C for noise modeling assumptions and results.

Notes: SoundPLAN-modeled noise levels for stationary sources outputted in L_{eq}, defined as the average acoustic energy content of noise for a stated period of time. L_{eq} is converted to CNEL, defined as a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively. L_{eq} is converted to CNEL based on 12 hours of daily operations at the Project Site (7:00 am – 7:00 pm). The SoundPLAN-modeled noise level for each study location is applied to each hour of operation, while a noise level of zero dB L_{eq} is applied to each of the 12 hours the Project Site is not in operations (7:00 pm – 7:00 am). As shown, the modeled noise generated by Project operations ranges from 49.5 to 51.4 dBA L_{eq} at the nearest noise-sensitive receptors. The L_{eq} noise descriptor is converted to CNEL in order to account for the logarithmic effect of the 12 hours daily that onsite noise producing operations would occur and thus provide a 24-hour average noise level, which is consistent with the City noise standard. Project noise levels range from 47.5 dBA to 49.4 dBA CNEL. These numbers fall below the City's General Plan ambient noise level standard of 55 dBA CNEL at existing residences. Thus, Project onsite noise would have a less than significant impact on vicinity residential receptors.

Operational Traffic Noise

Future traffic noise levels throughout the Project vicinity were modeled based on the traffic volumes identified by Fehr & Peers (2019) coupled with the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see *Appendix E, Attachment F*). *Table 4.12-5* shows the calculated offsite roadway noise levels under existing traffic conditions and full buildout of the Project noise levels, as well as the increase in noise levels between existing traffic levels and Project buildout. The calculated noise levels as a result of the Project at affected land uses are compared to Noise Policy 4.210 in the City's General Plan, which seeks to maintain ambient noise levels of 55 dBA CNEL in existing residential areas. However, as shown in *Table 4.12-2*, the two analyzed segments of roadway located on Highway 20 (South Main Street) currently experience an ambient noise level over 55 dBA CNEL. As such, for the purpose of evaluating noise impacts, these segments will be compared to a 3 dBA increase from existing conditions. While a change of 1 dBA cannot be perceived by humans except in carefully controlled laboratory experiments, a 3-dBA change is considered a just-perceivable difference outside of the laboratory and a change in level of at least 5 dBA is required before any noticeable change in community response would be expected.

Table 4.12-5. Existing Plus Project Conditions Predicted Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway		Increase from Ambient	Noise Standard (dBA CNEL)	Exceed Standard / Significant Impact?
		Existing Conditions	Existing + Project Conditions			
Highway 20 (South Main Street)						
North of the Baechtel Road / Muir Mill Road intersection	Commercial, Hotel & Residential	57.1	57.2	0.1	**>3**	**No**
South of the Baechtel Road / Muir Mill Road intersection	Residential	57.4	57.6	0.2	**>3**	**No**
Muir Miller Road						
West of South Main Street	Commercial & Residential	41.0	41.0	0.0	**55**	**No**
Baechtel Road						
Between Highway 20 & East Hill Road	Commercial & Residential	50.4	51.0	0.6	**55**	**No**
North of East Hill Road	Industrial & Residential	50.0	53.0	3.0	**55**	**No**
East Hill Road						
Between Baechtel Road and Haehl Creek Drive	Commercia, Industrial and Residential	53.2	53.6	0.4	**55**	**No**
East of the Project driveway (East of Haehl Creek Drive)	Industrial & Residential	51.9	52.0	0.1	**55**	**No**
Haehl Creek Drive						
South of the East Hill Road	Industrial & Residential	46.7	46.7	0.0	**55**	**No**

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers 2019. Refer to *Appendix E, Attachment B* for traffic noise modeling assumptions and results.

As shown in *Table 4.12-5*, predicted increases in traffic noise levels associated with the Project would be less than thresholds. A less than significant impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒

No Impact.

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Once operational, the Project would not be a source of groundborne vibration. Increases in groundborne vibration levels attributable to the Proposed Project would be primarily associated with short-term

construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in *Table 4.12-6*.

Table 4.12-6. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 50 Feet (inches per second)
Vibratory Roller	0.073
Large Bulldozer	0.031
Caisson Drilling	0.031
Loaded Trucks	0.026
Rock Breaker	0.031
Jackhammer	0.012
Small Bulldozer/Tractor	0.001

Source: FTA 2018; Caltrans 2013

The City does not regulate vibration associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2013) recommended standard of 0.2 inch per second ppv with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

It is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to the nearest structure. The nearest structures of concern to the construction site is the senior apartment community approximately 200 feet from the proposed development area. Based on the vibration levels presented in *Table 4.12-6*, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.073 inches per second ppv at 50 feet. Since predicted vibration levels at the nearest structures would not exceed recommended criteria and because the City does not regulate vibration associated with construction, there is no impact.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

No Impact.

The Project Site is located approximately 4.4 miles northwest of the Willits Municipal Airport and is not within any airport land use plan. The Proposed Project will not expose people residing or working in the Project Area to excess airport noise levels. No impact would occur.

4.13.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.14 Population and Housing

4.14.1 Environmental Setting

The Project Site is currently undeveloped. U.S. Census data shows that the City of Willits had a population of 4,888 in 2010. As of the 2010 Census, there were 2,073 total housing units in the community, with a 7.7 percent vacancy rate (159 units), and an average household size of 2.4 persons. According to the American Community Survey (ACS), which provides population estimates on a yearly cycle, the City had a population of 4,844 as of July 1, 2017. Comparatively, the entire County had a 2010 Census population of 87,841 and an ACS 2017 population of 87,497. The County had 40,851 housing units in 2010, a 13.3 percent housing vacancy rate (5,378 units), and an average household size of 2.5 (ACS 2017).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Less than significant impact.

The Proposed Project would not increase the number of homes or provide additional offsite infrastructure in the area. The Project would, however, provide residence for up to 100 personnel (staff and Corpsmembers) at the state-owned Willits Center at a given time, with turnover occurring annually. The Center will operate throughout Lake, Mendocino, and Sonoma counties on a variety of natural resource projects including trail and boardwalk construction, salmon habitat restoration, and stream-bank enhancement. It should be noted that the Project involves relocating an existing use from Ukiah, so there will be no net increase in population within Mendocino County. The impact of population growth is less than significant. No mitigation is required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

No impact.

The project would not remove any existing housing. No mitigation is required.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

Fire Services

The Little Lake Fire Protection District fire station (also called Willits Volunteer Fire Department) is located less than 1,000 feet west of the Project Site at 1575 Baechtel Road, Willits, California. Little Lake Fire provides fire protection and emergency medical services for the people of Willits. Little Lake Fire has a roster of two on-call chief officers, 10 certified captains, 24 certified engineers, 10 swift water rescue technicians, eight confined space rescue technicians, five high angle rescue technicians, 14 basic emergency medical technicians, and 40 volunteer firefighters. Four of the personnel are salaried: one fire chief, one deputy chief, one training chief, and one administrative assistant.

CAL FIRE's Howard Forest Station and Emergency Command Center serves as a secondary public safety answering point for fire and emergency medical services in largely unincorporated Mendocino County. The compound is also the location of the Howard Forest Helitack Base and serves as the headquarters of the Mendocino Ranger Unit. CAL FIRE Howard Forest Station and Helitack Base is located about four miles south of the Project Site via U.S. Highway 101. Upon completion of the Proposed Project, the Project Site can serve as a staging area for CAL FIRE when necessary.

Police Services

The Willits Police Department provides police protection and law enforcement services for the City of Willits, including the Project Site. The Department headquarters is located at 125 East Commercial Street, Willits, California. Willits PD Headquarters provides dispatch, watch commander (shift oversight), administration, and records services for the City of Willits.

Schools

The Willits Unified School District serves 1,550 students in grades TK–12 from the City of Willits and surrounding areas. Committed to the small campus environment, the District is composed of four traditional schools: Brookside Elementary (TK-grade 2), Blosser Lane Elementary (grades 3-5), Baechtel Grove Middle School (grades 6-8), and Willits High School (grades 9-12). In addition to the District's traditional schools, their alternative programs offer students a variety of choices within the District's governance: Sherwood Elementary (K-8) and Sanhedrin Vocational Alternative High School (9-12).

Parks

There are City- and County-owned parks and recreation facilities located in Willits, such as Babcock Park to the northwest and Recreation Grove Park and Willits Rodeo grounds north of the Project Site.

Other Public Facilities

Other public facilities in the area include Willits City Hall and Chamber of Commerce, Mendocino County Museum, and Willits Library.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
	Fire Protection?	☐	☐	☐	☒
	Police Protection?	☐	☐	☐	☒
	Schools?	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Parks?	☐	☐	☐	☒
Other Public Facilities?	☐	☐	☐	☒

No impact.

Fire Protection

The Proposed Project would not require additional fire protection within the City of Willits or nearby unincorporated areas. The Proposed Project consists of construction of a new CCC facility that could also serve as a staging area for CAL FIRE in the event of an emergency. Corpsmembers are trained to assist in fire suppression and vegetation management, which would enhance firefighting capabilities in the City of Willits. Construction of the Proposed Project would not impact fire service for the City of Willits. No impact would occur.

Police Services

A security guard would be employed onsite 24 hours per day, seven days a week and would operate primarily from the recreation building. The Proposed Project would not increase the need for police services within the City's police service area or Mendocino County's sheriff service area. No impact would occur.

Schools

The Proposed Project includes the construction of a new CCC facility and does not require an expansion of residential housing. The Proposed Project would not induce population growth and require an additional need for school facilities. Corpsmembers would attend classes onsite and would not impact local school facilities. No impact would occur. No mitigation required.

Parks

As described above, the Proposed Project does not require an expansion of residential housing and would not induce population growth. The Proposed Project would not displace an existing park and would not require the construction of additional park facilities (the Project includes onsite recreational facilities for resident Corpsmembers). No impact would occur. No mitigation required.

Other Public Facilities

As described above, the Proposed Project does not require an expansion of residential housing and would not induce population growth. The Proposed Project would not increase use of existing public facilities in the area because it would not promote population increase beyond those Corpsmembers who temporarily live onsite. No impact would occur. No mitigation required.

4.15.3 Mitigation Measures

No significant impacts were identified. No mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

There are City- and County-owned parks and recreation facilities located in Willits, such as Babcock Park to the northwest and Recreation Grove Park and Willits Rodeo grounds to the north. These parks provide recreational opportunities for residents including hiking, sports, biking, and skateboarding.

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Less than significant.

The Proposed Project would not generate a substantial increase in the area population; therefore, it would not significantly increase the use of existing neighborhood or regional parks and recreational facilities. Additionally, the Center would have a recreation building and adjacent outdoor amenities (basketball and volleyball courts) open to Corpsmembers for drop-in visits Monday-Friday from 5:00 a.m. to 10:00 p.m. and 24 hours per day on the weekends. The outdoor sports courts would be lighted for night use. Impacts would be less than significant. No mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Less than significant.

The recreational facilities for the Center are an integral part of the Proposed Project. Corpsmembers will need somewhere to exercise in order to maintain a level of fitness sufficient for the rigors of their jobs. The Center has several recreational amenities, discussed in other sections that will keep the overall impact of the Project less than significant with their development. Construction of the recreational facilities will not significantly impact the environment differently from the Center as a whole. No mitigation is required.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

The IS Transportation Analysis is based on a traffic study entitled, "*California Conservation Corps Facility Willits Center Draft Transportation Impact Analysis",* prepared by Fehr and Peers Associates (Fehr & Peers. October 2019) (*Appendix C*). The following summarizes results of the Fehr & Peers traffic study.

4.17.1 Environmental Setting

The scope of the traffic analysis and selection of study intersections was developed in consultation with the Project team. *Figure 4.17-1. Project Area* identifies the following four study intersections:

1. Main Street & Canyon Road/Baechtel Road (unsignalized)
2. Baechtel Road & East Hill Road (unsignalized)
3. Haehl Creek Drive & East Hill Road (unsignalized)
4. Future Project Driveway & East Hill Road (unsignalized)

The traffic study assumes the Project would be completed by year 2023 and analyzes Project generated traffic on the local street system under both existing and future year traffic conditions. The following scenarios were analyzed in the traffic study:

1. Existing (2019) Conditions – traffic counts conducted for this study were analyzed.
2. Existing (2019) plus Project – the Proposed Project trip generation, trip distribution, and trip assignment estimates were added to the existing intersection and roadway segment counts.
3. Future Year (2023) No Project – a 1 percent ambient growth rate per year based on the growth rate of the Project Area was applied to the existing counts.
4. Future Year (2023) plus Project – the proposed project trip estimates were added to the Future Year No Project forecasts.

Methods

Fehr & Peers conducted operations analysis at the study intersections during AM and PM peak hours. The Highway Capacity Manual (HCM) 6th Edition methodology was used to evaluate significant impacts at the four unsignalized study intersections.

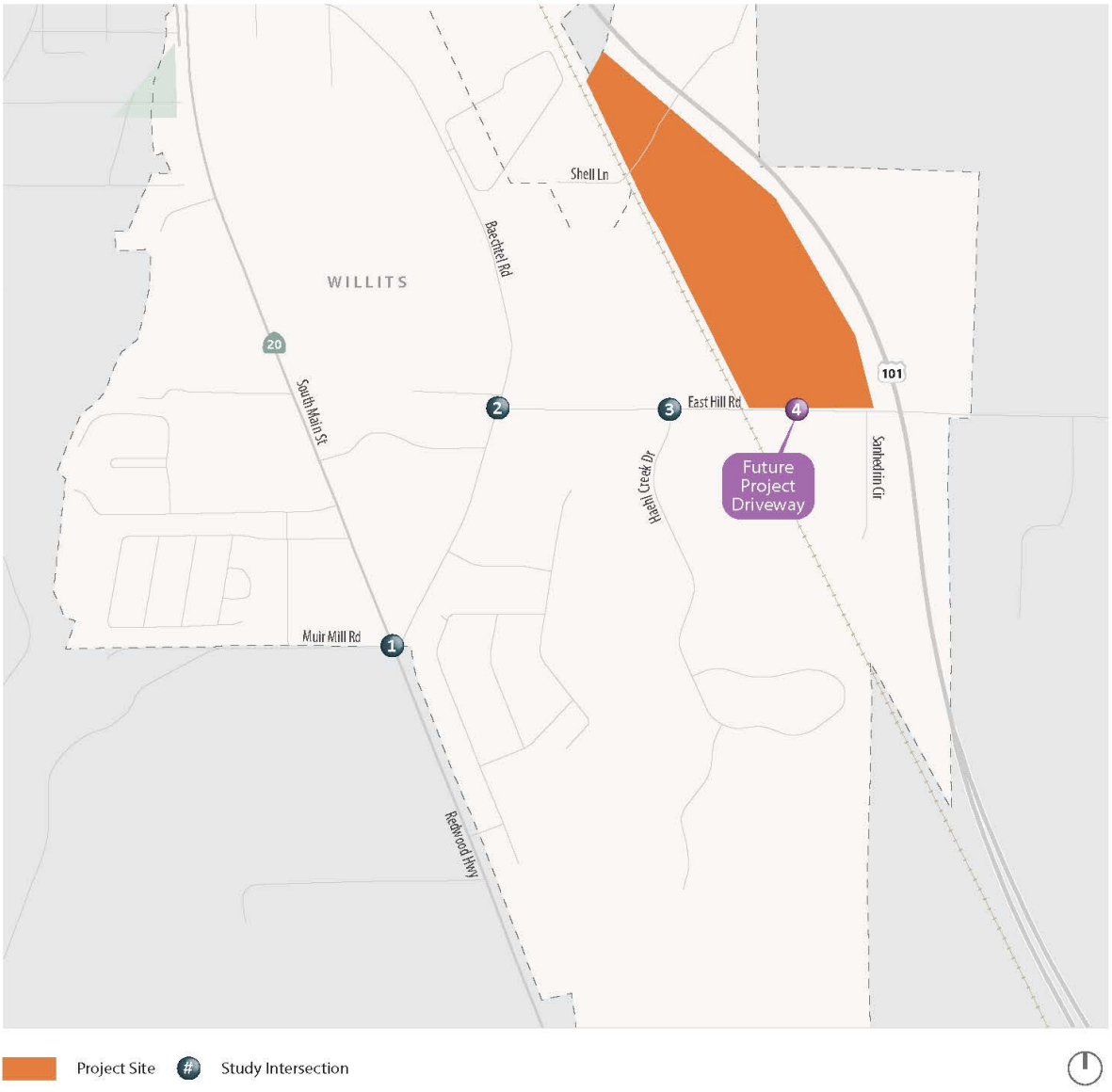

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Figure 4.17-1. Project Area

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Level of Service

The methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from LOS A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for intersections are provided in *Table 4.17-1*.

Table 4.17-1. Intersection LOS Criteria

Level of Service	Description	Signalized HCM Delay in Seconds	Unsignalized HCM Delay in Seconds
A	Signalized: Operations with very low delay occurring with favorable progression and/or short cycle length. Unsignalized: Little or no delay.	< 10.0	≤ 10.0
B	Signalized: Operations with low delay occurring with good progression and/or short cycle lengths. Unsignalized: Short traffic delays.	> 10.0 to 20.0	> 10.0 to 15.0
C	Signalized: Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. Unsignalized: Average traffic delays.	> 20.0 to 35.0	> 15.0 to 25.0
D	Signalized: Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. Unsignalized: Long traffic delays.	> 35.0 to 55.0	> 25.0 to 35.0
E	Signalized: Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. Unsignalized: Very long traffic delays.	> 55.0 to 80.0	> 35.0 to 50.0
F	Signalized: Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. Unsignalized: Extreme traffic delays with intersection capacity exceeded.	> 80.0	> 50.0

Source: Highway Capacity Manual 6th Edition

Regulatory Setting and Significance Criteria

The determination of significance for Project impacts is based on the City of Willits General Plan which states that the acceptable intersection LOS is D or better. Any intersection operating at a LOS of E or F is considered deficient. The following factors were used to assess significant impacts at unsignalized intersections:

1. The intersection is projected to decline to LOS E or F from LOS D or better with the addition of traffic volumes associated with the proposed project, or an intersection operating at LOS E or F experiences increased delay with the addition of traffic volumes associated with the proposed project; **and**

2. The intersection meets peak hour signal warrants either caused by project volumes, or project volumes are added at an intersection that meets peak hour signal warrants in the baseline scenario(s).

The following parameters were used in the operations analysis:

- Synchro 10 software and HCM 6th Edition methodology were used to analyze study intersections.
- Worst case side street delay was reported for two-way stop-controlled intersections under the HCM 6th Edition methodology.
- A peak hour factor (PHF) based on observed conditions was used for the HCM analysis under Existing Conditions. Under Future Year Conditions a PHF of 0.92 was used.

Existing Conditions

This section describes transportation facilities in the Project Area, including the surrounding roadway network, transit, pedestrian, and bicycle facilities in the Project vicinity. Existing intersection operations are also described.

Roadway System

The Project Site is in Willits, located north of East Hill Road bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. Land uses surrounding the Project Site include hospitals, health services, and industrial. Regional access to the site is provided by U.S. Highway 101 and State Route 20 (SR-20). Local access to the site is provided by Baechtel Road, Haehl Creek Drive, East Hill Road, and Main Street. The following discusses the roadways that would provide access to the site and are most likely to experience direct traffic impacts, if any, from the Project.

- *Baechtel Road* is a north-south collector with one travel lane in each direction. The posted speed limit is 35 miles per hour (mph).
- *Haehl Creek Drive* is a local collector with one travel lane in each direction. The posted speed limit is 25 mph.
- *East Hill Road* is a local collector with one travel lane in each direction. The posted speed limit it 40 mph.
- *Main Street* is a collector with one travel lane in each direction with a two-way left turn lane in the vicinity of the Project Area. The posted speed limit is 40 mph.
- *SR-20* is an east-west highway with one travel lane in each direction that runs through Northern California, from Sacramento to the Sierra Nevada.
- *U.S. Highway 101* is a north-south highway with one travel lane in each direction in the vicinity of the Project Area that runs through the states of California, Oregon, and Washington.

Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided on some portions of Baechtel Road, Haehl Creek Drive, East Hill Road, and Main Street. Baechtel Road and Haehl Creek Drive provide five-foot sidewalks on one side of the street in some portions. Main Street provides

five-foot sidewalks on both sides of the street in some portions. East Hill Road does not provide sidewalks.

Bicycle facilities and descriptions are as follows:

- *Bike paths (Class I)* – Bike paths provide a separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic. Such paths can be well situated along creeks, canals, and rail lines. Class I Bikeways can also offer opportunities not provided by the road system by serving as both recreational areas and/or desirable commuter routes.
- *Bike lanes (Class II)* – Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections).
- *Bike routes (Class III)* – Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and to provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes to encourage slow speeds and discourage non-local vehicle traffic via traffic diverters, chicanes, traffic circles, and/or speed tables. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.
- *Separated Bikeway (Class IV)* – Separated bikeways, also referred to as cycle tracks or protected bikeways, are bikeways for the exclusive use of bicycles, physically separated from vehicle traffic. Separated Bikeways were recently adopted by Caltrans in 2015. Types of separation may include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking.

Baechtel Road provides Class II bike facilities. Haehl Creek Drive, East Hill Road, and Main Street do not provide bicycle facilities within the Project Area. The City proposes future Class II facilities on East Hill Road and Main Street and Class III facilities on Haehl Creek Drive (*City of Willits Bicycle and Pedestrian Specific Plan* 2009). The City of Willits is also considering a "Rails to Trails" project for the currently out-of-service Northwestern Pacific Railroad right-of-way located along the Project Site's western boundary.

Transit Service

Transit service in Willits is provided by the Mendocino Transit Authority. The following routes service the Project Area:

- *Route 1: Willits Local* runs Monday through Friday between approximately 7:00 a.m. and 6:30 p.m. with variable headways of about 60 to 75 minutes. Route 1 does not operate on weekends.
- *Route 20: Ukiah-Redwood Valley-Willits* runs Monday through Friday between approximately 6:30 a.m. and 6:30 p.m. with variable headways of about 70 minutes. Route 20 does not operate one weekends.

- *Route 65: Mendocino-Ft. Bragg-Willits-Ukiah-Santa Rosa* runs Monday through Saturday between approximately 6:30 a.m. and 7:45 p.m. and Sunday between approximately 6:30 a.m. and 6:00 p.m. On Monday through Saturday, Route 65 serves bus stops in Willits between approximately 8:30 a.m. and 1:00 p.m. with three-hour headways and between approximately 1:00 p.m. and 6:15 p.m. with two-hour headways. On Sunday, Route 65 only makes one trip and serves bus stops in Willits between approximately 8:30 a.m. and 4:15 p.m.

All three routes have stops through Willits on Main Street. The closest bus stops to the Project Site are located on Main Street approximately 300 feet north of the intersection of Main Street and Baechtel Road.

Traffic Counts

Existing morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period intersection counts were conducted at the study intersections on Thursday, May 30, 2019. Roadway segment counts were also collected on the same day on East Hill Road between Haehl Creek Drive and Sanhedrin Circle. Counts were conducted on a weekday while schools were in session. Existing peak hour intersection volumes, lane configurations, and traffic controls are provided on *Figure 4.17-2 Peak Hour Traffic Volumes and Lane Configurations – Existing Conditions*. The traffic counts for Existing Conditions are provided in Traffic Study Appendix B (See *Appendix C*).

Existing Operations Analysis

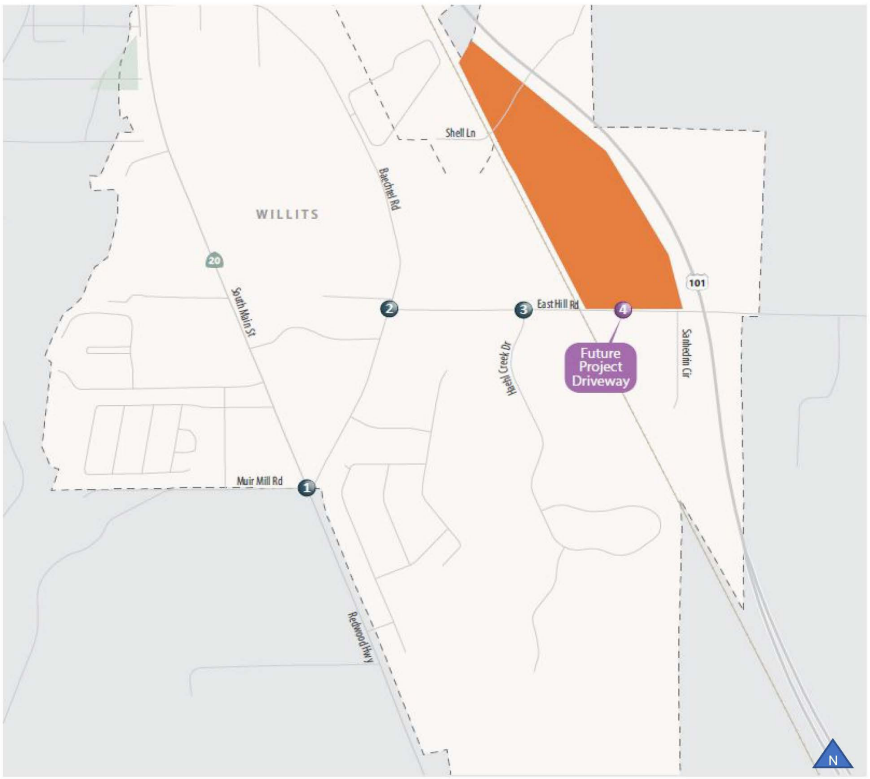
Intersection Operations

As summarized in *Table 4.17-2*, existing operations were evaluated using the methods described in Chapter 1 for the weekday a.m. and p.m. peak hours at the study intersections. The analysis was based on the volumes, lane configurations, and traffic control presented on *Figure 4.17-2*. Observed peak hour factors were used at all intersections for the existing analysis. Detailed intersection LOS calculation worksheets are presented in traffic report Appendix C (see *Appendix C*). As shown, all study intersections currently operate within the LOS standards set by the City in both the AM and PM peak hours except for the intersection of Main Street and Baechtel Road in the PM peak hour.

Table 4.17-2. Existing Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Delay[2]	LOS
Main Street & Baechtel Road	TWSC	AM PM	29 **61**	D **F**
Baechtel Road & East Hill Road	TWSC	AM PM	13 12	B B
Haehl Creek Drive & East Hill Road	TWSC	AM PM	12 13	B B
Future Project Driveway & East Hill Road	TWSC	AM PM	- -	- -

Notes: **Bold** text indicates potentially unacceptable intersection operations.
TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
For TWSC intersections, delay is reported for the worst movement.
Source: Fehr & Peers, 2019



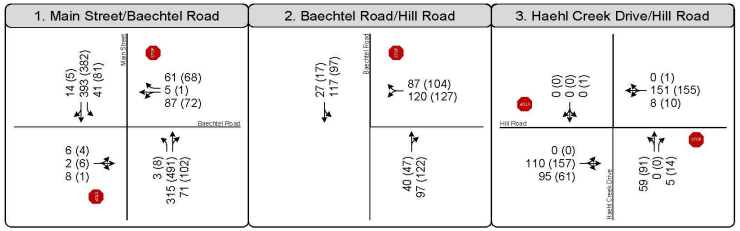


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Figure 4.17-2. Peak Hour Traffic Volumes and Lane Configurations

Existing Conditions

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Signal Warrants

To assess the need for signalization of stop-controlled intersections, the *2014 California Manual of Uniform Traffic Control* (CA MUTCD) (Caltrans 2014) presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant were used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. Only the intersection of Main Street and Baechtel Road meets peak hour signal warrants under Existing Conditions. Signal warrant analysis is presented in traffic study Appendix D (see *Appendix C*).

Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible state or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

Project Characteristics

This section provides an overview of the Proposed Project components and addresses the Proposed Project trip generation, distribution, and assignment characteristics, allowing for an evaluation of Project impacts on the surrounding roadway network. The amount of traffic associated with the Project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the Project Site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

The Project involves development of a new CCC operations center at 440 East Hill in Willits, California to accommodate relocation of the existing CCC Ukiah Center. The proposed 26.7-acre site is located north of East Hill Road bounded by U.S. Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west.

The facility will consist of buildings for administration, housing, work areas, education, recreation, kitchen, and dining for a total building area of approximately 64,038 sf. The building sizes and number of full-time staff for each building are outlined in *Chapter 2 Project Description*, *Table 2.3-2*.

The site would house approximately 100 Corpsmembers. Corpsmembers will live and take classes onsite, and will travel to and from the site in work crews daily for offsite projects in the region. Crews are

expected to arrive or depart the site during the peak hours on weekdays. Corpsmembers are not expected to travel to and from the site during weekdays unless they deploy with a crew.

The site will include 26 full-time staff including administration and instructors, and 7-10 public visitors are expected daily. Public visitors, administrative staff, and instructors for the classes are expected to drive alone in a personal vehicle and arrive and depart during the peak hours from the site. Delivery vehicles, including U.S. Postal Service, UPS, FedEx, solid waste pick up, and supply and food deliveries, are expected to access the site during off-peak hours.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created for the daily condition and for the peak one-hour period during the morning and evening commute when traffic volumes on the adjacent streets are typically the highest. Fehr & Peers developed trip generation estimates for the Project. Trip generation was based on the proposed operational characteristics of the site, including the number of Corpsmembers, visitors, and staff, hours of operation, and types of events and activities. Project trip generation estimates are presented in *Table 4.17-3*.

As presented in *Table 4.17-3*, the Project is expected to generate an estimated net new external 101 daily trips, including 48 trips (36 inbound/12 outbound) during the AM peak hour and 48 trips (12 inbound/36 outbound) during the PM peak hour.

Table 2.17-3. Vehicle Trip Generation Rates

Quantity (Vehicles)	Daily Trips	Quantity (Vehicles)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Staff								
Administration Building	6	12	6	0	6	0	6	6
Educational/Recreational Building	10	20	10	0	10	0	10	10
Multi-Purpose Building	2	4	2	0	2	0	2	2
Warehouse Building	8	16	8	0	8	0	8	8
Corpsmembers								
Crew Vehicles	12	24	0	12	12	12	0	12
Other								
Visitors	10	20	10	0	10	0	10	10
Deliveries	5	5	0	0	0	0	0	0
Total		101	36	12	48	12	36	48

Source: Fehr & Peers, 2019

Project Trip Distribution and Assignment

Project trip distribution refers to the directions of approach and departure that vehicles would take to access and depart the site. The geographic distribution of trips generated by the Project is dependent on characteristics of the street system serving the Project Site, the level of accessibility of routes to and from

the Proposed Project Site, and the locations of employment and residential areas to which patrons of the Project would be drawn. The trip distribution was finalized through conversations with City staff to ensure that the assumptions made were realistic and vetted. The resulting trip distribution percentages are shown on *Figure 4.17-3. Project Trip Distribution*. Project trips were then assigned to the roadway network based on the directions of approach and departure, as presented on *Figure 4.17-4. Peak Hour Traffic Volumes and Lane Configurations – Project Trip Assignment.*

Existing Plus Project Conditions

This section evaluates potential offsite transportation impacts under Existing Plus Project conditions. The Project traffic volumes were added to the existing traffic volumes to estimate the Existing Plus Project traffic volumes, as shown on *Figure 4.17-5. Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project.*

Intersection Operations

Existing Plus Project intersection operations were evaluated using the methods described above. The Existing Plus Project analysis results are presented in *Table 4.17-4*. As shown, all study intersections, except for the intersection of Main Street and Baechtel Road in the PM peak hour, currently operate within the LOS standards set by the City of Willits in both the AM and PM peak hours.

The addition of Project traffic would increase delay at all study intersections. In the *Existing* and *Existing Plus Project* conditions, all intersections except for the intersection of Main Street and Baechtel Road in the PM peak hour operate at an acceptable LOS. The addition of Project traffic further degrades the intersection of Main Street and Baechtel Road at LOS F in the PM peak hour.

Table 4.17-4. Existing Plus Project Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Existing		Existing Plus Project	
			Delay[2]	LOS	Delay[2]	LOS
Main Street & Baechtel Road	TWSC	AM PM	29 61	D F	32 100	D F
Baechtel Road & East Hill Road	TWSC	AM PM	13 12	B B	14 13	B B
Haehl Creek Drive & East Hill Road	TWSC	AM PM	12 13	B B	13 13	B B
Future Project Driveway & East Hill Road	TWSC	AM PM	- -	- -	9 9	A A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.
TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
For TWSC intersections, delay is reported for the worst movement.
Source: Fehr & Peers, 2019

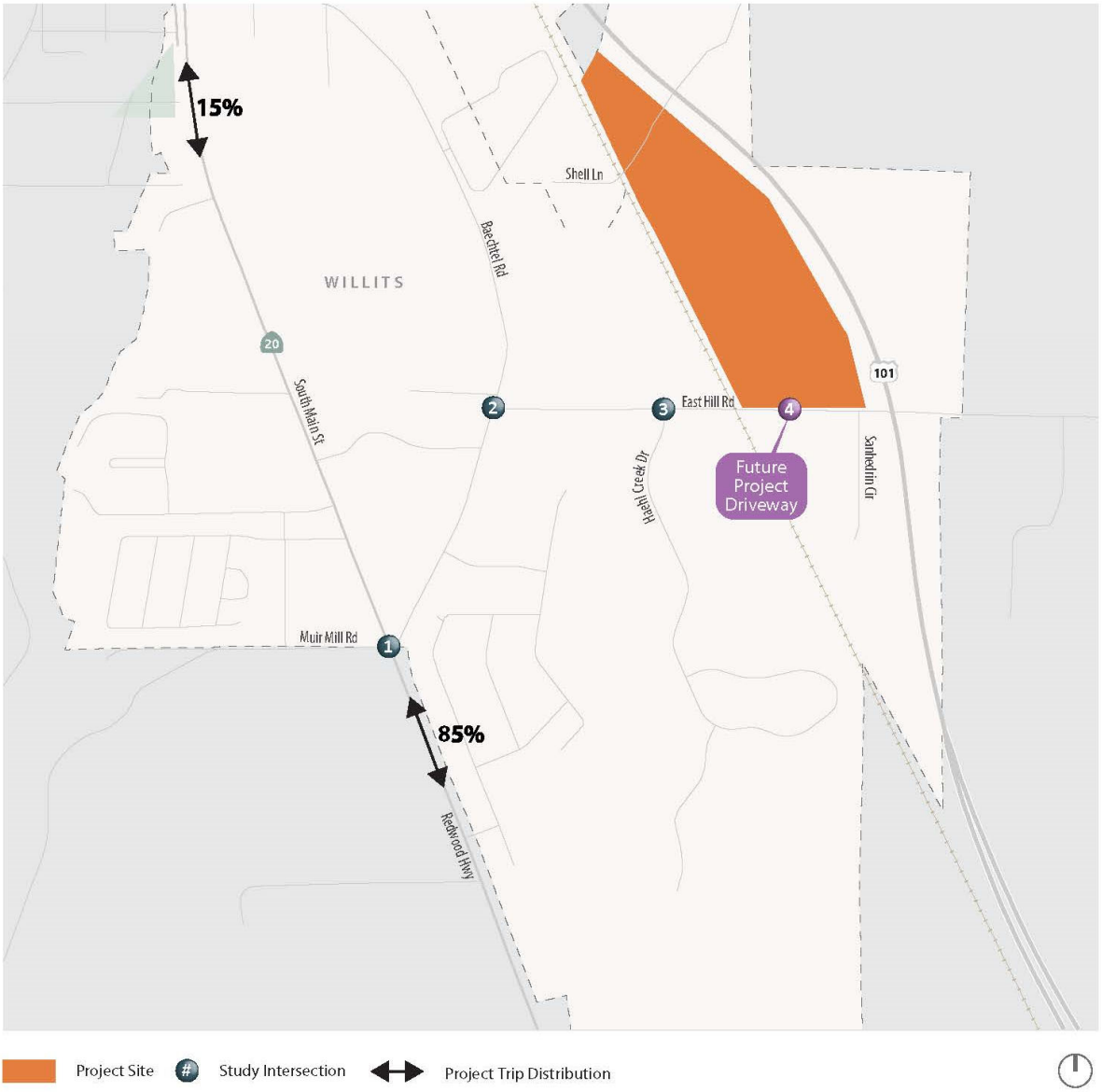
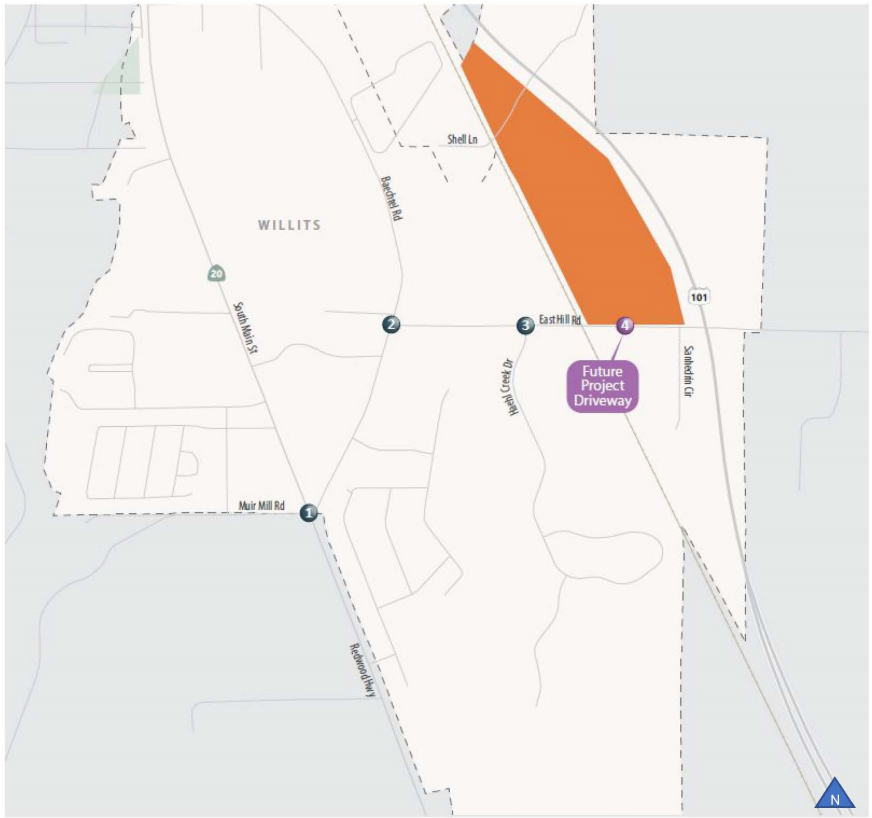


Figure 4.17-3. Project Trip Distribution



Project Site # Study Intersection

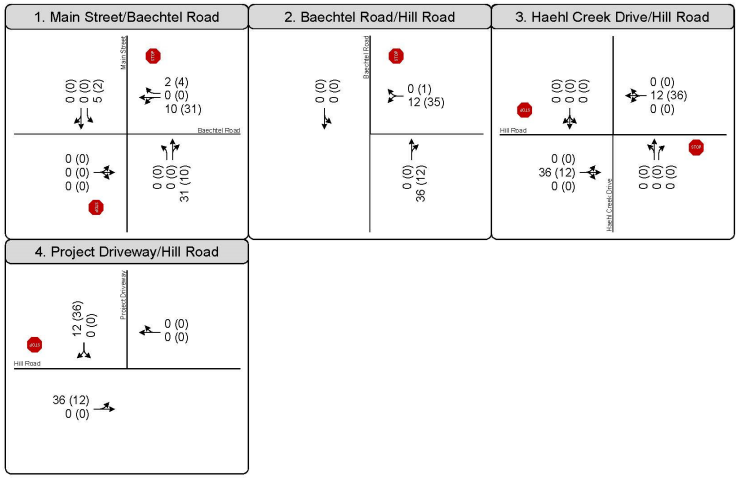


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Figure 4.17-4. Peak Hour Traffic Volumes and Lane Configurations

Project Trip Assignment

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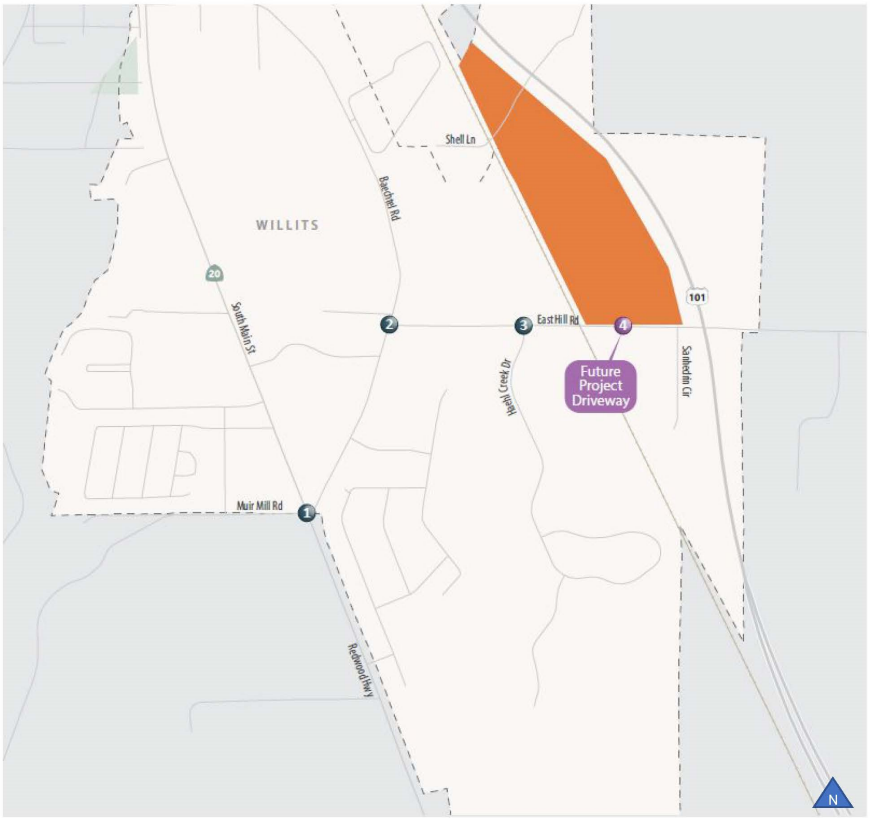

Project Site # Study Intersection

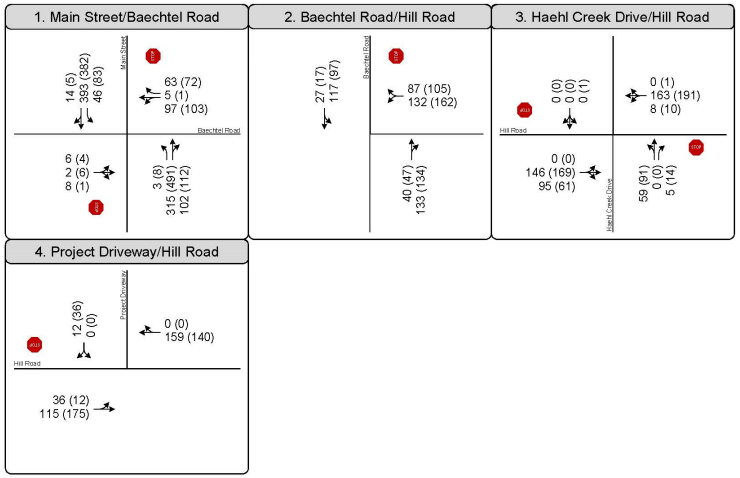

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Figure 4.17-5. Peak Hour Traffic Volumes and Lane Configurations

Existing Plus Project

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Signal Warrants

To assess the need for signalization of stop-controlled intersections, the CA MUTCD presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant were used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. *Table 4.17-5* summarizes the signal warrant analysis. Signal warrant analysis is presented in traffic study Appendix D (see *Appendix C*). The intersection at Main Street and Baechtel Road meets peak hour signal warrants in Existing and Existing Plus Project conditions.

Table 4.17-5. Existing Plus Project Conditions Peak Hour Signal Warrant Analysis

Intersection	Peak Hour	Existing	Existing Plus Project
		Warrant Met?	Warrant Met?
Main Street & Baechtel Road	AM PM	Yes Yes	**Yes** **Yes**
Baechtel Road & East Hill Road	AM PM	No No	No No
Haehl Creek Drive & East Hill Road	AM PM	No No	No No
Future Project Driveway & East Hill Road	AM PM	- -	No No

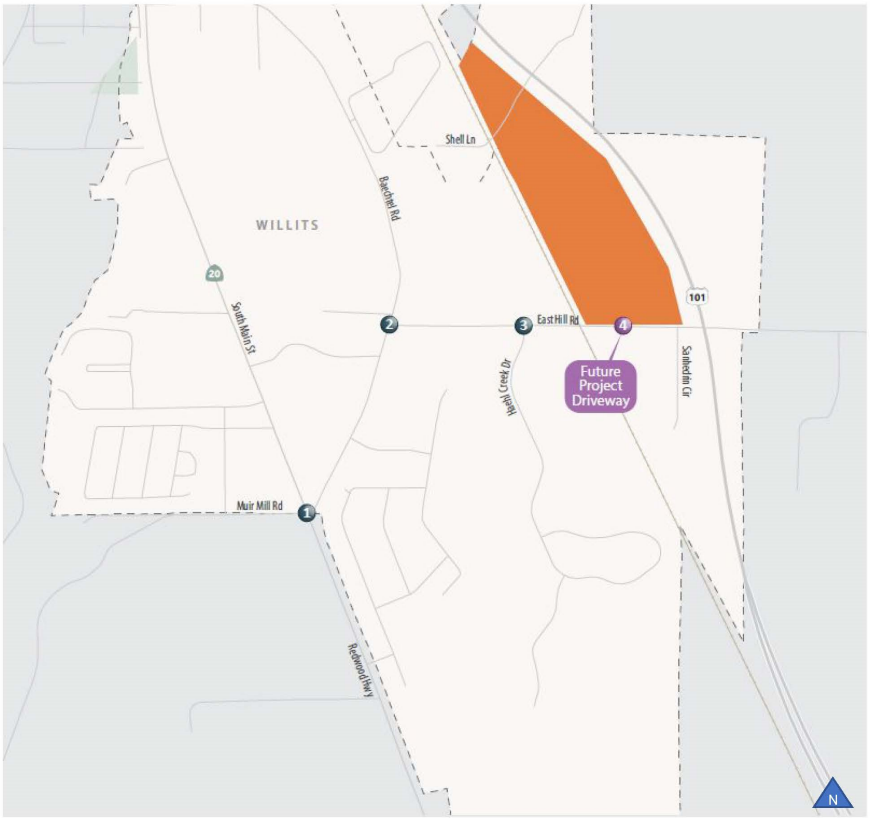
Note: **Bold** text indicates significant impact.
Source: Fehr & Peers, 2019

Opening Year 2023 Traffic Conditions

This section discusses the Opening Year (2023) traffic conditions both without and with the Project.

Opening Year (2023) conditions were developed using an ambient growth rate of one percent per year. The Opening Year traffic volumes are presented in *Figure 4.17-6. Peak Hour Traffic Volumes and Lane Configurations - Opening Year (2023).*

The Project volumes were added to the Opening Year (2023) without Project traffic volumes to represent Opening Year Plus Project conditions, as presented on *Figure 4.17-7: Peak Hour Traffic Volumes and Lane Configurations - Opening Year Plus Project (2023).*



Project Site # Study Intersection

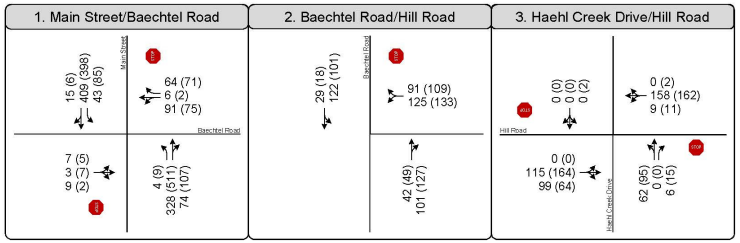


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Figure 4.17-6. Peak Hour Traffic Volumes and Lane Configurations

Opening Year (2023)

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Intersection Operations

For the analysis of cumulative conditions, peak hour factors, pedestrian, bicycle and heavy vehicle volumes were left unchanged from the analysis of Existing Condition. Peak hour factors were set to 0.92. The same signal timings were used for all Existing and Opening Year analyses. The analysis results presented in *Table 4.17-6* are based on the traffic volumes presented in *Figure 4.17-6. Peak Hour Traffic Volumes and Lane Configurations Opening Year (2023)* and *Figure 4.17-7. Peak Hour Traffic Volumes and Lane Configurations Opening Year Plus Project (2023)*. In the Opening Year without Project conditions, the intersection of Main Street and Baechtel Road operates at an unacceptable LOS in the PM peak hour. In the Opening Year with Project conditions, the intersection of Main Street and Baechtel Road operates at an unacceptable LOS in both the AM and PM peak hours. The addition of Project traffic degrades the intersection of Main Street and Baechtel Road from LOS D to LOS E in the AM peak hour and increases the delay at LOS F in the PM peak hour.

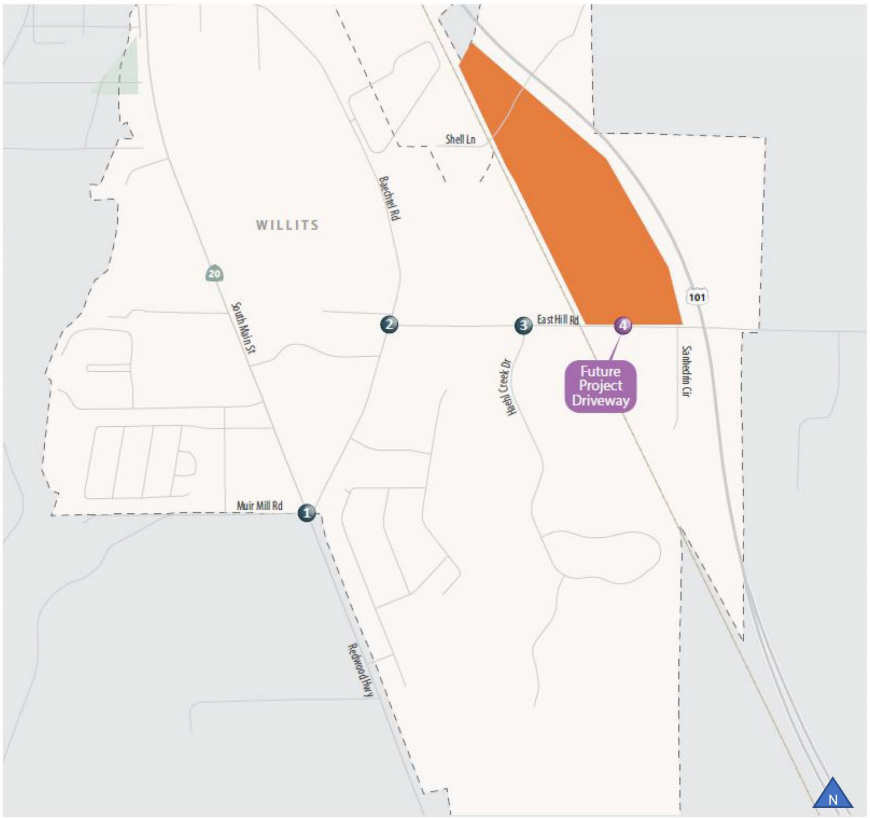
Table 4.17-6. Opening Year Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Opening Year		Opening Year Plus Project	
			Delay[2]	LOS	Delay[2]	LOS
Main Street & Baechtel Road	TWSC	AM PM	33 **73**	D **F**	**38** **126**	**E** **F**
Baechtel Road & East Hill Road	TWSC	AM PM	13 13	B B	14 14	B B
Haehl Creek Drive & East Hill Road	TWSC	AM PM	12 13	B B	13 14	B B
Future Project Driveway & East Hill Road	TWSC	AM PM	- -	- -	9 9	A A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.
TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
For TWSC intersections, delay is reported for the worst movement.
Source: Fehr & Peers, 2019

Signal Warrants

To assess the need for signalization of stop-controlled intersections, the CA MUTCD presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant was used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. *Table 4.17-7* summarizes the signal warrant analysis. Signal warrant analysis is presented in traffic study Appendix D (see *Appendix C*). The intersection at Main Street and Baechtel Road meets peak hour signal warrants in Opening Year and Opening Year Plus Project conditions, and thus meets one significant impact criteria.



Project Site # Study Intersection

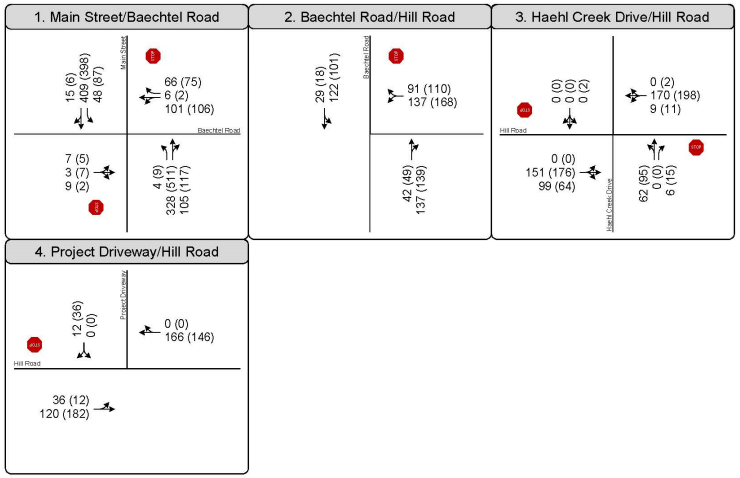


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Figure 4.17-7. Peak Hour Traffic Volumes and Lane Configurations

Opening Year Plus Project (2023)

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Table 4.17-7. Opening Year Plus Project Conditions Peak Hour Signal Warrant Analysis

Intersection	Peak Hour	Opening Year Warrant Met?	Opening Year Plus Project Warrant Met?
Main Street & Baechtel Road	AM PM	Yes Yes	**Yes** **Yes**
Baechtel Road & East Hill Road	AM PM	No No	No No
Haehl Creek Drive & East Hill Road	AM PM	No No	No No
Future Project Driveway & East Hill Road	AM PM	- -	No No

Note: **Bold** text indicates significant impact.
Source: Fehr & Peers, 2019

Proposed Project Access and Circulation

This section provides an assessment of parking supply, site access and internal circulation for vehicles, pedestrians, bicycles, and transit based on the conceptual site plan presented Project Description *Figure 2.3-4*.

Parking Assessment

The site plan denotes five parking areas throughout the Project Site totaling 115 parking stalls.

- 22 parking stalls at the admin building
- 23 parking stalls for visitors/staff
- 22 parking stalls for visitors
- 48 parking stalls for corps member parking

There are also two designated loading areas at the warehouse and at the multiuse building.

The Project is expected to include 26 staff, 10 visitors, and five deliveries on a typical day. One hundred Corpsmembers will live onsite full-time; it is expected that most Corpsmembers will not have personal vehicles parked onsite. There will be 12 crew vehicles parked onsite. The expected daily parking demand is summarized below in *Table 4.17-8***.**

Table 4.17-8. Expected Parking Demand

	Expected Daily Parking Demand
Staff	26
Corpsmembers	20
Crew Vehicles	12
Visitors	10
Deliveries	5
Total	73

Source: Fehr & Peers, 2019

The proposed parking supply provides more parking than needed to meet the expected parking demand. Therefore, the proposed parking supply is considered sufficient for the Project.

Vehicle Access and Circulation

Vehicular access to the Project is provided on East Hill Road. An internal roadway connects the various parking areas and buildings throughout the Project Site. The proposed access and circulation are sufficient for the proposed use.

Bicycle Access and Circulation

Baechtel Road provides Class II bike facilities. Haehl Creek Drive, East Hill Road, and Main Street do not provide bicycle facilities within the Project Area. The City proposes future Class II facilities on East Hill Road and Main Street and Class III facilities on Haehl Creek Drive (*City of Willits Bicycle and Pedestrian Specific Plan*, 2009). In addition, the City is planning a future Class I multi-use trail along the closed Northwestern Railroad right-of-way located adjacent the Project Site's western boundary. This trail would provide access from the Project Site to downtown Willits significantly improving bicycling opportunities from the Project Site. Bicycle parking is not currently identified on the site plan but could be integrated within the COMET building area where Corpsmembers would reside.

Transit Access and Circulation

Three transit routes serve Willits. All three routes have stops through Willits on Main Street. The closest bus stops to the Project Site are located on Main Street approximately 300 feet north of the intersection of Main Street and Baechtel Road, nearly a mile from the Project Site. Given the nature of the Willits Center operations, it is not expected that Corpsmembers, staff, or visitors would typically use transit service to access the Project Site.

4.17.2 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

As discussed above, the Main Street and Baechtel Road intersection operates at a deficient LOS F during the PM peak hour prior to the addition of Project traffic in the existing condition. The addition of Project traffic would worsen operations and increase delay. The intersection meets peak hour signal warrants under both Opening Year and Opening Year Plus Project conditions. Based on the significance criteria identified above, which specifies an acceptable LOS D for unsignalized intersections, this is considered a significant impact. Implementation of Mitigation Measure **TRANS-1** would reduce this impact to less than

significant. With implementation of Mitigation Measure **TRANS-1**, the Main Street/Baechtel Road intersection would operate at LOS A in both the AM and PM Peak Hours as shown in *Table 4.17-9*.

Table 4.17-9. Opening Year Plus Project with Mitigation Peak Hour Intersection LOS Summary

Intersection	Peak Hour	Control[1]	Opening Year		Opening Year Plus Project		Control[1]	Opening Year Plus Project with Mitigation	
			Delay[2]	LOS	Delay[2]	LOS		Delay[2]	LOS
Main Street & Baechtel Road	AM PM	TWSC	33 73	D F	38 126	D F	Signal	6.0 6.3	A A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.
TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
For TWSC intersections, delay is reported for the worst movement.
Source: Fehr & Peers, 2019

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒

No Impact.

The provisions of CEQA Guidelines § 15064.3 which addresses analysis of Vehicle Miles Traveled does not apply statewide until July 1, 2020. Until then, the CEQA Lead Agency has discretion to continue to use a LOS analysis to determine transportation system impacts. The CCC, the Lead Agency for this Project, has elected to use a LOS analysis; consequently, there would be no impact. No Mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

Less than Significant.

The onsite circulation pattern is adequate for the proposed use and the site plan provides separate pathways for pedestrian circulation. The Project would not introduce transportation hazards and related impacts are less than significant. No mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Result in inadequate emergency access?	☐	☐	☒	☐

Less than Significant.

The Project includes a secondary emergency vehicle access from East Hill Road at location approximately 175 feet west of the main entrance. Impacts are less than significant, and no mitigation is required.

4.17.3 Mitigation Measures

TRANS-1: Pay Fair Share for Signal Improvements. The Project applicant shall pay their fair share toward the installation of a traffic signal at the intersection of Main Street and Baechtel Road.

4.18 Tribal Cultural Resources

The following analysis of the potential environmental impacts related to Tribal Cultural Resources (TCRs) is derived primarily from the following sources and agencies:

- California Native American Heritage Commission (NAHC) Sacred Lands File Search, April 15, 2019.
- *Cultural Resource Inventory and Extended Phase I Report for the Ukiah CCC Training Center Relocation Project* (ECORP Consulting, Inc. 2019).
- Ethnographic overview of the Northern Pomo by Bean and Theodoratus (1978) and an introduction to the ethnographic Pomo by McLendon and Oswalt (1978).

4.18.1 Environmental Setting

Ethnographic, Religious, and Cultural Context

Ethnographically, the Project Area is the tribal territory of the Northern Pomo, one of seven linguistic divisions of the Pomo language. The Northern Pomo territory includes 22 miles of coastline and extends 50 miles inland to the northwestern shores of Clear Lake. The Northern Pomo territory includes land surrounding the present-day towns of Fort Bragg, Noyo, Mendocino, Ukiah, Willits, and Calpella. This large territory includes oak-pine and hardwood forests, chaparral and coastal prairie vegetation communities, and contains the north coast redwood and coastal cypress and pine forests (Kroeber 1925).

The Northern Pomo did not have a word for themselves, as opposed to other native speakers of other dialects or languages, but a general term for "people" could be derived from an element incorporated into some tribelet names based on location: Chamay (McClendon and Oswalt 1978:280). Culturally, linguistically, and socially, the Western and Northeastern Pomo were grouped into 25 separate politically distinct groups called tribelets. Other linguistic divisions include the Southern, Kashaya, Central, and Northern Pomo (Bean and Theodoratus 1978).

The Northern Pomo lived on the coast and inland. They seasonally exploited marine resources in the summer such as abalone, seaweed, kelp, mussels, and sea fish. Most inland villages were permanent settlements with larger populations than those on the coast but were bound closely with the smaller villages by trade and kinship ties (Bean and Theodoratus 1978). The Northern Pomo shared the Ukiah Valley with the Central Pomo. Pinoleville Rancheria, located north of the Project Area on Ackerman Creek, was inhabited mainly by Native Americans from Potter Valley. The Rancheria was originally located in the

south-central part of Ukiah but was later reestablished in 1893 to its site on Ackerman Creek (Kroeber 1925). The Pinoleville Rancheria was terminated in 1966.

A Pomo tribelet was composed of one or more bilaterally related extended kinship groups, ranging in size from 100 to 2,000 people. Each had a headman or minor chief; these men together composed the ruling elite of the individual tribelets and functioned as council. The tribelets were independent political units but sometimes did confederate. On the Russian River, a confederation of several linked tribelets combined to control 16 miles of the river plus the adjacent land and hills. The Pomo maintained regular military trade alliances among themselves and with other groups. Kin groups were the most significant social unit, united by the ghost and secret societies. However, non-kin friendships were maintained by a system of reciprocal gift exchange (Bean and Theodoratus 1978).

The Pomo ranked individuals by family, background, wealth, and individual achievement. Special offices were inherited, and other social differences were based on membership in the secret societies, such as the Kuksu cult, which had a select membership. Ritual leaders and chiefs ranked the highest, with shamans and sucking doctors right below them. Professions required a system of apprenticeship and mentorship, and included craft specialties, chieftainships, and shamanistic roles. The most dramatic social role was that of the bear doctor, which required long, specialized training and harsh ritual restrictions (Bean and Theodoratus 1978).

The Pomo had clearly defined concepts of land use rights. Some areas were commonly controlled, and some areas were the right of one family or kin group. Individuals owned all property manufactured by themselves and were free to do with it what they were inclined. The Pomo used stone mortar and pestle to grind foods and herbs, and knives and axes were made from obsidian or chert. Bone was used to make awls and fishhooks. The Pomo also made intricately woven, waterproof baskets with designed geometric patterns and adornments of feathers, shells, and beads (Bean and Theodoratus 1978).

Acorns were a staple food, and other vegetal foods included buckeye, seeds from at least 15 different grasses, and edible greens were eaten directly or dried and stored. Grasshoppers, caterpillars, and larvae were also eaten, and these foods were gathered regularly. The taking of game was one of the most important duties of men; it required careful preparation and observance of special regulations. Group hunting was either done by a single hunter with a dear-head mask and disguise assisted by several drivers and packers, or by erecting a brush fence and through which the herd was driven. The bow and arrow was typically used to hunt game. Hunters maintained a careful seasonal balance between the size of the herd and available vegetation to keep the herd from straying out of the territory (Bean and Theodoratus 1978).

Clothing was worn by men for ritual, utilitarian, or social purposes; otherwise they were nude most of the time. When weather called for it, mantles of tule bark were worn, while men of great wealth wore animal skins. Women always wore a skirt of some kind, in the inland area made mostly of shredded redwood bark. During cold weather, both sexes wore rabbit-skin blankets. Feather robes were sometimes worn in ceremony, but usually only by wealthy men. Personal adornments such as bracelets, belts, and neckbands were made of shell beads, bone, and feathers, and were indicators of wealth and social positions (Bean and Theodoratus 1978).

The Pomo made three types of houses: temporary shelters, dwelling houses, and subterranean houses. Small family houses were built of redwood bark slabs with the ground around the house surrounded by a brush fence for drying acorns. Multi-family communal structures built along the Russian River were circular or L-shaped and constructed of brush, grass, or tule. Semi subterranean structures served two main functions: a smaller men's sweathouse, and a larger assembly house for dancing and ceremonies. A special earth-covered lodge, 40-60 feet in diameter, was used only for Ghost Dance ceremonies (Bean and Theodoratus 1978).

The life cycle of the Pomo began at birth, although Pomo practiced various forms of birth control, such as abortion and *coitus interruptus*; these practices were supported by the idea that a fetus and baby immediately after birth were not alive. Birth usually took place within a special shelter in which the new baby and mother remained for six weeks after delivery. Children were named around age one after deceased kinsmen, but only the father and mother called the child by their name; others used kinship terms or nicknames. Boys were taught certain songs during childhood until age 12, when they were presented with a net and bow and arrow. A girl's first menses was the most important event in her life, and was marked by confinement to the menstrual hut, dietary restrictions, and instruction on her new role as a woman. Marriages were arranged by the two families, but the prospective marriage individuals were always consulted. A girl was not usually forced into marriage, but she could not marry against the wishes of her family. The groom's family gave gifts to the bride's family, and after they were wed, the couple moved into the groom's house. Divorce was simple and involved little ceremony (Bean and Theodoratus 1978).

The first contact between Pomo and non-Native Americans may have occurred as early as 1579 when Sir Francis Drake visited the bay believed to be just south of their territory. By the late 1700s, European trade goods were arriving from San Francisco, and the Spanish were raiding Pomo territories for potential converts to their mission at the Presidio. By 1817, Mission San Rafael was established, extending Spanish influence into Pomo territory, and in 1823 Mission San Francisco de Solano extended influence in to Wappo territory. At least 600 Pomo were baptized at these two missions (Bean and Theodoratus 1978:299). About the same time, Russians began exploiting Pomo territory on the coast and established Fort Ross in Kashaya territory in 1811. As opposed to the forced missionization of native people by the Spanish, the Russians contracted with the Pomo for use of their area and employed tribal members as agricultural workers. Many Pomo adopted Russian customs and occasionally intermarried with Russians (Bean and Theodoratus 1978).

4.18.2 Regulatory Setting

Assembly Bill 52

Effective July 1, 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the PRC defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
    c. a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of an Historical Resource under CEQA, a TCR may also require additional consideration as an Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Summary of Tribal Consultation

AB 52 consultation requirements went into effect on July 1, 2015 for all projects that have not already published a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration or published a Notice of Preparation of an EIR (Section 11 [c]). The lead agency (CCC) is responsible for carrying out AB 52 consultation. At this time, CCC has not received any formal written requests from any tribes for AB 52 consultation on CCC projects. RESD, acting as CCC's CEQA support staff, coordinated with the City of Willits and determined that the City had received written requests to receive project notices from three California Native American tribes who identified themselves as being traditionally and culturally affiliated with the lands subject to City of Willits jurisdiction: the Coyote Valley Band of Pomo Indians, the Pinoleville Pomo Nation, and the Sherwood Valley Band of Pomo Indians. Although, the State is not subject to local land use authority, RESD decided to initiate consultation with the three tribes as the Project is located within the City Limits of Willits.

On September 4, 2019, RESD determined that it had a complete project description and they were ready to begin review under CEQA. RESD mailed notification letters to each of the three tribes on September 4,

2019. In accordance with PRC § 21080.3.1(d) of the PRC, responses to the offer to consult were requested by October 4, 2019.

No tribes requested consultation on the project under AB 52.

Tribal Cultural Resources

In the absence of tribes wishing to consult, information about potential impacts to TCRs was drawn from: 1) the results of a search of the Sacred Lands File of the NAHC; 2) existing ethnographic information about pre-contact lifeways and settlement patterns; 3) information on archaeological site records obtained from the California Historical Resource Information System (CHRIS); and 4) 2019 archaeological test excavations within the Project Area.

Sacred Lands File Search

A search of the NAHC Sacred Lands File was requested on April 15, 2019. The NAHC responded on April 30, 2019 that the Sacred Lands File search was negative. The NAHC included a list of suggested tribal representatives to contact who may have more information. The Coyote Band of Pomo Indians, Pinoleville Pomo Nation, and Sherwood Valley Band of Pomo Indians were included on the list and offered an opportunity to consult, as summarized above.

Ethnographic Information

The ethnographic information reviewed for the Project, including ethnographic maps, does not identify any villages, occupational areas, or resource procurement locations in or around the current Project Area (Bean and Theodoratus 1978). The Project Area contains a tributary to Haehl and Davis creeks, and Haehl Creek runs along the northern boundary of the Project Area. According to McLendon and Oswalt (1978), the nearest Northern Pomo village is *na·bó,* which is located approximately 1.5 miles south of the Project Area.

CHRIS Records Search

A search of the CHRIS records for a 0.5-mile radius surrounding the Project Area revealed 15 previous cultural resources investigations included the area, and almost all of the Project Area has been subject to previous cultural survey. The previous studies identified six pre-contact sites such as lithic scatters and habitation sites within the record search radius. Two pre-contact sites were near the Project Area.

2019 Archaeological Test Excavations

On July 22, 23, and 24, 2019, ECORP conducted limited subsurface presence/absence testing along the eastern Project boundary to determine whether subsurface deposits associated with adjacent archaeological sites are present within the boundaries of the Project Area. ECORP hand-excavated 24 surface scrapes and STPs and passed all recovered sols through 1/8-inch mesh to assess whether subsurface deposits extend into the Project Area.

In sum, 92 percent of the STPs and 95 percent of the volume excavated during testing were negative for cultural materials. Three lithic artifacts were discovered during testing from two separate STPs located far apart. They were discovered in a matrix of the same sandy loam soils that yielded negative results across

the remaining 95 percent of the excavation. No midden or other culturally identifiable soils were observed at either location. Therefore, these artifacts were determined not to be part of a continuous, intact archaeological deposit such as two adjacent archaeological sites, nor part of a newly-discovered archaeological deposit; rather, they were likely removed from their original context and represent isolated finds.

Significance Criteria

AB 52 established that a substantial adverse change to a TCR has a significant effect on the environment. In assessing substantial adverse change, the CCC must determine whether the Project will adversely affect the qualities of the resource that convey its significance. The qualities are expressed through integrity. Integrity of a resource is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, § 4852(c)]. Impacts are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, §15064.5(a)]. Accordingly, impacts to a TCR would likely be significant if the project negatively affects the qualities of integrity that made it significant in the first place. In making this determination, the CCC need only address the aspects of integrity that are important to the TCR's significance.

4.18.3 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated

The searches of the Sacred Lands File by the NAHC failed to identify TCRs or sacred lands within or immediately adjacent to the Project Area. The ethnographic record for the area indicates that known village sites and camps were located primarily along the coastline and inland, also along the shores of Clear Lake, and along major rivers such as the Russian River to exploit water resources. Although no major rivers are within the Project Area, Haehl and Davis creeks are in close proximity. The CHRIS records search indicated several pre-contact native American sites exist in the vicinity of the Project Area. Subsurface testing at the Project Site resulted in the discovery of three pre-contact isolated artifacts although 95 percent of the excavated volume was negative for cultural material. Therefore, evidence suggests that there is a moderate potential for TCRs inside the Project Area.

No TCRs were identified within the Proposed Project Area and the Proposed Project would not cause a substantial adverse action to a known TCR. However, impacts to unknown TCRs that may be discovered during Project construction is considered a potentially significant impact. Implementation of Mitigation Measure **CUL-1** would reduce this impact to less than significant.

4.18.4 Mitigation Measures

CUL-1: Implement Measures to Protect Unanticipated Cultural Resources Discoveries.

See *Section 4.5 Cultural Resources* for the full text of Mitigation Measure **CUL-1**.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

Water Service

Water service to the Project Site will be provided by the City of Willits. The Water Department currently has storage capability of 3.5 million gallons per day and uses 2.2 million gallons per day (City of Willits, 2019).

Information from City of Willits General Plan

The City of Willits supplies its own water by storing rainfall in two local reservoirs, one half a mile upstream of the other on Davis Creek. Morris Dam and Centennial Dam were completed in 1927 and 1990, respectively. The two reservoirs supply potable water for the City during summer months while Davis Creek supplies the water during winter months. A new water treatment facility and inlet structure were constructed in 1989 which eliminated the water quality problems that occurred during times of drought.

Morris Dam is located five miles southeast of the City. The concrete dam impounds water from the Davis Creek watershed, which covers a 5.5-square-mile area. The watershed area is not incorporated, but it is owned by the City. The watershed is subject to the effects associated with trespassers, wild game, limited cattle grazing, limited timber harvesting, and the Northwestern Pacific Railroad corridor.

Morris Reservoir has a surface area of roughly 60 acres. It would have a capacity of 735-acre feet but due to siltation over the last 60+ years, 100-acre feet have been displaced. Silt displacement of water has occurred at a rate of 0.2 percent per year totaling nearly 13 percent over the life of the reservoir to date (1992). At this rate, it would take an additional 200 years to fill the reservoir 50 percent. Dredging is not possible at this time due to prohibitive costs and water quality concerns regulated by the CDFW.

Wastewater

Information from City of Willits General Plan

The City will provide wastewater collection and treatment for the Project Site. Willits is served by its own wastewater treatment facility, which has a dry weather capacity of 1.3 million gallons per day. Present usage amounts to 850,000 gallons per day, including 150,000 gallons per day from Brooktrails Township. By contract, Brooktrails is entitled to 33 percent of the City's treatment capacity. The City's wastewater collection system serves residential, commercial and industrial customers within the City limits. The Willits Wastewater Treatment Plant is located on Sewer Plant Road in Willits, California.

Solid Waste

Solid Wastes of Willits provide refuse collection service for the city. Willits is served by a local landfill, which receives 8,200 tons of solid waste annually, including trash from Willits, Covello, and surrounding unincorporated areas. Privately-owned Willits Transfer Station is located at 350 Franklin Street, Willits, California, and is available as additional refuse disposal for residents.

Electricity

Electric service would be provided by PG&E.

Proposed Project

Information from Design Project Summary and Narratives Report by NM&R & Associates, Inc. (NMR) (August 7, 2019)

Onsite improvements will include the installation of support utilities including sanitary sewers, domestic and irrigation water, storm drain, etc. Connection to the existing water supply will occur from East Hill Road in accordance with City standards. Water service and plan review would be provided by the City of Willits Water Department. Water Department review would include installation and testing inspection. The onsite domestic water line size and connection point would determine in consultation with the City and would be a "combination service" for fire, domestic and irrigation purposes.

Sanitary sewer services and connection would similarly be installed along East Hill Road with service provided by the City of Willits Wastewater Department. Onsite sanitary sewer and wastewater design would be installed in accordance with City standards and reviewed by City Wastewater Department. A 6-inch sanitary sewer lateral would be installed onsite and connected to an existing public manhole along East Hill Road.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐

Less than significant.

Per the Schematic Design Project Summary and Narratives Report by NMR, the City of Willits has agreed to provide water service and wastewater conveyance and treatment for the Proposed Project. The Project would not result in the construction or relocation of new utility infrastructure having significant environmental effects. A less than significant impact would occur. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Less than significant.

According to the Project's Schematic Design LEED & Sustainability Analysis Report prepared by NMR (NMR, August 7, 2019), the Project would create an annual water demand between 314,539 and 1,273,247 gallons per year. As outlined in the NRM report, the City has indicated sufficient supply capacity exists to serve Project demands. The City has also preliminarily determined that the existing water main in East Hill Road is sufficient to serve the Project and should capacity in that line be obligated to other projects before construction on the site, a secondary water line can be extended to the Project Site from the west. A less than significant impact would occur. No mitigation required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Less than significant.

The City has agreed to collect and treat wastewater for the Proposed Project. Per Schematic Design Project Summary and Narratives Report by NMR, wastewater collection would be accomplished by connecting to manholes in East Hill Road or manholes in the railroad right of way located adjacent and west of the Project Site. A less than significant impact would occur. No mitigation is required.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Less than significant.

Construction activities associated with the Project are not expected to generate substantial amounts of solid waste. The minimal amount of solid waste generated would not exceed the capacity of local infrastructure/landfills and would not impair the attainment of solid waste reduction goals. Related impacts are less than significant. No mitigation required.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Less than Significant Impact.

The California Integrated Waste Management (CIWM) Act requires every county to adopt an integrated waste management plan that describes county objectives, policies, and programs relative to waste disposal, management, sources reduction, and recycling. Mendocino County Department of Planning and Building Services requires a Construction and Demolition Waste Management plan that is consistent with the CIWM Act. The disposal of solid waste due to construction activities will comply with all federal, state, and local statues and regulations. Impacts to solid waste statues and regulations will be less than significant. No mitigation required.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

The Proposed Project is not located within a heavily wooded area nor is it surrounded by wildlands or forests. The Project is bound to the east by a U.S. Highway 101, to the south by East Hill Road, to the west by Northwestern Pacific Railroad, and to the north by Haehl Creek.

According to the Draft Fire Hazard Severity Zones in Local Responsibility Area map published by CAL FIRE, the Project Site is located in a moderate fire hazards severity zone of local responsibility in Mendocino County.

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

No impact.

As stated above, the Project is in an area zoned as moderate fire hazard on the CAL FIRE Severity - Local Responsibility Area map. Therefore, construction of the Proposed Project will not impair or conflict with an adopted emergency response or evacuation plan for areas in high fire hazard severity zones. There would

be no impact. While there would be no impact, it's worth noting the facility would house 100 Corpsmembers trained and equipped to respond to both natural and manmade disasters (including fire) which should aid emergency evacuation plans.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

No impact.

See above discussion. The Proposed Project is not located in or near an area zoned as a very high fire hazard severity zone. The impact is less than significant, and no mitigation is necessary.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

No impact.

See above discussion. The Proposed Project is not located in or near an area zoned as a very high fire hazard severity zone. Additionally, as described in the Project Description, the Proposed Project will have several fire prevention measures including buildings designed for durability and wildfire resistance with exterior material such as noncombustible fiber cement siding with adhered masonry stone veneer wainscots. Roofing material will be asphalt composed shingle on the main roofs with lower roofs being metal standing seam. Landscaping will also be designed to emphasize safety and security as well as fire resistance. Therefore, no impact will occur. No mitigation necessary.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

No impact.

Please see above discussion. The proposed project is not located in or near an area zoned as a very high fire hazard severity zone. Therefore, no impact will occur. No mitigation necessary.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

As described in *Section 4.4 Biological Resources* of this document, biological resources on the site that could be affected by the Proposed Project include special-status plants and wildlife resources, and wetland and riparian habitat. Mitigation Measures **BIO-1** through **BIO-7** would be implemented to ensure all potential impacts to sensitive species and their habitats, including wetland and riparian areas are mitigated to less than significant levels.

As indicated in *Section 4.5, Cultural Resources* and *4.18 Tribal Cultural Resources*, the Project is expected to avoid direct impacts to known cultural and tribal resources. Further, implementation of Mitigation Measure **CUL-1** will ensure potential impacts to unknown cultural and tribal resources are reduced to less-than-significant levels. Should any cultural or tribal cultural resources or human remains be encountered during construction, all construction activities would be halted, and a professional

archeologist consulted. Similarly, implementation of Mitigation Measure **GEO-1** would ensure potential impacts to unknown paleontological resources are mitigated to less than significant.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐

Less than Significant with Mitigation Incorporated.

Except for transportation, all impacts were found to be less than significant (including air quality and greenhouse gas). As discussed in *Section 4.17 Transportation*, opening year cumulative condition (2023) traffic impacts were determined to be significant for the intersection of Main Street and Baechtel Road. However, this impact can be reduced to less than significant with implementation of Mitigation Measure **TRANS-1**. Therefore, cumulative impacts would be reduced to less than significant with mitigation incorporated.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Less than Significant.

Potential impacts to human beings include increases in ambient noise during construction and increases in air emissions including PM (dust) during construction. These impacts were found to be temporary and less than significant. Implementation of the Project's Mitigation Monitoring Program will ensure compliance with related measures and would minimize impacts to the greatest extent feasible.

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SECTION 6.0 BIBLIOGRAPHY

America Community Survey (ACS) – Census Bureau (2017). https://www.census.gov/en.html. Accessed October 2019.

AOU. 1983. Check-list of North American birds. 6th ed. American Ornithol. Union, Washington, D.C.

Bean, Lowell John and Dorothea Theodoratus. 1978. Western Pomo and Northeastern Pomo. In *Handbook of North American Indians, Vol. 8: California*, edited by R. F. Heizer, pp. 289-305. Smithsonian Institution, Washington, D.C.

Bidwell, John. 1971. Sutter's Fort. In *California Heritage: An Anthology of History and Literature*, edited by John and Laree Caughey, pp. 134-138. F. E. Peacock Publishers, Itasca, Illinois. Revised Edition.

Bildstein, K.L., and K. Meyer. 2000. Sharp-shinned Hawk (*Accipiter striatus*). *The Birds of North America, No. 482* (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

BLM. 2019. Bureau of Land Management, General Land Office Records. Electronic document, http://www.glorecords.blm.gov/. accessed 11 April 2019.

Bryant, W. A. (1993). "Bartlett Springs Fault Zone, Lake and Mendocino Counties, California." California Division of Mines and Geology Fault Evaluation Report FER-236, scale 1:24,000. NR: CDMG.

Bryant, W.A. and E.W. Hart. (2007). Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act (with Index to Earthquake Fault Zones Maps): California Division of Mines and Geology Special Publication 42. NR: California Department of Conservation, CGS.

California Department of Water Resources. 2016. California's Groundwater *Bulletin 118*. https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118. Accessed June 2019.

California Fish and Game Commission. 2017. *Evaluation of the Petition from the Center for Biological Diversity to List the Foothill Yellow-Legged Frog (RANA BOYLII) as threatened Under the California Endangered Species Act*. Available online: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=164644&inline. Accessed June 2019.

CaliforniaHerps.com. 2019. A guide to the amphibians and reptiles of California. Red-bellied Newt (*Taricha rivularis).* Available online: http://www.californiaherps.com/index.html. Accessed June 2019.

Caltrans. 2019. Structure and Maintenance & Investigations, Historical Significance–Local Agency Bridges Database March 2019. http://www.dot.ca.gov/hq/structur/strmaint/hs_local.pdf. Accessed 11 April 2019.

_____. 2018. Structure and Maintenance & Investigations, Historical Significance–State Agency Bridges Database September 2018. http://www.dot.ca.gov/hq/structur/strmaint/hs_state.pdf. Accessed 11 April 2019.

_____. 2013. *Transportation and Construction Vibration Guidance Manual*.

California Energy Consumption Data Management System. 2019. Website: Electricity and Natural Gas Consumption by County. http://www.ecdms.energy.ca.gov/.

California Spanish Missions. 2011. California Missions Timeline. California Spanish Missions. Electronic document, http://www.californiaspanishmissions.net/california-missions-timeline.html. Accessed 9 February 2017.

CARB. 2017. 2017 Mobile Source Emissions Inventory (EMFAC2017) Model.

Castillo, Edward D. 1978. The Impact of Euro-American Exploration and Settlement. In *Handbook of North American Indians, Volume 8, California*, edited by R.F. Heizer, pp. 99-127. Smithsonian Institution, Washington D.C.

CDFW. 2019a. Rarefind 5. Online Version, commercial version. California Natural Diversity Database. The Resources Agency, Sacramento. Accessed May 2019.

_____. 2019b. Biogeographic Information and Observation System (BIOS). Available at: https://www.wildlife.ca.gov/Data/BIOS. Accessed May 2019.

_____. 2018. *California Natural Communities List*. Available at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List#natural. Accessed May 2019.

City of Willits. 1992. City of Willits General Plan Revision, Vision 2020.

_____. 1979. Municipal Code.

City of Willits General Plan EIR. 1992. Pages 4-5.

Climate Registry. 2016. <Table 4.6-4>

CNPS. 2019. Inventory of Rare and Endangered Plants in California (online edition, v8-02). California Native Plant Society. Sacramento, CA. Available online: http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi. Accessed May 2019.

Comrack, L.A. 2008. Yellow-breasted Chat (*Icteria virens*). Pp. 351 – 358 in W. D. Shuford and T. Gardali, Eds. *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California*. Studies of Western Birds No. 1. 450 pp.

DOC Farmland Mapping & Monitoring Program. 2017a. https://www.conservation.ca.gov/dlrp/fmmp. Accessed October 2019.

_____. 2017b California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed October 2019.

_____. 2010 Mendocino County. https://www.conservation.ca.gov/dlrp/fmmp/Pages/Mendocino.aspx. Accessed October 2019.

ECORP Consulting, Inc. 2019a. *Biological Resources Assessment for the California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)*. Mendocino County, California. Prepared for State of California Department of General Services Real Estate Services Division. DRAFT.

_____. 2019b. *Cultural Resources Inventory and Extended Phase 1 Ukiah CCC Training Center Relocation Project*. Mendocino County, California. Prepared for the California Conservation Corps.

Fehr & Peers. 2019. *California Conservation Corps Facility Willits Center Draft Transportation Impact Analysis. October.*

FHWA. 2008. Roadway Construction Noise Model.

_____. 2011. *Effective Noise Control During Nighttime Construction*. Available online at: http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.

Galehouse, J.S. (1995). "Theodolite Measurement of Creep Rates on San Francisco Bay Region Faults." Technical Report to U.S. Geological Survey, Reston, Virginia, under Contract 1434-94-G2420. Reston, VA:USGS.

_____. 2002. *Data from Theodolite Measurements of Creep Rates on San Francisco Bay Region Faults, California: 1979-2001.* U.S. Geological Survey Open-file Report 02-225. NR:USGS.

Heath, S.K. 2008. Yellow Warbler (*Dendroica petachia*). Pages 332 - 339 in W.D. Shuford and T. Gardali, Eds. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds No. 1. 450 pp.

IPCC. 2014. Climate Change 2014 Synthesis Report: Approved Summary for Policymakers. http://www.ipcc.ch/.

_____. 2013. Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

Jennings, M. R., and M. P. Hayes. 1994. *Amphibian and reptile species of special concern in California*. A Report to the California Department of Fish and Game, Rancho Cordova, California.

Kroeber, A. L. 1925. Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington.

Kyle, Douglas. 2002. *Historic Spots in California*. Stanford University Press. Stanford, California.

LSA Associates, Inc. 2018. *Preliminary Delineation of Potential Waters of the U.S. for the CCC Ukiah Residential Center*

Marshall, James W. 1971. The Discovery. In *California Heritage: An Anthology of History and Literature*, edited by John and Laree Caughey, pp. 191-192. F. E. Peacock Publishers, Itasca, Illinois. Revised Edition.

McLendon, Sally and Robert L. Oswalt. 1978. Pomo: An Introduction. In *Handbook of North American Indians, Vol. 8: California*, edited by R. F. Heizer, pp. 274-288. Smithsonian Institution, Washington, D.C.

Mendocino County. 2019. Hazardous Materials Management Plan.

https://www.mendocinocounty.org/government/health-and-human-services-agency/envirnomental-health-eh/hazardous-materials. Accessed October 2019.

_____. 2016. Mendocino County Operational Area Emergency Operations Plan. Available online at: https://www.mendocinocounty.org/government/executive-office/office-of-emergency-services/plans-and-publications. Accessed October 2019.

_____. 2014. Mendocino County Multi-Hazard Mitigation Plan. Available online at: Mendocino County Multi-Hazard Mitigation Plan

_____. 2009. *Mendocino County General Plan*. Available online at: https://www.mendocinocounty.org/government/planning-building-services/plans/mendocino-county-general-plan

Mendocino County Airport Land Use Commission. 1996. *Ells Field Airspace Plan*.

Natural History Museum of Los Angeles County. October 3, 2019. "Paleontological resources for the proposed California Conservation Corps – Willits Center Project, ECORP Project # 2018-116.005, in the City of Willits, Mendocino County, project area."

NM&R Associates, Inc. August 7, 2019. *Schematic Design Project Summary & Narratives*.

NPS. 2019. *National Register Information System Website*. Electronic document, http://www.nr.nps.gov/nrloc1.htm. Accessed 11 April 2019.

NRCS. 2019a. Soil Survey Geographic (SSURGO) Database for Madera County, California. U.S. Department of Agriculture. Available Online: https://gdg.sc.egov.usda.gov/.

_____. 2019b. National Hydric Soils List. Available Online: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed May 2019.

OHP. 2019. *Office of Historic Preservation California Historical Landmarks Website*, Electronic document. http://ohp.parks.ca.gov/?page_id=21387. Accessed 11 April 2019.

_____. 2012. Directory of Properties in the Historic Property Data File for Mendocino County. On file at NWIC, California State University, Sonoma, California.

_____. 1996. California Historical Landmarks. California Department of Parks and Recreation, Sacramento, California.

Reilly, S.B., D. M. Portik, M. S. Koo, and D. B. Wake. 2014. Discovery of a New, Disjunct Population of a Narrowly Distributed Salamander (Taricha rivularis) in California Presents Conservation Challenges. Journal of Herpetology: September 2014, Vol. 48, No. 3, pp. 371-379.

Robertson, D. B. 1998. *Encyclopedia of Western Railroad History*. Caldwell, Idaho: The Caxton Printers.

Robinson, W. W. 1948. *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads.* University of California Press, Berkeley.

Sawyer, J., Keeler-Wolf T., Evens J. M. 2009. *A Manual of California Vegetation*, Second Edition. Sacramento, California: California Native Plant Society.

SCAQMD. 1992. 1992 Federal Attainment Plan for Carbon Monoxide.

SHN. 2018. *Phase 1 Environmental Site Assessment for the Bemcore Property, East Hill Road, Willits, California APNs 007-160-18 and 007-100-28*. Prepared for California Department of General Services Real Estate Services Division. Reference 418043. May 2018.

Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company. Vista, California. 342 pp.

Stebbins, R. C. 2003. *Western Reptiles and Amphibians*. Houghton-Mifflin Co., Boston, New York. 533 pp.

_____. 1985. *A Field Guide to Western Reptiles and Amphibians*. Houghton Mifflin Company, Boston, MA.

Stebbins, R. C. and S. M. McGinnis. 2012. *Field Guide to Amphibians and Reptiles of California* (revised edition). University of California Press, Berkeley.

Taylor, C. L., and F. H. Swan. (1986). "Geological assessment of the seismic potential of the Bartlett Springs shear zone for Scott Dam, Lake County, California." Final report by Geomatrix Consultants for Pacific Gas and Electric Company, 51 p. NR:Geomatrix.

Thompson, T.H. and A.A. West. 1880. *History of Sacramento County*. Reproduced by Howell-North, 1960, Berkeley.

U.S. Climate Data. Climate Willits – California. https://www.usclimatedata.com/climate/willits/california/united-states/usca1242. Accessed October 2019.

USEPA. 1995; 2015. AP-42 Fifth Edition Compilation of Air Emissions Factors.

USGS. 2019. USGS Water Resources Links for: 05120203 – Eel. https://water.usgs.gov/lookup/getwatershed?05120203. Accessed October 2019.

Verner, J. and A. S. Boss. 1980. California wildlife and their habitats: western Sierra Nevada. U. S. Forest Service General Technical Report PSW-37.

WBWG. 2019. Western Bat Species Accounts. Available online at: http://wbwg.org/western-bat-species/. Accessed May 2019.

WEAL. 2000. *Sound Transmission Sound Test Laboratory Report No. TL 96-186*.

Williams, D.F. 1986. *Mammalian Species of Special Concern in California*. State of California Department of Fish and Game, Wildlife Management Division. Sacramento, California. 112pp.

Zeiner, D. C. 1990. California's Wildlife, Volume III, Mammals. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, California.

Zeiner, D. C., William F. Laudenslayer, Jr., Kenneth E. Mayer, and Marshall White (eds). 1988. *California's Wildlife, Volume I, Amphibian and Reptiles*. California Statewide Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

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SECTION 7.0 LIST OF APPENDICES

Appendix A – Air Quality and Greenhouse Gas Assessment

Appendix B – Biological Resources Assessment

Appendix C – Transportation Impact Analysis

Appendix D – Phase 1 Environmental Site Assessment

Appendix E – Noise Impact Assessment

Appendix F – Total Construction-Related and Operational Gasoline Usage

APPENDIX A

Air Quality and Greenhouse Gas Assessment

Air Quality & Greenhouse Gas Assessment

California Conservation Corps, Willits Center Project

Willits, California

Prepared For:

State of California Department of General Services
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707 Third Street, 4th Floor
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October 2019

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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LIST OF ACRONYMS AND ABBREVIATIONS

µg/m^3	Micrograms per cubic meter
AB	Assembly Bill
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District's
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCC	California Conservation Corps

CEQA	California Environmental Quality Act
CH_4	Methane
City	City of San Juan Capistrano
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalents
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas
IPCC	Intergovernmental Panel on Climate Change
kW	Kilowatt
kWh	Kilowatt hour
LOS	Level of service
MCAQMD	Mendocino County Air Quality Management District
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen dioxide
NOx	Nitrogen oxide
N_2O	Nitrous oxide
OPR	Office of Planning and Research
O_3	Ozone
PM_{10}	Coarse particulate matter
$PM_{2.5}$	Fine particulate matter
Ppm	Parts per million
RCPG	Regional Comprehensive Plan and Guide
ROG	Reactive organic gas
Project	California Conservation Corps (CCC) Willits Center Project
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Governments
SIP	State Implementation Plan
SoCAB	South Coast Air Basin
SO_2	Sulfur dioxide
SRA	Source receptor area
TACs	Toxic air contaminants
USEPA	U.S. Environmental Protection Agency

1.0 INTRODUCTION

This report documents the results of an assessment of both air quality and greenhouse gas (GHG) emissions completed for the California Conservation Corps (CCC) Willits Center Project, which includes the development of a new CCC operations center in the Town of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment. This assessment was prepared using methodologies and assumptions recommended in the rules and regulations promulgated by the Mendocino County Air Quality Management District (MCAQMD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations.

1.1 Project Location and Description

The proposed Project is located on a 27.7-acre site is located at 440 East Hill Road in Willits, California (see Figure 1. *Project Vicinity* and Figure 2. *Project Location)*. The Project site is comprised of two parcels located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. The site is currently undisturbed and undeveloped. The site is generally level with an approximately ten-foot change in elevation from south to north. The site supports natural habitats, including valley oak riparian and bent grass meadows. Drainages and tributaries, some of which are jurisdictional wetlands, are scattered throughout the Project site.

Existing adjacent uses include undeveloped lands to the north, East Hill Road followed by office to the south (Adventist Health Home Care Services), the Northwestern Pacific Railroad corridor followed by a warehouse use to the west, and Highway 101 to the east. The area is surrounded by rolling hills and the coastal mountain range.

The Project site is designated by the Town of Willits as Industrial General (M-G) and is zoned by the Town of Willits Zoning Code as Industrial Park (IP) and Heavy Industrial (MH). According to the Willits General Plan, the M-G designation is the land classification for land which is suited for a variety of industrial operations. Specific industrial uses allowed in M-G zone are defined by the Town's zoning code (Willits 1992). The IP is the zone utilized for a contiguous group of lots that are planned for industrial uses, having continuity of design and function and uniform or integrated standards of development established by contract, covenant or deed restriction. The MH zone is intended to apply to areas devoted to normal operations of industries, subject only to such regulations as are needed to control nuisances and protect surrounding areas (Willits 2019).

Proposed Project Components

The proposed CCC Willits Center Project would be constructed on 27.7 acres. The proposed Project would include approximately 64,238 square feet (sf) of total building space, 35,000 sf of solar panels, and 179,000 sf of paved concrete area (see Figure 3. *Project Site Plan*). The Center's 64,238 sf of total building space would consist of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a

hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area. The facility would be designed based on the prototype and CCC's residential needs to house 120 permanent corps members. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

The Project components are explained below:

- **Building 1: 3,363 square foot administrative building.** This building would be in the southwest portion of the site near the Center's main entrance to facilitate visitor interactions. The administration building includes a reception area, offices for the District and Business Services Directors and staff, a conference room, work stations, records room, and restroom.
- **Building 2: 2,908 square feet of dormitories.** This building would consist of a row of six 2,908-square foot dormitories.
- **Building 3: 3,213 square foot COMET building.** This building would include 2 large men's and women's sleeping quarters with bunk beds for up to 36 people and accompanying restrooms/showers. Each dormitory would provide sleeping quarters for up to 16 Corpsmembers in three 4-person and two 2-person rooms and include bathroom and shower facilities.
- **Building 4: 13,604 square foot warehouse and work area.** This building would be located at the rear (north end) of the site. The warehouse would include a shop manager's office, a conservation work room with computer work stations, a laundry facility, a woodshop, and chain saw cleaning room. The warehouse would also serve as the receiving location for conservation program deliveries and supplies. A delivery dock would be located on the building's north end with ample adjacent warehouse and secure storage areas, including individual storage units for up to 6 Corpsmember crews.
- **Building 5: 14,656 square foot Multi-Purpose Building with Kitchen and Dining Room.** This building would be located to the northeast of the administration building, separated a parking lot. The multi-purpose building includes a 4,000-square foot multi-use court with associated storage areas and rest rooms, and a 714 square-foot kitchen and dining hall with seating for 120 persons. A delivery dock would be located on the building's northeast corner.
- **Building 6: 200 square foot Hazardous Materials Storage Building.** This small building will accommodate trash receptacles and a hazardous materials storage area.
- **Building 7: 6,268 square foot Education Building.** The education building would include 3 offices, 3 training rooms, a computer lab, library, restrooms, storage and support facilities.
- **Building 8: 5,498 square foot Recreation Building.** The recreation building would feature a large activity area and lounge. Also included are weight, T.V., reading, music, laundry, and gaming rooms, restrooms and storage and support facilities.

- **Solar Photovoltaic Array: 35,000 square feet (0.8 Acres).** 35,000 square feet of solar panels with a 488-kW rating would be installed to generate supplemental electrical power for the Center would be located north of the emergency staging area. The array would be comprised of 35,000 square feet of ground mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually.
- **Paved Area 1: 101,000 square feet of Paved Transportation Surfaces.** This portion of paved surfaces would be comprised of roads, sidewalks, driveways, and parking areas.
- **Paved Area 2: 78,000 square feet of other concrete paved areas.** This portion of paved surfaces would be for additional services, staging areas and connecting walkways.

Table 1-1 below summarizes the square footage for each of the proposed Project components:

Table 1-1. Project Statistics

Proposed Buildings/Facilities	Square Footage/Acreage
Project Site	27.7 acres
Administration Building	3,363 square feet
Housing/Dormitories	2,908 square feet (6 total dormitories)
COMET Building	3,213 square feet
Warehouse with Work Area	13,604 square feet
Multi-Purpose Building with Kitchen and Dining Room	14,656 square feet
Hazardous Materials Storage Building	200 square feet
Education Building	6,268 square feet
Recreation Building	5,498 square-feet
Solar Photovoltaic Array	Approximately 35,000 square feet or 0.8 Acres (488 kW rating)
Paved Transportation Surfaces (roads, sidewalks, driveways, and parking areas)	101,000 square-feet
Other Concrete Paved Areas (for additional service, staging areas and connecting walkways)	78,000 square feet
Total building square footage: 64,238 SF (approximately)	

Construction Phasing

Project construction activities are anticipated to begin in 2021, with an anticipated facility operational date in late 2023. Construction activities would take place between 7:00 a.m. and 7:00 p.m. Monday-Friday and, if necessary, between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. Construction would consist of the following primary phases.

- **Phase 1: Mobilization and Site Layout**. The construction team would set up the construction site, including perimeter fencing, and implement initial construction best management practices (BMPs) (such as fencing environmentally sensitive areas).

- **Phase 2: Civil Site Preparation, Road Installation, and Receipt of Construction Materials**. The construction team would conduct minor grading to smooth and contour the site, construct access roads, install underground utilities, and prepare building sites. Materials needed for project construction would be received and stored onsite within construction staging areas.
- **Phase 3: Building Construction**. Buildings and special use areas such as the solar array and exercise trail located on the west side of the property would be constructed.
- **Phase 4: Landscaping, Signage and Demobilization Activities**. Landscaping and finishing work such as signage and fences would be installed. The construction team would conduct post-construction site restoration, including site cleanup activities, removal of all temporary facilities and fences, and implementation of post-construction BMPs.

Project grading is expected to be a balanced onsite. No import or export of soil is anticipated. Scrapers would cut and transport onsite soil within the Project site. Finish grading would be achieved by motor graders (blades) and skip loaders. Material excavation and compaction activities would be required primarily to install roads to meet fire and safety requirements. Throughout grading operations, water trucks would provide water to the site to achieve the proper moisture content for compaction and dust suppression. During times of excessive wind, grading would be stopped to control dust generation.

Underground utilities would be installed using standard underground utility trenching methods. Trenches would be excavated by hand or by a backhoe or similar excavation equipment. Underground utility placement would begin immediately following trench excavation, followed by back fill and compaction.

Location: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\location_vicinity\Ukiah_LVn_20190822_CEQA.mxd (JDS) JSwager 8/22/2019

Map Date: 8/22/2019

Service Layer Credits: Sources: Esri, USGS, NOAA

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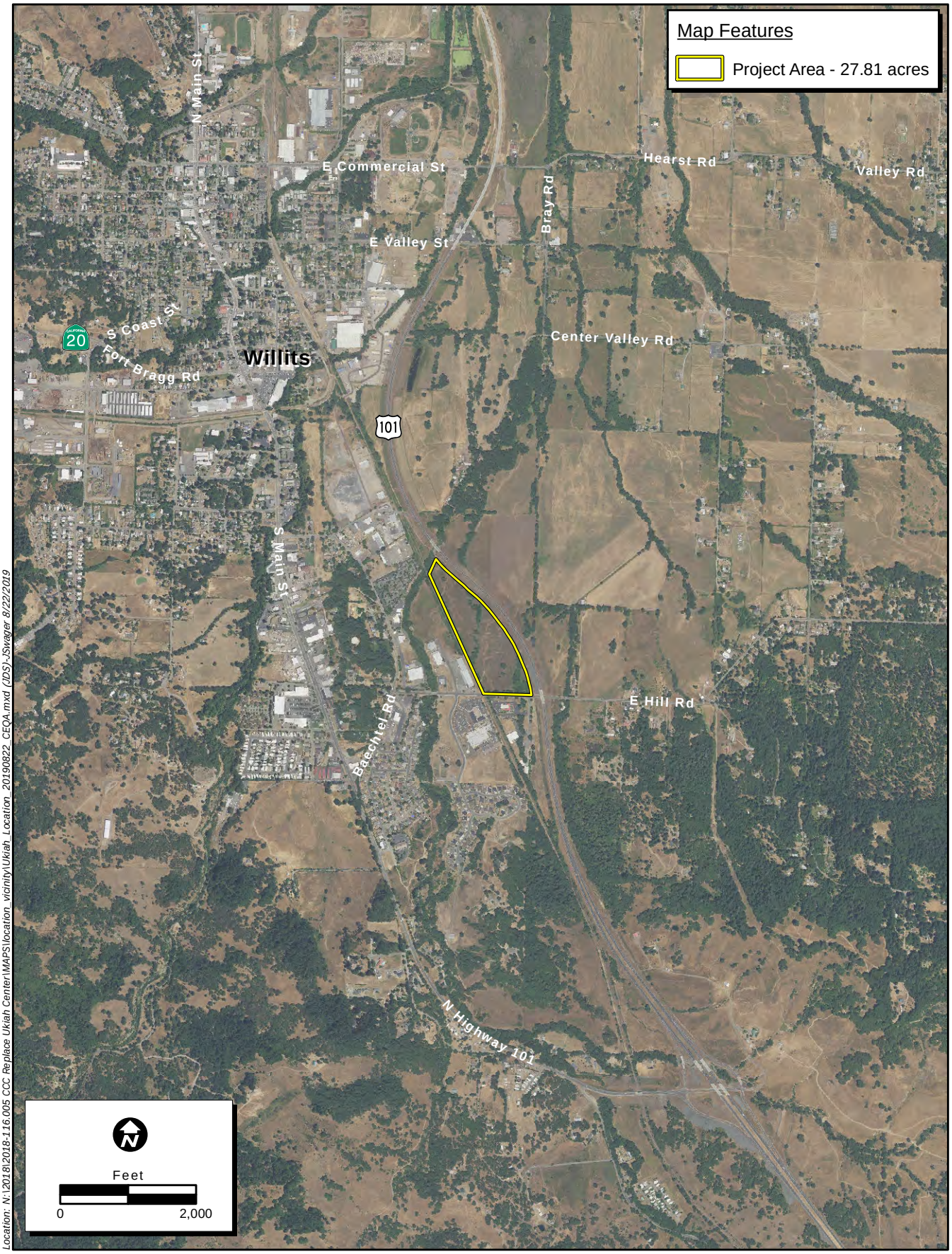
Figure 1: Project Vicinity

2018-116.005 CCC Willits Center



Location: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\location_vicinity\Ukiah_Location_20190822_CEQA.mxd (JDS)-JSwager 8/22/2019

Map Date: 8/22/2019
Sources: ESRI, NAIP (2018), LSA

Figure 2: Project Location

2018-116.005 CCC Willits Center

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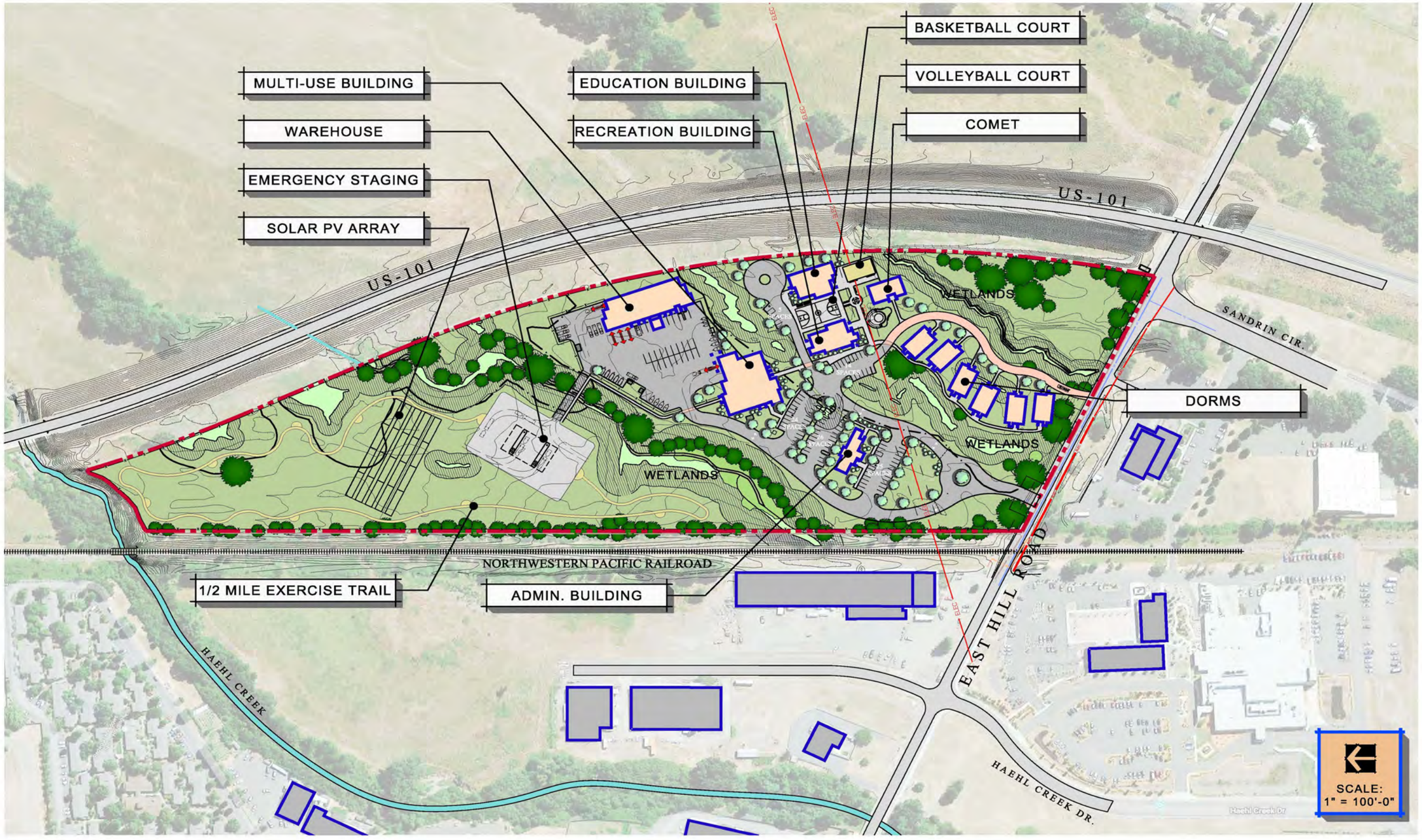

SCHEMATIC DESIGN
AUGUST 7, 2019

C.C.C.
WILLITS RESIDENTIAL CENTER

SITE PLAN 9

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Figure 1: Willits Residential Center Site Plan

2018-116.005 CCC Willits Center

2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Mendocino County Air Quality Management District (MCAQMD), which encompasses the Project site, pursuant to the regulatory authority of the MCAQMD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project area.

2.1.1 North Coast Air Basin

The California Air Resources Board (CARB) divides the State into air basins that share similar meteorological and topographical features. Mendocino County lies in the North Coast Air Basin (NCAB), which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma counties. Mendocino County lies entirely within the Coast Range Geomorphic Province of California with a western limit marked by the Pacific Ocean. The province is characterized by a series of northwest-trending mountain ranges and intervening canyons or valleys. Summit elevations are typically within the range of 2,000 to 4,000 feet, with the highest peaks along the northeastern margin of the county reaching elevations near 7,000 feet. Differences in elevation range from sea level along the coast to approximately 7,000 feet in a few interior mountain locations.

2.1.2 Temperature and Precipitation

The eastern portion of Mendocino County is characterized by warm, dry summers and cool, wet winters. While the Pacific Ocean moderates temperature, maritime influences in the eastern valleys are lower. Climate becomes more continental due to the distance from the ocean and the mountain ridges that block the inland flow of marine air. In summer, the daily fluctuation of temperature is more than 40°F (degrees Fahrenheit) in the valleys. In the eastern portion of the county, precipitation falls primarily from October through April. Mean precipitation totals are as high as 60 inches at the Russian River in the south and range from 45 to 70 inches at the Eel River. Precipitation is lowest in the southern valleys and highest in the northern mountains.

2.1.3 Wind

Prevailing winds are from the northwest, with local variations due to topography. During daylight hours, up-canyon local winds predominate. In the evening hours, down-canyon winds along watercourses predominate.

2.1.4 Inversions

The entire county is affected by inversion layers, where warm air overlays cooler air. Inversion layers trap pollutants close to the ground. In the winter, these pollutant-trapping, ground-based inversions are formed during windless, clear-sky conditions, as cold air collects in low-lying areas such as valleys and canyons. Mendocino County has a high frequency of both ground-based and elevated inversions. During the winter months, strong inversions that persist for several days at a time are common.

2.1.5 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and State governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O_3), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO_2	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O_3	Formed by a chemical reaction between reactive organic gases and nitrogen oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM_{10} & $PM_{2.5}$	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO_2	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

2.1.6 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs

are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

2.1.7 Ambient Air Quality

Ambient air quality at the Project site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Willits - 125 East Commercial Street monitoring station, located approximately 1.7 miles southeast of the Project site, is the closest station to the site. The Willits - 125 East Commercial Street monitoring station monitors ambient concentrations of O_3, $PM_{2.5}$, PM_{10}. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered "generally" representative of ambient concentrations in the development area.

Table 2-2 summarizes the published data concerning O_3, $PM_{2.5}$, PM_{10} since 2016 from the Willits - 125 East Commercial Street monitoring station for each year that the monitoring data is provided. O_3, PM_{10} and $PM_{2.5}$ are the pollutants most potently affecting the Project region.

Table 2-2. Summary of Ambient Air Quality Data

Pollutant Standards	2016	2017	2018
O_3			
Max 1-hour concentration (ppm)	*	*	*
Max 8-hour concentration (ppm) (State/federal)	* / *	* / *	* / *
Number of days above 1-hour standard (State/federal)	* / *	* / *	* / *
Number of days above 8-hour standard (State/federal)	* / *	* / *	* / *
PM_{10}			
Max 24-hour concentration (µg/m^3) (State/federal)	* / *	* / *	* / *
Number of days above 24-hour standard (State/federal)	* / *	* / *	* / *
$PM_{2.5}$			
Max 24-hour concentration (µg/m^3) (State/federal)	19.1 / 19.1	75.2 / 75.2	172.1 / 172.1
Number of days above federal 24-hour standard	0	6.1	11.4

Source: CARB 2019
µg/m^3 = micrograms per cubic meter; ppm = parts per million
* = Insufficient data available

The U.S. Environmental Protection Agency (USEPA) and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards

(NAAQS) (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the NCAB is included in Table 2-3.

The determination of whether an area meets the State and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the State and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the State standards of the same pollutant. The region is designated as a nonattainment area for the State PM_{10} standard yet is in attainment for State standards for all other pollutants. By federal standards, the NCAB is unclassified or in attainment for all pollutants (CARB 2018).

Table 2-3. Attainment Status of Criteria Pollutants in the North Coast Air Basin

Pollutant	State Designation	Federal Designation
O_3	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified/Attainment
$PM_{2.5}$	Attainment	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Unclassified/Attainment

Source: CARB 2018

2.2 Regulatory Framework

2.2.1 Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation.

Table 2-3 above lists the federal attainment status of the NCAB for the criteria pollutants.

2.2.2 State

California Clean Air Act

The California CAA allows the State to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and State air pollution control programs within California, including setting the California ambient air quality standards. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The federal CAA (and its subsequent amendments) requires the State to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the national ambient air quality standards revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The *2005 Particulate Matter Attainment Plan* (2005 PM Plan) constitutes the portion of the SIP addressing air quality in Mendocino County. Since the county is classified attainment for all air pollutants under federal standards, the 2005 PM Plan addresses attainment of the State PM_{10} standard, the only pollutant standard that the county is classified nonattainment. The 2005 PM Plan is a regional blueprint for achieving the PM_{10} standard and healthful air in the county. It contains cost-effective particulate matter control measures as well as a schedule for their implementation. It includes cost-effective particulate matter control measures necessary to attain the California PM_{10} standard at the earliest practicable date, as well as developed emissions inventories and associated emissions projections for the region showing a downtrend for the pollutant.

2.2.3 Local

MCAQMD

The MCAQMD is the air pollution control agency for Mendocino County which includes Del Norte, Humboldt, Trinity, Mendocino, and northern Sonoma counties, including the Project site. The agency's primary responsibility is ensuring that the federal and State ambient air quality standards are attained and maintained in the NCAB. The MCAQMD is responsible for permitting and inspection of stationary sources, enforcement of regulations (including setting fees, levying fines, and enforcement actions), and ensuring that public nuisances are minimized.

MCAQMD Regulation 4, *Particulate Matter Reduction Measures*, would apply to construction of the Project. This Regulation contains general limitations associated with air emission source operations including those relating to public nuisance, visible emissions, particulate matter emissions, and fugitive dust.

The following is a list of other noteworthy MCAQMD rules that are required of construction activities associated with the proposed Project:

- **Rule 1-400(a) Public Nuisance –** This is a general requirement that is applicable to odors, as well as other air contaminants. Specifically, the rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or that cause or have a natural tendency to cause injury or damage to business or property.
- **Rule 1-410 Visible Emissions –** This applies to any source at the facility and limits visible emissions to no more than 20 percent opacity for more than a 3-minute period in any one hour.
- **Rule 1-420 Particulate Matter –** This rule imposes particulate matter emission rate limitations and is applicable to combustion and non-combustion sources. Combustion sources do not include mobile sources. The proposed Project will have both combustion and non-combustion sources that would be subject to these requirements.
- **Rule 1-430 Fugitive Dust Emissions –** This rule requires that (a) all reasonable precautions be taken to prevent particulate matter from becoming airborne and (b) specifies airborne dust control measures that would be required. The Project would be subject to these requirements.

In addition, there are other MCAQMD rules and regulations, not detailed here, which may apply to the proposed Project but are administrative or descriptive in nature. These include rules associated with fees, enforcement and penalty actions, and variance procedures.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would:

- conflict with or obstruct implementation of any applicable air quality plan;
- result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- expose sensitive receptors to substantial pollutant concentrations; or
- result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

MCAQMD Thresholds

The significance criteria established by the applicable air quality management or air pollution control district (MCAQMD) may be relied upon to make the above determinations. The MCAQMD has identified significance thresholds for use in evaluating project impacts under CEQA. Significance thresholds used to evaluate air quality impacts from this Project are described in Table 2-4.

Table 2-4. MCAQMD Significance Thresholds – Pounds per Day

Criteria Pollutant and Precursors	Construction Indirect Source Average Daily Emissions (lb/day)	Operational Source Average Daily Emissions (lb/day)
ROG	54	180
NO_x	54	42
PM_{10}	82	82
$PM_{2.5}$	54	54
Fugitive Dust (PM_{10}/$PM_{2.5}$)	Best Management Practices	Same as above
Local CO[1]	None	125 tons per year

Source: MCAQMD 2010
Notes: [1]MCAQMD's indirect permitting rules allow 125 ton/year of CO.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by CARB and the MCAQMD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a Statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were primarily calculated using CalEEMod model defaults for Inland Mendocino County; however, the length of construction is based on estimates provided by the Project applicant. As previously described, construction of the Proposed Project is anticipated to start in 2021 and has an estimated end date in 2023. Operational air pollutant emissions were based on the Project site plans and the estimated traffic trip generation rates from Fehr and Peers (2019).

Impact Analysis

Construction Emissions Analysis

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive particulate matter emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction-generated emissions associated with the proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the proposed Project are summarized in Table 2-5. Construction emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the MCAQMD's thresholds of significance.

Table 2-5. Construction-Related Emissions

Construction Year	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction in 2021	4.08	40.66	22.60	0.04	24.79	12.32
Construction in 2022	9.11	33.98	44.71	0.08	39.96	5.59
Construction in 2023	8.77	30.70	43.34	0.08	39.77	5.41
MCAQMD Significance Threshold	*54*	*54*	*None*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.

As shown in Table 2-5, emissions generated during Project construction would not exceed the MCAQMD's regional thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or State ambient air quality standard.

Operational Emissions Analysis

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM_{10}, $PM_{2.5}$, CO, and SO_2 as well as ozone precursors such as ROG and NO_X. Project-generated increases in emissions would be predominantly associated with motor vehicle use.

Long-term operational emissions attributable to the Project are identified in Table 2-6 and compared to the operational significance thresholds promulgated by the MCAQMD.

Table 2-6. Operational-Related Emissions

Emission Source	Pollutant (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer Emissions						
Project Operations	2.06	2.16	4.25	0.01	66.99	6.83
Winter Emissions						
Project Operations	2.06	2.25	4.48	0.01	66.99	6.83
MCAQMD Regional Significance Thresholds (Pounds per day)	*180*	*42*	*250,000*	*None*	*82*	*54*
Exceed MCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment A for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate identified by Fehr and Pers 2019.

As shown in Table 2-6, the Project's emissions would not exceed any MCAQMD thresholds for any criteria air pollutants.

As identified in Table 2-3, the Basin is listed as a nonattainment as per State standards for PM_{10} and is in attainment or unclassified by State and federal standards for all other air quality emissions. O_3 is a health threat to persons who already suffer from respiratory diseases and can cause severe ear, nose and throat irritation and increases susceptibility to respiratory infections. Particulate matter can adversely affect the

human respiratory system. As shown in Table 2-6, the proposed Project would result in increased emissions of the O_3 precursor pollutants ROG and NO_x, PM_{10}, and $PM_{2.5}$, however, the correlation between a project's emissions and increases in nonattainment days, or frequency or severity of related illnesses, cannot be accurately quantified. The overall strategy for reducing air pollution and related health effects in the Air District is contained in MCAQMD's Rules and Regulations. As noted above, the Project would increase the emission of these pollutants, but would not exceed the thresholds of significance established by the MCAQMD for purposes of reducing air pollution and its deleterious health effects.

Conflict with the 2005 MCAQMD Particulate Matter Attainment Plan

As part of its enforcement responsibilities, the USEPA requires the State with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California CAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and State ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously mentioned, the Project site is located within the NCAB, which is under the jurisdiction of the MCAQMD. The MCAQMD is required, pursuant to the federal CAA, to reduce emissions of criteria pollutants for which the NCAB is in nonattainment. The NCAB is in nonattainment for State PM_{10} emission standards. In order to reduce such emissions, the NCAQMD drafted the 2005 PM Plan. The 2005 PM Plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State (California) air quality standards while maintaining the attainment of federal standards. The plan's pollutant control strategies are action items for the MCAQMD to more stringently enforce and improve existing air quality regulations. The 2005 PM Plan includes action items for woodstoves, campgrounds, unpaved roads, construction and grading activities, new residential development, and open burning. The MCAQMD does not provide specific guidance measures which must be considered for compliance of proposed land use projects with the 2005 PM Plan. However, a project that results in an increase in the frequency or severity of existing air quality violations or causes or contributes to new air quality violations could be considered a project that inhibits the overall reduction goals of the 2005 PM Plan. As shown in Tables 2-5 and 2-6, the proposed Project would result in emissions that would be below the MCAQMD thresholds during both construction and operations. Therefore, the proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards. Thus, it can be assumed that the Project would not conflict with 2005 PM Plan.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary TAC of concern.

Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related annual emissions of $PM_{2.5}$ exhaust, considered a surrogate for DPM, would be a maximum of 2.04 pounds per day (see Attachment A) during construction activity. $PM_{2.5}$ exhaust is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $PM_{2.5}$), according to CARB. Most $PM_{2.5}$ exhaust derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities (e.g., demolition, site preparation, building construction) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or nine-year exposure period; further, such assessments should be limited to the period/duration of activities associated with the proposed Project. Consequently, an important consideration is the fact that construction of the proposed Project is not anticipated to last nine consecutive years, the minimum duration of exposure from which to calculate health risk (Project construction is anticipated to last 24 months), and that on a day-to-day basis construction activity generally spans eight hours as opposed to throughout the entire day.

Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the fact that construction would not last as long as the minimum duration of exposure from which to calculate health risk, and the relatively short duration that construction activities (24 months) would occur, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

Operational Air Contaminants

Operation of the proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Project. Nor would the Project attract mobile sources that spend long periods queuing and idling at the site. The Project has been evaluated against the State and federal air pollution standards and as previously described, onsite Project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. Therefore, the Project would not be a source of TACs and there would be no impact as a result of the Project during operations.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the CO standard in California is a maximum of 3.4 grams per mile for passenger cars (requirements for certain vehicles are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Project vicinity have steadily declined.

Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. The analysis prepared for CO attainment in the South Coast Air Quality Management District (SCAQMD) *1992 Federal Attainment Plan for Carbon Monoxide* in Los Angeles County can be used to demonstrate the potential for CO exceedances. The SCAQMD CO hot spot analysis was conducted for four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service (LOS) in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be LOS E at peak morning traffic and LOS F at peak afternoon traffic (LOS E and F are the two least efficient traffic LOS ratings). Even with the inefficient LOS and volume of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992).

According to the Traffic Study prepared for the Project (Fehr & Peers 2019), the Project is anticipated to generate 101 daily trips on average. Because the proposed Project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values.

Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly

acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Land uses commonly considered to be potential sources of obnoxious odorous emissions include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not include any uses considered to be associated with odors.

The proposed Project does not include any of the described sources of obnoxious odors, and as such would not be a source of obnoxious odors.

Cumulative Air Quality Impacts

The cumulative setting for air quality includes Willits and the NCAB. The NCAB is designated as a nonattainment area for State standards of PM_{10}. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, the setting for this cumulative analysis consists of the NCAB and associated growth and development anticipated in the air basin.

The MCAQMD's approach to assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and California CAA. As discussed earlier, the proposed Project would be consistent with the 2005 PM Plan, which is intended to bring the NCAB into attainment for PM_{10} pollutants. In addition, individual projects that do not generate operational or construction emissions that exceed the MCAQMD's daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for the pollutant for which the air basin is in nonattainment (PM_{10}) and therefore would not be considered to have a significant, adverse air quality impact. Alternatively, individual Project-related construction and operational emissions that exceed MCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the Project will not exceed the applicable MCAQMD significance thresholds for construction or operational-source emissions.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH_4 traps over 25 times more heat per molecule than CO_2, and N_2O absorbs 298 times more heat per molecule than CO_2 (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential. Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged

over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere (IPCC 2013).

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; suffice it to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

Table 3-1. Greenhouse Gases

Greenhouse Gas	Description
CO_2	Carbon dioxide is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.[1]
CH_4	Methane is a colorless, odorless gas and is the major component of natural gas, about 87% by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH_4 to the atmosphere. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about12 years.[2]
N_2O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.[3]

Sources: [1] USEPA 2016a, [2] USEPA 2016b, [3] USEPA 2016c

3.1.1 Sources of Greenhouse Gas Emissions

In July 2018, CARB released the 2018 edition of the California GHG inventory covering calendar year 2016 emissions. In 2016, California emitted 429.4 million gross metric tons of CO_2e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2016, accounting for approximately 41 percent of total GHG emissions in the State. This sector was followed by the industrial sector (23 percent) and the electric power sector including both in-State and out-of-State sources (16 percent) (CARB 2018b).

Emissions of CO_2 are by-products of fossil fuel combustion. CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. Carbon dioxide sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution (CO_2 dissolving into the water), respectively, two of the most common processes for removing carbon dioxide from the atmosphere.

3.2 Regulatory Framework

3.2.1 State

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total GHG emission targets for the State. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

While dated, this executive order remains relevant because a more recent California Appellate Court decision, *Cleveland National Forest Foundation v. San Diego Association of Governments* (November 24, 2014) 231 Cal.App.4th 1056, examined whether it should be viewed as having the equivalent force of a legislative mandate for specific emissions reductions. While the California Supreme Court ruled that the San Diego Association of Governments did not abuse its discretion by declining "to adopt the 2050 goal as a measure of significance in light of the fact that the EO does not specify any plan or implementation measures to achieve its goal, the decision also recognized that the goal of a 40 percent reduction in 1990 GHG levels by 2030 is "widely acknowledged" as a "necessary interim target to ensure that California meets its longer-range goal of reducing greenhouse gas emissions 80 percent below 1990 levels by the year 2050.

Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that Statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). AB 32 anticipates that the GHG reduction goals will be met, in part, through local government actions. CARB has identified a GHG reduction target of 15 percent from current levels for local governments and notes that successful implementation relies on local governments' land use planning and urban growth decisions.

Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which was re-approved by CARB on August 24, 2011, that outlines measures to meet the 2020 GHG reduction goals. To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels or about 15 percent from today's levels. The Scoping Plan recommends measures for further study and possible State implementation, such as new fuel regulations. It estimates that a reduction of 174 million metric tons of CO_2e (about 191 million U.S. tons) from the transportation, energy, agriculture, and forestry sectors and other sources could be achieved should the State implement all of the measures in the Scoping Plan.

The Scoping Plan is required by AB 32 to be updated at least every five years. The first update to the AB 32 Scoping Plan was approved on May 22, 2014 by CARB. The 2017 Scoping Plan Update was adopted on

December 14, 2017. The Scoping Plan Update addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include: increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

Executive Order B-30-15

On April 20, 2015 Governor Brown signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2˚C, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050.

Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California.

In October 2015, SB 350 was signed by Governor Brown, which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from renewable resources by 2030. In 2018, SB 100 was signed by Governor Brown, codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewal Portfolio Standards.

3.2.2 Local

MCAQMD

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, the MCAQMD adopted GHG CEQA Thresholds of Significance guidelines to assist lead agencies in evaluating GHG-related impacts for projects and plans in Mendocino County. The guidelines establish thresholds of significance for impacts related to GHG emissions. These thresholds can be used to assess plan-level and project-level impacts.

The MCAQMD adopted a numeric "bright-line" threshold of 1,100 metric tons of CO_2e annually and an efficiency-based threshold of 4.6 metric tons of CO_2e per service population (defined as the people that work, study, live, patronize and/or congregate on the Project site) per year.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to greenhouse gas emissions if it would:

1) generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
2) conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

MCAQMD Thresholds

As previously stated, the MCAQMD's CEQA Guidelines include guidance on assessing greenhouse gas and climate change impacts as required under CEQA Section 15183.5(b) and establish thresholds of significance for impacts related to GHG emissions. These guidelines are based on substantial evidence to attribute an appropriate share of greenhouse gas emissions reductions necessary to reach AB 32 goals for new land use development projects in the air district's jurisdiction that are evaluated pursuant to CEQA. The Project is assessed against the MCAQMD numeric threshold of significance of 1,100 metric tons of CO_2e per year. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the Statewide GHG emissions reduction goals for the year 2020 promulgated under AB 32 and the post-2020 reduction goals promulgated under SB 32. Thus, both cumulatively and individually, projects that generate less than 1,100 metric tons CO_2e per year have a negligible contribution to overall emissions.

3.3.2 Methodology

GHG-related impacts were assessed in accordance with methodologies recommended by CARB and the MCAQMD. Where GHG emission quantification was required, emissions were modeled using the CalEEMod, version 2016.3.2. CalEEMod is a Statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land

use projects. Project construction-generated GHG emissions were primarily calculated using CalEEMod model defaults for Mendocino County; however, the length of construction is based on estimates provided by the Project applicant. As previously described, construction of the proposed Project is anticipated to start in 2021 and is estimated to last approximately 24 months. Operational GHG emissions were based on the Project site plans and the estimated traffic trip generation rates from Fehr and Peers (2019).

3.3.3 Impact Analysis

Contribution of Greenhouse Gas Emissions

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3-2 illustrates the specific construction-generated GHG emissions that would result from construction of the Project.

Table 3-2. Construction-Related Greenhouse Gas Emissions

Emissions Source	CO_2e (Metric Tons/ Year)
Construction in 2020	127
Construction in 2021	628
Construction in 2022	623
Total	**1,378**

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.

As shown in Table 3-2, Project construction would result in the generation of approximately 1,378 metric tons of CO_2e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease. The amortized construction emissions are added to the annual average operational emissions.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 3-3 and compared to MCAQMD's numeric bright-line threshold of 1,100 metric tons of CO_2e annually.

Table 3-3. Operational-Related Greenhouse Gas Emissions Attributable to Project Buildout

Emissions Source	CO_2e (Metric Tons/Year)
Proposed Project Buildout	
Total Construction Emissions (amortized over the lifespan of the Project)	46
Area Source Emissions	0
Energy Source Emissions	190
Mobile Source Emissions	155
Solid Waste Hauling & Decomposition Emissions	121
Water & Wastewater Conveyance Emissions	22
Total Emissions	**534**
MCAQMD Bright-line Screening Threshold	*1,100*
Exceeds MCAQMD Screening Threshold?	**No**

Source: CalEEMod version 2016.3.2. Refer to Attachment B for Model Data Outputs.
Notes: Emissions projections account for a trip generation rate identified by Fehr & Peers 2019

As shown in Table 3-3, operational-generated emissions would not exceed the MCAQMD's numeric bright-line threshold of 1,100 metric tons of CO_2e annually. As previously stated, the numeric 1,100 metric tons of CO_2e threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to the Statewide GHG emissions reduction goals for the year 2020 promulgated under AB 32 and the post-2020 reduction goals promulgated under SB 32. Thus, both cumulatively and individually, projects that generate less than 1,100 metric tons CO_2e per year have a negligible contribution to overall emissions. Therefore, the Project will have a less than significant impact on the environment due to GHG emissions since it would not exceed this threshold of significance.

Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

The Project would not conflict with any adopted plans, policies, or regulations adopted for the purpose of reducing GHG emissions. The proposed Project is subject to compliance with AB 32 and SB 32. As discussed previously, the proposed Project-generated GHG emissions would not surpass the MCAQMD GHG significance thresholds, which were prepared with the purpose of complying with these requirements. Additionally, the center is intended to be designed to ZNE per the Governor's Executive Order B-18-12 and achieve at minimum a LEED Silver certification, and thus a heightened level of energy efficiency for all Project buildings.

Also, a photovoltaic array to generate supplemental electrical power for the Center would be located north of the emergency staging area. The 488 kW (STC DC) array would be comprised of 35,000 square feet of ground mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually. Therefore, the proposed Project would contribute to the continued reduction of GHG emissions in the interconnected California and western U.S. electricity systems, as the energy produced by the Project would displace GHG emissions that would otherwise be produced by existing 'business-as-usual' power generation resources (including natural gas, coal, arid renewable combustion resources). The Project would generate a maximum of 488 kW of electricity at any

one time. Table 3-4 shows the emissions that would potentially be displaced by the proposed Project. Note that this estimate only includes that associated with the combustion of fossil fuels; it does not include the vehicle trips associated with the Project's operations, and it similarly does not include operational employee trips associated with natural gas or coal combustion nor the emissions associated with extracting and transporting those power sources.

Table 3-4. Proposed Project Displaced GHG Emissions (Metric Tons)

	Emissions (Metric Tons)			
	CO_2	CH_4	N_2O	CO_2e
Emissions Displaced Annually (metric tons)				
Displaced Natural Gas-Source Emissions	100	0	0	100
Displaced Coal-Source Emissions	22	0	0	22
Total	122	0	0	122
Emissions Displaced over 30 Years (metric tons)				
Displaced Natural Gas-Source Emissions	3,000	0	0	3,000
Displaced Coal-Source Emissions	660	0	0	660
Total	3,660	0	0	3,660

Source: Displaced emissions calculated by ECORP using USEPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015. (See Attachment B.

Notes: In order to provide a conservative analysis, the proposed Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually). A heat rate of 9,313 Btu per kWh is assumed based on an average of thermal power plants supplying energy to California. The heat content of coal is assumed at 24 million Btu per ton of coal burned. 702,000 annual kWh x 9,313 heat rate = 6,536,748,135 Btu displaced from fossil fuel production. Energy consumption in California is predominately derived from natural gas (34.91%). Coal constitutes 3.30% of all energy-based energy consumption in California. Renewable sources (not including hydroelectric generators) account for 31.36% and nuclear power accounts for 9.05%. 9.25% of the state's energy comes from unspecified nonrenewable sources and this percentage is added to the natural gas total for the purpose of this analysis. Therefore, 2,886 million of the displaced Btu is displaced natural gas consumption and 215 million of the displaced Btu is displaced coal. At a rate of 24 million Btu per ton of coal burned, the Project would displace 9 tons of burned coal annually.

As shown, the Project would potentially displace approximately 122 metric tons of CO_2e per year, and approximately 3,660 metric tons of CO_2e over the course of 30 years. These GHG-reducing mechanisms are consistent with Statewide reduction goals and for these reasons the Project would have a less than significant impact.

Cumulative GHG Impacts

Climate change is a global problem. And GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of Project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the

proposed Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. the Project would not conflict with any applicable GHG reduction plans. Therefore, the Project's cumulative contribution of GHG emissions would be less than significant and the Project's cumulative GHG impacts would also be less than cumulatively considerable.

4.0 REFERENCES

CAPCOA. 2013. Health Effects. http://www.capcoa.org/health-effects/.

CARB. 2008. *Climate Change Scoping Plan Appendices* (Appendix F).

_____. 2019. Air Quality Data Statistics. http://www.arb.ca.gov/adam/index.html.

_____. 2018a. State and Federal Area Designation Maps. http://www.arb.ca.gov/desig/adm/adm.htm.

_____. 2018b. *California Greenhouse Gas Emission Inventory 2018 Edition*. https://ww3.arb.ca.gov/cc/inventory/data/data.htm

Fehr and Peers. 2019. *California Conservation Corps Facility Traffic Impact Analysis*.

IPCC. 2014. Climate Change 2014 Synthesis Report: Approved Summary for Policymakers. http://www.ipcc.ch/.

_____. 2013. *Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

MCAQMD. 2005. Particulate Matter Attainment Plan. http://www.co.mendocino.ca.us/aqmd/pdf_files/Attainment%20Plan_DRAFT.pdf.

_____. 2010. Adopted Air Quality CEQA Thresholds of Significance. http://www.co.mendocino.ca.us/aqmd/pdf_files/MCAQMDCEQARecomendations.pdf.

_____. 2017. Compiled Rules and Regulations. https://www.epa.gov/sites/production/files/2018-01/documents/mendocino_county_air_quality_management_district_aqmd_rules_compilation_dec_2017.pdf.

SCAQMD. 1992. *1992 Federal Attainment Plan for Carbon Monoxide*.

USEPA. 1995; 2015. *AP-42 Fifth Edition Compilation of Air Emissions Factors*.

_____. 2016a. *Climate Change – Greenhouse Gas Emissions: Carbon Dioxide*. http://www.epa.gov/climatechange/emissions/co2.html.

_____. 2016b. *Methane*. https://www3.epa.gov/climatechange/ghgemissions/gases/ch4.html.

_____. 2016c. *Nitrous Oxide*. https://www3.epa.gov/climatechange/ghgemissions/gases/n2o.html.

Willits, Town of. 1992. Vision 2020 Willits General Plan Revision. https://cityofwillits.org/DocumentCenter/View/262/City-of-Willits-General-Plan.

_____. 2019. Willits Code of Ordinances. https://library.municode.com/ca/willits/codes/code_of_ordinances

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LIST OF ATTACHMENTS

Attachment A - CalEEMod Output Files – Criteria Air Pollutants

Attachment B - CalEEMod Output Files – Greenhouse Gas Emissions

ATTACHMENT A

CalEEMod Output Files – Criteria Air Pollutants

Willits Center CCC

Mendocino-Inland County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.36	1000sqft	0.08	3,363.00	0
General Office Building	6.27	1000sqft	0.14	6,268.00	0
Manufacturing	13.60	1000sqft	0.31	13,604.00	0
Unrefrigerated Warehouse-No Rail	0.20	1000sqft	0.00	200.00	0
Other Asphalt Surfaces	101.00	1000sqft	2.32	101,000.00	0
Other Non-Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Other Non-Asphalt Surfaces	78.00	1000sqft	1.79	78,000.00	0
Health Club	5.50	1000sqft	0.13	5,498.00	0
High Turnover (Sit Down Restaurant)	14.66	1000sqft	0.34	14,656.00	0
Single Family Housing	7.00	Dwelling Unit	2.27	12,600.00	20

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	86
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Willits Center CCC - Mendocino-Inland County, Summer

Project Characteristics - 2020 PG&E CO2 Intensity Factor

Land Use - Accounts for Admin Bldng, Housing, Warehouse, MPR, Storage Blding, Edu Blding, Rec Blding, Solar Array, Internal Circulation, and Hardscape

Construction Phase - Construction duration expanded per Initial Study Project Description. Building construction, paving, and painting assumed to occur simultaneously

Grading -

Vehicle Trips - Trip generation per Traffic Impact Assessment

Woodstoves - No hearths

Fleet Mix -

On-road Fugitive Dust - Worker Commute Trips - 99%; Vendor Trips = 100% paved roads

Road Dust - Paved Roads

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	FireplaceDayYear	116.67	0.00
tblFireplaces	FireplaceWoodMass	4,992.00	0.00
tblFireplaces	NumberGas	2.10	0.00
tblFireplaces	NumberNoFireplace	2.45	7.00
tblFireplaces	NumberWood	2.45	0.00
tblLandUse	LandUseSquareFeet	3,360.00	3,363.00
tblLandUse	LandUseSquareFeet	6,270.00	6,268.00
tblLandUse	LandUseSquareFeet	13,600.00	13,604.00
tblLandUse	LandUseSquareFeet	5,500.00	5,498.00
tblLandUse	LandUseSquareFeet	14,660.00	14,656.00
tblOnRoadDust	VendorPercentPave	80.00	100.00

tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	80	90
tblVehicleTrips	ST_TR	2.46	3.32
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.62
tblVehicleTrips	ST_TR	1.49	1.18
tblVehicleTrips	ST_TR	9.91	6.29
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.05	3.32
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.62
tblVehicleTrips	SU_TR	0.62	1.18
tblVehicleTrips	SU_TR	8.62	6.29
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	11.03	3.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.62

tblVehicleTrips	WD_TR	3.82	1.18
tblVehicleTrips	WD_TR	9.52	6.29
tblVehicleTrips	WD_TR	1.68	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	116.67	0.00
tblWoodstoves	WoodstoveWoodMass	4,896.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.0752	40.6575	22.5984	0.0402	22.7445	2.0465	24.7910	10.4353	1.8828	12.3180	0.0000	3,900.0746	3,900.0746	1.2061	0.0000	3,930.2268
2022	9.1105	33.9831	44.7086	0.0812	38.4692	1.4916	39.9608	4.1964	1.3964	5.5928	0.0000	7,925.9175	7,925.9175	1.5013	0.0000	7,963.4490
2023	8.7732	30.7049	43.3416	0.0805	38.4692	1.3010	39.7701	4.1965	1.2175	5.4139	0.0000	7,856.0326	7,856.0326	1.4695	0.0000	7,892.7690
Maximum	**9.1105**	**40.6575**	**44.7086**	**0.0812**	**38.4692**	**2.0465**	**39.9608**	**10.4353**	**1.8828**	**12.3180**	**0.0000**	**7,925.9175**	**7,925.9175**	**1.5013**	**0.0000**	**7,963.4490**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.0752	40.6575	22.5984	0.0402	22.7445	2.0465	24.7910	10.4353	1.8828	12.3180	0.0000	3,900.0746	3,900.0746	1.2061	0.0000	3,930.2268
2022	9.1105	33.9831	44.7086	0.0812	38.4692	1.4916	39.9608	4.1964	1.3964	5.5928	0.0000	7,925.9175	7,925.9175	1.5013	0.0000	7,963.4490
2023	8.7732	30.7049	43.3416	0.0805	38.4692	1.3010	39.7701	4.1965	1.2175	5.4139	0.0000	7,856.0326	7,856.0326	1.4695	0.0000	7,892.7690
Maximum	**9.1105**	**40.6575**	**44.7086**	**0.0812**	**38.4692**	**2.0465**	**39.9608**	**10.4353**	**1.8828**	**12.3180**	**0.0000**	**7,925.9175**	**7,925.9175**	**1.5013**	**0.0000**	**7,963.4490**

Willits Center CCC - Mendocino-Inland County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Energy	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
Mobile	0.2796	1.6105	3.1923	9.4000e-003	66.9377	8.5200e-003	66.9462	6.7736	8.0100e-003	6.7816		953.2821	953.2821	0.0412		954.3112
Total	**2.0636**	**2.1648**	**4.2472**	**0.0127**	**66.9377**	**0.0535**	**66.9912**	**6.7736**	**0.0530**	**6.8266**	**0.0000**	**1,612.9055**	**1,612.9055**	**0.0549**	**0.0121**	**1,617.8766**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Energy	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
Mobile	0.2796	1.6105	3.1923	9.4000e-003	66.9377	8.5200e-003	66.9462	6.7736	8.0100e-003	6.7816		953.2821	953.2821	0.0412		954.3112
Total	**2.0636**	**2.1648**	**4.2472**	**0.0127**	**66.9377**	**0.0535**	**66.9912**	**6.7736**	**0.0530**	**6.8266**	**0.0000**	**1,612.9055**	**1,612.9055**	**0.0549**	**0.0121**	**1,617.8766**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/21/2021	8/13/2021	5	40	
2	Grading	Grading	8/14/2021	10/8/2021	5	40	
3	Building Construction	Building Construction	4/30/2022	9/1/2023	5	350	
4	Paving	Paving	4/30/2022	9/1/2023	5	350	
5	Architectural Coating	Architectural Coating	4/30/2022	9/1/2023	5	350	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.91

Residential Indoor: 25,515; Residential Outdoor: 8,505; Non-Residential Indoor: 65,384; Non-Residential Outdoor: 21,795; Striped Parking Area: 12,840 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	43.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1871	0.1604	1.4441	2.1600e-003	4.6783	2.0300e-003	4.6803	0.5046	1.8700e-003	0.5064		214.4178	214.4178	0.0141		214.7695
Total	**0.1871**	**0.1604**	**1.4441**	**2.1600e-003**	**4.6783**	**2.0300e-003**	**4.6803**	**0.5046**	**1.8700e-003**	**0.5064**		**214.4178**	**214.4178**	**0.0141**		**214.7695**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1871	0.1604	1.4441	2.1600e-003	4.6783	2.0300e-003	4.6803	0.5046	1.8700e-003	0.5064		214.4178	214.4178	0.0141		214.7695
Total	**0.1871**	**0.1604**	**1.4441**	**2.1600e-003**	**4.6783**	**2.0300e-003**	**4.6803**	**0.5046**	**1.8700e-003**	**0.5064**		**214.4178**	**214.4178**	**0.0141**		**214.7695**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1559	0.1337	1.2034	1.8000e-003	3.8986	1.6900e-003	3.9003	0.4205	1.5600e-003	0.4220		178.6815	178.6815	0.0117		178.9746
Total	**0.1559**	**0.1337**	**1.2034**	**1.8000e-003**	**3.8986**	**1.6900e-003**	**3.9003**	**0.4205**	**1.5600e-003**	**0.4220**		**178.6815**	**178.6815**	**0.0117**		**178.9746**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1559	0.1337	1.2034	1.8000e-003	3.8986	1.6900e-003	3.9003	0.4205	1.5600e-003	0.4220		178.6815	178.6815	0.0117		178.9746
Total	**0.1559**	**0.1337**	**1.2034**	**1.8000e-003**	**3.8986**	**1.6900e-003**	**3.9003**	**0.4205**	**1.5600e-003**	**0.4220**		**178.6815**	**178.6815**	**0.0117**		**178.9746**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1894	4.6460	1.3200	0.0113	0.2633	0.0173	0.2806	0.0758	0.0166	0.0924		1,184.7209	1,184.7209	0.0537		1,186.0641
Worker	1.0869	0.8890	7.9553	0.0128	28.5894	0.0117	28.6011	3.0835	0.0108	3.0943		1,270.4287	1,270.4287	0.0773		1,272.3604
Total	**1.2763**	**5.5351**	**9.2753**	**0.0242**	**28.8527**	**0.0290**	**28.8817**	**3.1593**	**0.0274**	**3.1867**		**2,455.1495**	**2,455.1495**	**0.1310**		**2,458.4245**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1894	4.6460	1.3200	0.0113	0.2633	0.0173	0.2806	0.0758	0.0166	0.0924		1,184.7209	1,184.7209	0.0537		1,186.0641
Worker	1.0869	0.8890	7.9553	0.0128	28.5894	0.0117	28.6011	3.0835	0.0108	3.0943		1,270.4287	1,270.4287	0.0773		1,272.3604
Total	**1.2763**	**5.5351**	**9.2753**	**0.0242**	**28.8527**	**0.0290**	**28.8817**	**3.1593**	**0.0274**	**3.1867**		**2,455.1495**	**2,455.1495**	**0.1310**		**2,458.4245**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1416	3.7502	1.1504	0.0112	0.2633	5.5500e-003	0.2688	0.0758	5.3000e-003	0.0811		1,168.8394	1,168.8394	0.0383		1,169.7965
Worker	1.0322	0.8046	7.1477	0.0124	28.5894	0.0110	28.6004	3.0835	0.0101	3.0936		1,229.4191	1,229.4191	0.0692		1,231.1499
Total	**1.1738**	**4.5547**	**8.2981**	**0.0236**	**28.8527**	**0.0165**	**28.8692**	**3.1593**	**0.0154**	**3.1747**		**2,398.2586**	**2,398.2586**	**0.1075**		**2,400.9463**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1416	3.7502	1.1504	0.0112	0.2633	5.5500e-003	0.2688	0.0758	5.3000e-003	0.0811		1,168.8394	1,168.8394	0.0383		1,169.7965
Worker	1.0322	0.8046	7.1477	0.0124	28.5894	0.0110	28.6004	3.0835	0.0101	3.0936		1,229.4191	1,229.4191	0.0692		1,231.1499
Total	**1.1738**	**4.5547**	**8.2981**	**0.0236**	**28.8527**	**0.0165**	**28.8692**	**3.1593**	**0.0154**	**3.1747**		**2,398.2586**	**2,398.2586**	**0.1075**		**2,400.9463**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1202**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1482	0.1212	1.0848	1.7500e-003	3.8986	1.6000e-003	3.9002	0.4205	1.4700e-003	0.4220		173.2403	173.2403	0.0105		173.5037
Total	**0.1482**	**0.1212**	**1.0848**	**1.7500e-003**	**3.8986**	**1.6000e-003**	**3.9002**	**0.4205**	**1.4700e-003**	**0.4220**		**173.2403**	**173.2403**	**0.0105**		**173.5037**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1202**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1482	0.1212	1.0848	1.7500e-003	3.8986	1.6000e-003	3.9002	0.4205	1.4700e-003	0.4220		173.2403	173.2403	0.0105		173.5037
Total	**0.1482**	**0.1212**	**1.0848**	**1.7500e-003**	**3.8986**	**1.6000e-003**	**3.9002**	**0.4205**	**1.4700e-003**	**0.4220**		**173.2403**	**173.2403**	**0.0105**		**173.5037**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0501**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1408	0.1097	0.9747	1.6900e-003	3.8986	1.5000e-003	3.9001	0.4205	1.3800e-003	0.4219		167.6481	167.6481	9.4400e-003		167.8841
Total	**0.1408**	**0.1097**	**0.9747**	**1.6900e-003**	**3.8986**	**1.5000e-003**	**3.9001**	**0.4205**	**1.3800e-003**	**0.4219**		**167.6481**	**167.6481**	**9.4400e-003**		**167.8841**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0501**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1408	0.1097	0.9747	1.6900e-003	3.8986	1.5000e-003	3.9001	0.4205	1.3800e-003	0.4219		167.6481	167.6481	9.4400e-003		167.8841
Total	**0.1408**	**0.1097**	**0.9747**	**1.6900e-003**	**3.8986**	**1.5000e-003**	**3.9001**	**0.4205**	**1.3800e-003**	**0.4219**		**167.6481**	**167.6481**	**9.4400e-003**		**167.8841**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**4.6422**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2174	0.1778	1.5911	2.5600e-003	5.7179	2.3400e-003	5.7202	0.6167	2.1600e-003	0.6189		254.0857	254.0857	0.0155		254.4721
Total	**0.2174**	**0.1778**	**1.5911**	**2.5600e-003**	**5.7179**	**2.3400e-003**	**5.7202**	**0.6167**	**2.1600e-003**	**0.6189**		**254.0857**	**254.0857**	**0.0155**		**254.4721**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**4.6422**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2174	0.1778	1.5911	2.5600e-003	5.7179	2.3400e-003	5.7202	0.6167	2.1600e-003	0.6189		254.0857	254.0857	0.0155		254.4721
Total	**0.2174**	**0.1778**	**1.5911**	**2.5600e-003**	**5.7179**	**2.3400e-003**	**5.7202**	**0.6167**	**2.1600e-003**	**0.6189**		**254.0857**	**254.0857**	**0.0155**		**254.4721**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**4.6293**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2065	0.1609	1.4295	2.4800e-003	5.7179	2.1900e-003	5.7201	0.6167	2.0200e-003	0.6187		245.8838	245.8838	0.0139		246.2300
Total	**0.2065**	**0.1609**	**1.4295**	**2.4800e-003**	**5.7179**	**2.1900e-003**	**5.7201**	**0.6167**	**2.0200e-003**	**0.6187**		**245.8838**	**245.8838**	**0.0139**		**246.2300**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**4.6293**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2065	0.1609	1.4295	2.4800e-003	5.7179	2.1900e-003	5.7201	0.6167	2.0200e-003	0.6187		245.8838	245.8838	0.0139		246.2300
Total	**0.2065**	**0.1609**	**1.4295**	**2.4800e-003**	**5.7179**	**2.1900e-003**	**5.7201**	**0.6167**	**2.0200e-003**	**0.6187**		**245.8838**	**245.8838**	**0.0139**		**246.2300**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2796	1.6105	3.1923	9.4000e-003	66.9377	8.5200e-003	66.9462	6.7736	8.0100e-003	6.7816		953.2821	953.2821	0.0412		954.3112
Unmitigated	0.2796	1.6105	3.1923	9.4000e-003	66.9377	8.5200e-003	66.9462	6.7736	8.0100e-003	6.7816		953.2821	953.2821	0.0412		954.3112

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	11.16	11.16	11.16	30,798	30,798
General Office Building	20.82	20.82	20.82	57,470	57,470
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	9.09	9.09	9.09	10,270	10,270
Manufacturing	16.05	16.05	16.05	62,001	62,001
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	44.03	44.03	44.03	163,735	163,735
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	101.14	101.14	101.14	324,274	324,274

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Health Club	14.70	6.60	6.60	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	14.70	6.60	6.60	8.50	72.50	19.00	37	20	43
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Single Family Housing	16.80	7.10	7.90	42.30	19.60	38.10	86	11	3
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Health Club	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
High Turnover (Sit Down Restaurant)	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Manufacturing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Non-Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Single Family Housing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Unrefrigerated Warehouse-No Rail	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
NaturalGas Unmitigated	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	180.036	1.9400e-003	0.0177	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.1807	21.1807	4.1000e-004	3.9000e-004	21.3065
General Office Building	335.553	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003		39.4768	39.4768	7.6000e-004	7.2000e-004	39.7114
Health Club	52.8712	5.7000e-004	5.1800e-003	4.3500e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.2201	6.2201	1.2000e-004	1.1000e-004	6.2571
High Turnover (Sit Down Restaurant)	4665.83	0.0503	0.4574	0.3842	2.7400e-003		0.0348	0.0348		0.0348	0.0348		548.9209	548.9209	0.0105	0.0101	552.1829
Manufacturing	130.822	1.4100e-003	0.0128	0.0108	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		15.3908	15.3908	2.9000e-004	2.8000e-004	15.4823
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	232.371	2.5100e-003	0.0214	9.1100e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3378	27.3378	5.2000e-004	5.0000e-004	27.5003
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0604**	**0.5474**	**0.4509**	**3.3000e-003**		**0.0417**	**0.0417**		**0.0417**	**0.0417**		**658.5271**	**658.5271**	**0.0126**	**0.0121**	**662.4404**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.180036	1.9400e-003	0.0177	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.1807	21.1807	4.1000e-004	3.9000e-004	21.3065
General Office Building	0.335553	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003		39.4768	39.4768	7.6000e-004	7.2000e-004	39.7114
Health Club	0.0528712	5.7000e-004	5.1800e-003	4.3500e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.2201	6.2201	1.2000e-004	1.1000e-004	6.2571
High Turnover (Sit Down Restaurant)	4.66583	0.0503	0.4574	0.3842	2.7400e-003		0.0348	0.0348		0.0348	0.0348		548.9209	548.9209	0.0105	0.0101	552.1829
Manufacturing	0.130822	1.4100e-003	0.0128	0.0108	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		15.3908	15.3908	2.9000e-004	2.8000e-004	15.4823
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.232371	2.5100e-003	0.0214	9.1100e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3378	27.3378	5.2000e-004	5.0000e-004	27.5003
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0604**	**0.5474**	**0.4509**	**3.3000e-003**		**0.0417**	**0.0417**		**0.0417**	**0.0417**		**658.5271**	**658.5271**	**0.0126**	**0.0121**	**662.4404**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Unmitigated	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4255					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0198	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003		1.0962	1.0962	1.1500e-003		1.1249
Total	**1.7236**	**6.9000e-003**	**0.6039**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**1.0962**	**1.0962**	**1.1500e-003**	**0.0000**	**1.1249**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4255					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0198	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003		1.0962	1.0962	1.1500e-003		1.1249
Total	**1.7236**	**6.9000e-003**	**0.6039**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**1.0962**	**1.0962**	**1.1500e-003**	**0.0000**	**1.1249**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Willits Center CCC

Mendocino-Inland County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.36	1000sqft	0.08	3,363.00	0
General Office Building	6.27	1000sqft	0.14	6,268.00	0
Manufacturing	13.60	1000sqft	0.31	13,604.00	0
Unrefrigerated Warehouse-No Rail	0.20	1000sqft	0.00	200.00	0
Other Asphalt Surfaces	101.00	1000sqft	2.32	101,000.00	0
Other Non-Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Other Non-Asphalt Surfaces	78.00	1000sqft	1.79	78,000.00	0
Health Club	5.50	1000sqft	0.13	5,498.00	0
High Turnover (Sit Down Restaurant)	14.66	1000sqft	0.34	14,656.00	0
Single Family Housing	7.00	Dwelling Unit	2.27	12,600.00	20

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	86
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Willits Center CCC - Mendocino-Inland County, Winter

Project Characteristics - 2020 PG&E CO2 Intensity Factor

Land Use - Accounts for Admin Bldng, Housing, Warehouse, MPR, Storage Blding, Edu Blding, Rec Blding, Solar Array, Internal Circulation, and Hardscape

Construction Phase - Construction duration expanded per Initial Study Project Description. Building construction, paving, and painting assumed to occur simultaneously

Grading -

Vehicle Trips - Trip generation per Traffic Impact Assessment

Woodstoves - No hearths

Fleet Mix -

On-road Fugitive Dust - Worker Commute Trips - 99%; Vendor Trips = 100% paved roads

Road Dust - Paved Roads

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	FireplaceDayYear	116.67	0.00
tblFireplaces	FireplaceWoodMass	4,992.00	0.00
tblFireplaces	NumberGas	2.10	0.00
tblFireplaces	NumberNoFireplace	2.45	7.00
tblFireplaces	NumberWood	2.45	0.00
tblLandUse	LandUseSquareFeet	3,360.00	3,363.00
tblLandUse	LandUseSquareFeet	6,270.00	6,268.00
tblLandUse	LandUseSquareFeet	13,600.00	13,604.00
tblLandUse	LandUseSquareFeet	5,500.00	5,498.00
tblLandUse	LandUseSquareFeet	14,660.00	14,656.00
tblOnRoadDust	VendorPercentPave	80.00	100.00

tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	80	90
tblVehicleTrips	ST_TR	2.46	3.32
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.62
tblVehicleTrips	ST_TR	1.49	1.18
tblVehicleTrips	ST_TR	9.91	6.29
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.05	3.32
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.62
tblVehicleTrips	SU_TR	0.62	1.18
tblVehicleTrips	SU_TR	8.62	6.29
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	11.03	3.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.62

tblVehicleTrips	WD_TR	3.82	1.18
tblVehicleTrips	WD_TR	9.52	6.29
tblVehicleTrips	WD_TR	1.68	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	116.67	0.00
tblWoodstoves	WoodstoveWoodMass	4,896.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.1164	40.6957	22.6465	0.0401	22.7445	2.0465	24.7910	10.4353	1.8828	12.3180	0.0000	3,893.7617	3,893.7617	1.2061	0.0000	3,923.9141
2022	9.4504	34.2865	45.2283	0.0803	38.4692	1.4925	39.9617	4.1964	1.3973	5.5937	0.0000	7,836.7803	7,836.7803	1.5069	0.0000	7,874.4523
2023	9.0983	30.9718	43.7297	0.0796	38.4692	1.3011	39.7703	4.1965	1.2176	5.4140	0.0000	7,768.0480	7,768.0480	1.4726	0.0000	7,804.8639
Maximum	**9.4504**	**40.6957**	**45.2283**	**0.0803**	**38.4692**	**2.0465**	**39.9617**	**10.4353**	**1.8828**	**12.3180**	**0.0000**	**7,836.7803**	**7,836.7803**	**1.5069**	**0.0000**	**7,874.4523**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.1164	40.6957	22.6465	0.0401	22.7445	2.0465	24.7910	10.4353	1.8828	12.3180	0.0000	3,893.7617	3,893.7617	1.2061	0.0000	3,923.9141
2022	9.4504	34.2865	45.2283	0.0803	38.4692	1.4925	39.9617	4.1964	1.3973	5.5937	0.0000	7,836.7803	7,836.7803	1.5069	0.0000	7,874.4523
2023	9.0983	30.9718	43.7297	0.0796	38.4692	1.3011	39.7703	4.1965	1.2176	5.4140	0.0000	7,768.0480	7,768.0480	1.4726	0.0000	7,804.8639
Maximum	**9.4504**	**40.6957**	**45.2283**	**0.0803**	**38.4692**	**2.0465**	**39.9617**	**10.4353**	**1.8828**	**12.3180**	**0.0000**	**7,836.7803**	**7,836.7803**	**1.5069**	**0.0000**	**7,874.4523**

Willits Center CCC - Mendocino-Inland County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Energy	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
Mobile	0.2763	1.6973	3.4216	9.1300e-003	66.9377	8.5700e-003	66.9463	6.7736	8.0600e-003	6.7817		924.7962	924.7962	0.0428		925.8649
Total	**2.0602**	**2.2516**	**4.4764**	**0.0125**	**66.9377**	**0.0536**	**66.9913**	**6.7736**	**0.0531**	**6.8267**	**0.0000**	**1,584.4195**	**1,584.4195**	**0.0565**	**0.0121**	**1,589.4303**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Energy	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
Mobile	0.2763	1.6973	3.4216	9.1300e-003	66.9377	8.5700e-003	66.9463	6.7736	8.0600e-003	6.7817		924.7962	924.7962	0.0428		925.8649
Total	**2.0602**	**2.2516**	**4.4764**	**0.0125**	**66.9377**	**0.0536**	**66.9913**	**6.7736**	**0.0531**	**6.8267**	**0.0000**	**1,584.4195**	**1,584.4195**	**0.0565**	**0.0121**	**1,589.4303**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/21/2021	8/13/2021	5	40	
2	Grading	Grading	8/14/2021	10/8/2021	5	40	
3	Building Construction	Building Construction	4/30/2022	9/1/2023	5	350	
4	Paving	Paving	4/30/2022	9/1/2023	5	350	
5	Architectural Coating	Architectural Coating	4/30/2022	9/1/2023	5	350	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.91

Residential Indoor: 25,515; Residential Outdoor: 8,505; Non-Residential Indoor: 65,384; Non-Residential Outdoor: 21,795; Striped Parking Area: 12,840 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	43.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2283	0.1986	1.4922	2.1000e-003	4.6783	2.0300e-003	4.6803	0.5046	1.8700e-003	0.5064		208.1048	208.1048	0.0141		208.4568
Total	**0.2283**	**0.1986**	**1.4922**	**2.1000e-003**	**4.6783**	**2.0300e-003**	**4.6803**	**0.5046**	**1.8700e-003**	**0.5064**		**208.1048**	**208.1048**	**0.0141**		**208.4568**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2283	0.1986	1.4922	2.1000e-003	4.6783	2.0300e-003	4.6803	0.5046	1.8700e-003	0.5064		208.1048	208.1048	0.0141		208.4568
Total	**0.2283**	**0.1986**	**1.4922**	**2.1000e-003**	**4.6783**	**2.0300e-003**	**4.6803**	**0.5046**	**1.8700e-003**	**0.5064**		**208.1048**	**208.1048**	**0.0141**		**208.4568**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1902	0.1655	1.2435	1.7500e-003	3.8986	1.6900e-003	3.9003	0.4205	1.5600e-003	0.4220		173.4206	173.4206	0.0117		173.7140
Total	**0.1902**	**0.1655**	**1.2435**	**1.7500e-003**	**3.8986**	**1.6900e-003**	**3.9003**	**0.4205**	**1.5600e-003**	**0.4220**		**173.4206**	**173.4206**	**0.0117**		**173.7140**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.5523**	**1.1599**	**7.7123**	**3.3675**	**1.0671**	**4.4346**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1902	0.1655	1.2435	1.7500e-003	3.8986	1.6900e-003	3.9003	0.4205	1.5600e-003	0.4220		173.4206	173.4206	0.0117		173.7140
Total	**0.1902**	**0.1655**	**1.2435**	**1.7500e-003**	**3.8986**	**1.6900e-003**	**3.9003**	**0.4205**	**1.5600e-003**	**0.4220**		**173.4206**	**173.4206**	**0.0117**		**173.7140**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2050	4.6675	1.5417	0.0110	0.2633	0.0183	0.2815	0.0758	0.0175	0.0933		1,145.6259	1,145.6259	0.0599		1,147.1239
Worker	1.3296	1.1000	8.1783	0.0124	28.5894	0.0117	28.6011	3.0835	0.0108	3.0943		1,232.9821	1,232.9821	0.0768		1,234.9031
Total	**1.5346**	**5.7675**	**9.7199**	**0.0234**	**28.8527**	**0.0300**	**28.8827**	**3.1593**	**0.0283**	**3.1875**		**2,378.6080**	**2,378.6080**	**0.1368**		**2,382.0270**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.2050	4.6675	1.5417	0.0110	0.2633	0.0183	0.2815	0.0758	0.0175	0.0933		1,145.6259	1,145.6259	0.0599		1,147.1239
Worker	1.3296	1.1000	8.1783	0.0124	28.5894	0.0117	28.6011	3.0835	0.0108	3.0943		1,232.9821	1,232.9821	0.0768		1,234.9031
Total	**1.5346**	**5.7675**	**9.7199**	**0.0234**	**28.8527**	**0.0300**	**28.8827**	**3.1593**	**0.0283**	**3.1875**		**2,378.6080**	**2,378.6080**	**0.1368**		**2,382.0270**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1542	3.7625	1.3272	0.0108	0.2633	5.7000e-003	0.2690	0.0758	5.4500e-003	0.0812		1,129.3338	1,129.3338	0.0426		1,130.3992
Worker	1.2661	0.9950	7.3058	0.0120	28.5894	0.0110	28.6004	3.0835	0.0101	3.0936		1,193.1424	1,193.1424	0.0684		1,194.8515
Total	**1.4203**	**4.7576**	**8.6330**	**0.0228**	**28.8527**	**0.0167**	**28.8694**	**3.1593**	**0.0156**	**3.1748**		**2,322.4762**	**2,322.4762**	**0.1110**		**2,325.2507**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1542	3.7625	1.3272	0.0108	0.2633	5.7000e-003	0.2690	0.0758	5.4500e-003	0.0812		1,129.3338	1,129.3338	0.0426		1,130.3992
Worker	1.2661	0.9950	7.3058	0.0120	28.5894	0.0110	28.6004	3.0835	0.0101	3.0936		1,193.1424	1,193.1424	0.0684		1,194.8515
Total	**1.4203**	**4.7576**	**8.6330**	**0.0228**	**28.8527**	**0.0167**	**28.8694**	**3.1593**	**0.0156**	**3.1748**		**2,322.4762**	**2,322.4762**	**0.1110**		**2,325.2507**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1202**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1813	0.1500	1.1152	1.7000e-003	3.8986	1.6000e-003	3.9002	0.4205	1.4700e-003	0.4220		168.1339	168.1339	0.0105		168.3959
Total	**0.1813**	**0.1500**	**1.1152**	**1.7000e-003**	**3.8986**	**1.6000e-003**	**3.9002**	**0.4205**	**1.4700e-003**	**0.4220**		**168.1339**	**168.1339**	**0.0105**		**168.3959**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1202**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1813	0.1500	1.1152	1.7000e-003	3.8986	1.6000e-003	3.9002	0.4205	1.4700e-003	0.4220		168.1339	168.1339	0.0105		168.3959
Total	**0.1813**	**0.1500**	**1.1152**	**1.7000e-003**	**3.8986**	**1.6000e-003**	**3.9002**	**0.4205**	**1.4700e-003**	**0.4220**		**168.1339**	**168.1339**	**0.0105**		**168.3959**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0501**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1727	0.1357	0.9962	1.6400e-003	3.8986	1.5000e-003	3.9001	0.4205	1.3800e-003	0.4219		162.7012	162.7012	9.3200e-003		162.9343
Total	**0.1727**	**0.1357**	**0.9962**	**1.6400e-003**	**3.8986**	**1.5000e-003**	**3.9001**	**0.4205**	**1.3800e-003**	**0.4219**		**162.7012**	**162.7012**	**9.3200e-003**		**162.9343**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0174					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0501**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1727	0.1357	0.9962	1.6400e-003	3.8986	1.5000e-003	3.9001	0.4205	1.3800e-003	0.4219		162.7012	162.7012	9.3200e-003		162.9343
Total	**0.1727**	**0.1357**	**0.9962**	**1.6400e-003**	**3.8986**	**1.5000e-003**	**3.9001**	**0.4205**	**1.3800e-003**	**0.4219**		**162.7012**	**162.7012**	**9.3200e-003**		**162.9343**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**4.6422**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2659	0.2200	1.6357	2.4900e-003	5.7179	2.3400e-003	5.7202	0.6167	2.1600e-003	0.6189		246.5964	246.5964	0.0154		246.9806
Total	**0.2659**	**0.2200**	**1.6357**	**2.4900e-003**	**5.7179**	**2.3400e-003**	**5.7202**	**0.6167**	**2.1600e-003**	**0.6189**		**246.5964**	**246.5964**	**0.0154**		**246.9806**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**4.6422**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2659	0.2200	1.6357	2.4900e-003	5.7179	2.3400e-003	5.7202	0.6167	2.1600e-003	0.6189		246.5964	246.5964	0.0154		246.9806
Total	**0.2659**	**0.2200**	**1.6357**	**2.4900e-003**	**5.7179**	**2.3400e-003**	**5.7202**	**0.6167**	**2.1600e-003**	**0.6189**		**246.5964**	**246.5964**	**0.0154**		**246.9806**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**4.6293**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2532	0.1990	1.4612	2.4100e-003	5.7179	2.1900e-003	5.7201	0.6167	2.0200e-003	0.6187		238.6285	238.6285	0.0137		238.9703
Total	**0.2532**	**0.1990**	**1.4612**	**2.4100e-003**	**5.7179**	**2.1900e-003**	**5.7201**	**0.6167**	**2.0200e-003**	**0.6187**		**238.6285**	**238.6285**	**0.0137**		**238.9703**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.4377					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**4.6293**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2532	0.1990	1.4612	2.4100e-003	5.7179	2.1900e-003	5.7201	0.6167	2.0200e-003	0.6187		238.6285	238.6285	0.0137		238.9703
Total	**0.2532**	**0.1990**	**1.4612**	**2.4100e-003**	**5.7179**	**2.1900e-003**	**5.7201**	**0.6167**	**2.0200e-003**	**0.6187**		**238.6285**	**238.6285**	**0.0137**		**238.9703**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2763	1.6973	3.4216	9.1300e-003	66.9377	8.5700e-003	66.9463	6.7736	8.0600e-003	6.7817		924.7962	924.7962	0.0428		925.8649
Unmitigated	0.2763	1.6973	3.4216	9.1300e-003	66.9377	8.5700e-003	66.9463	6.7736	8.0600e-003	6.7817		924.7962	924.7962	0.0428		925.8649

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	11.16	11.16	11.16	30,798	30,798
General Office Building	20.82	20.82	20.82	57,470	57,470
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	9.09	9.09	9.09	10,270	10,270
Manufacturing	16.05	16.05	16.05	62,001	62,001
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	44.03	44.03	44.03	163,735	163,735
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	101.14	101.14	101.14	324,274	324,274

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Health Club	14.70	6.60	6.60	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	14.70	6.60	6.60	8.50	72.50	19.00	37	20	43
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Single Family Housing	16.80	7.10	7.90	42.30	19.60	38.10	86	11	3
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Health Club	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
High Turnover (Sit Down Restaurant)	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Manufacturing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Non-Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Single Family Housing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Unrefrigerated Warehouse-No Rail	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404
NaturalGas Unmitigated	0.0604	0.5474	0.4510	3.2900e-003		0.0417	0.0417		0.0417	0.0417		658.5271	658.5271	0.0126	0.0121	662.4404

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	180.036	1.9400e-003	0.0177	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.1807	21.1807	4.1000e-004	3.9000e-004	21.3065
General Office Building	335.553	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003		39.4768	39.4768	7.6000e-004	7.2000e-004	39.7114
Health Club	52.8712	5.7000e-004	5.1800e-003	4.3500e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.2201	6.2201	1.2000e-004	1.1000e-004	6.2571
High Turnover (Sit Down Restaurant)	4665.83	0.0503	0.4574	0.3842	2.7400e-003		0.0348	0.0348		0.0348	0.0348		548.9209	548.9209	0.0105	0.0101	552.1829
Manufacturing	130.822	1.4100e-003	0.0128	0.0108	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		15.3908	15.3908	2.9000e-004	2.8000e-004	15.4823
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	232.371	2.5100e-003	0.0214	9.1100e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3378	27.3378	5.2000e-004	5.0000e-004	27.5003
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0604**	**0.5474**	**0.4509**	**3.3000e-003**		**0.0417**	**0.0417**		**0.0417**	**0.0417**		**658.5271**	**658.5271**	**0.0126**	**0.0121**	**662.4404**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.180036	1.9400e-003	0.0177	0.0148	1.1000e-004		1.3400e-003	1.3400e-003		1.3400e-003	1.3400e-003		21.1807	21.1807	4.1000e-004	3.9000e-004	21.3065
General Office Building	0.335553	3.6200e-003	0.0329	0.0276	2.0000e-004		2.5000e-003	2.5000e-003		2.5000e-003	2.5000e-003		39.4768	39.4768	7.6000e-004	7.2000e-004	39.7114
Health Club	0.0528712	5.7000e-004	5.1800e-003	4.3500e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004		6.2201	6.2201	1.2000e-004	1.1000e-004	6.2571
High Turnover (Sit Down Restaurant)	4.66583	0.0503	0.4574	0.3842	2.7400e-003		0.0348	0.0348		0.0348	0.0348		548.9209	548.9209	0.0105	0.0101	552.1829
Manufacturing	0.130822	1.4100e-003	0.0128	0.0108	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004		15.3908	15.3908	2.9000e-004	2.8000e-004	15.4823
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.232371	2.5100e-003	0.0214	9.1100e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003		27.3378	27.3378	5.2000e-004	5.0000e-004	27.5003
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0604**	**0.5474**	**0.4509**	**3.3000e-003**		**0.0417**	**0.0417**		**0.0417**	**0.0417**		**658.5271**	**658.5271**	**0.0126**	**0.0121**	**662.4404**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249
Unmitigated	1.7236	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	1.0962	1.0962	1.1500e-003	0.0000	1.1249

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4255					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0198	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003		1.0962	1.0962	1.1500e-003		1.1249
Total	**1.7236**	**6.9000e-003**	**0.6039**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**1.0962**	**1.0962**	**1.1500e-003**	**0.0000**	**1.1249**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4255					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2782					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0198	6.9000e-003	0.6039	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003		1.0962	1.0962	1.1500e-003		1.1249
Total	**1.7236**	**6.9000e-003**	**0.6039**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**1.0962**	**1.0962**	**1.1500e-003**	**0.0000**	**1.1249**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT B

CalEEMod Output Files – Greenhouse Gas Emissions

Willits Center CCC

Mendocino-Inland County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	3.36	1000sqft	0.08	3,363.00	0
General Office Building	6.27	1000sqft	0.14	6,268.00	0
Manufacturing	13.60	1000sqft	0.31	13,604.00	0
Unrefrigerated Warehouse-No Rail	0.20	1000sqft	0.00	200.00	0
Other Asphalt Surfaces	101.00	1000sqft	2.32	101,000.00	0
Other Non-Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Other Non-Asphalt Surfaces	78.00	1000sqft	1.79	78,000.00	0
Health Club	5.50	1000sqft	0.13	5,498.00	0
High Turnover (Sit Down Restaurant)	14.66	1000sqft	0.34	14,656.00	0
Single Family Housing	7.00	Dwelling Unit	2.27	12,600.00	20

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	86
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	290	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Willits Center CCC - Mendocino-Inland County, Annual

Project Characteristics - 2020 PG&E CO2 Intensity Factor

Land Use - Accounts for Admin Bldng, Housing, Warehouse, MPR, Storage Blding, Edu Blding, Rec Blding, Solar Array, Internal Circulation, and Hardscape

Construction Phase - Construction duration expanded per Initial Study Project Description. Building construction, paving, and painting assumed to occur simultaneously

Grading -

Vehicle Trips - Trip generation per Traffic Impact Assessment

Woodstoves - No hearths

Fleet Mix -

On-road Fugitive Dust - Worker Commute Trips - 99%; Vendor Trips = 100% paved roads

Road Dust - Paved Roads

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	230.00	350.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	20.00	350.00
tblConstructionPhase	NumDays	10.00	40.00
tblFireplaces	FireplaceDayYear	116.67	0.00
tblFireplaces	FireplaceWoodMass	4,992.00	0.00
tblFireplaces	NumberGas	2.10	0.00
tblFireplaces	NumberNoFireplace	2.45	7.00
tblFireplaces	NumberWood	2.45	0.00
tblLandUse	LandUseSquareFeet	3,360.00	3,363.00
tblLandUse	LandUseSquareFeet	6,270.00	6,268.00
tblLandUse	LandUseSquareFeet	13,600.00	13,604.00
tblLandUse	LandUseSquareFeet	5,500.00	5,498.00
tblLandUse	LandUseSquareFeet	14,660.00	14,656.00
tblOnRoadDust	VendorPercentPave	80.00	100.00

tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	VendorPercentPave	80.00	100.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblOnRoadDust	WorkerPercentPave	80.00	99.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	80	90
tblVehicleTrips	ST_TR	2.46	3.32
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	158.37	0.62
tblVehicleTrips	ST_TR	1.49	1.18
tblVehicleTrips	ST_TR	9.91	6.29
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.05	3.32
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	131.84	0.62
tblVehicleTrips	SU_TR	0.62	1.18
tblVehicleTrips	SU_TR	8.62	6.29
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	11.03	3.32
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	127.15	0.62

tblVehicleTrips	WD_TR	3.82	1.18
tblVehicleTrips	WD_TR	9.52	6.29
tblVehicleTrips	WD_TR	1.68	0.00
tblWoodstoves	NumberNoncatalytic	2.80	0.00
tblWoodstoves	WoodstoveDayYear	116.67	0.00
tblWoodstoves	WoodstoveWoodMass	4,896.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1310	1.3112	0.7934	1.4300e-003	0.6250	0.0642	0.6892	0.2805	0.0590	0.3396	0.0000	125.9684	125.9684	0.0389	0.0000	126.9421
2022	0.8087	2.9845	3.9213	7.0600e-003	2.6075	0.1306	2.7380	0.2901	0.1222	0.4124	0.0000	625.1448	625.1448	0.1193	0.0000	628.1274
2023	0.7787	2.6964	3.7977	7.0000e-003	2.6075	0.1138	2.7213	0.2901	0.1065	0.3967	0.0000	619.6681	619.6681	0.1167	0.0000	622.5856
Maximum	**0.8087**	**2.9845**	**3.9213**	**7.0600e-003**	**2.6075**	**0.1306**	**2.7380**	**0.2901**	**0.1222**	**0.4124**	**0.0000**	**625.1448**	**625.1448**	**0.1193**	**0.0000**	**628.1274**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1310	1.3112	0.7934	1.4300e-003	0.6250	0.0642	0.6892	0.2805	0.0590	0.3396	0.0000	125.9683	125.9683	0.0389	0.0000	126.9419
2022	0.8087	2.9845	3.9213	7.0600e-003	2.6075	0.1306	2.7380	0.2901	0.1222	0.4124	0.0000	625.1443	625.1443	0.1193	0.0000	628.1269
2023	0.7787	2.6964	3.7977	7.0000e-003	2.6075	0.1138	2.7213	0.2901	0.1065	0.3967	0.0000	619.6676	619.6676	0.1167	0.0000	622.5851
Maximum	**0.8087**	**2.9845**	**3.9213**	**7.0600e-003**	**2.6075**	**0.1306**	**2.7380**	**0.2901**	**0.1222**	**0.4124**	**0.0000**	**625.1443**	**625.1443**	**0.1193**	**0.0000**	**628.1269**

Willits Center CCC - Mendocino-Inland County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
7	**4-21-2021**	**7-20-2021**	0.4793	0.4793
8	**7-21-2021**	**10-20-2021**	0.9299	0.9299
11	**4-21-2022**	**7-20-2022**	1.2620	1.2620
12	**7-21-2022**	**10-20-2022**	1.4205	1.4205
13	**10-21-2022**	**1-20-2023**	1.4109	1.4109
14	**1-21-2023**	**4-20-2023**	1.2837	1.2837
15	**4-21-2023**	**7-20-2023**	1.2830	1.2830
16	**7-21-2023**	**9-30-2023**	0.6063	0.6063
		Highest	1.4205	1.4205

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3127	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919
Energy	0.0110	0.0999	0.0823	6.0000e-004		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	189.1505	189.1505	0.0101	3.6600e-003	190.4927
Mobile	0.0502	0.2993	0.5940	1.6800e-003	12.1770	1.5500e-003	12.1785	1.2314	1.4600e-003	1.2329	0.0000	154.5482	154.5482	6.8800e-003	0.0000	154.7201
Waste						0.0000	0.0000		0.0000	0.0000	48.8417	0.0000	48.8417	2.8865	0.0000	121.0031
Water						0.0000	0.0000		0.0000	0.0000	3.2151	8.0510	11.2661	0.3310	7.9600e-003	21.9148
Total	**0.3739**	**0.3998**	**0.7307**	**2.2800e-003**	**12.1770**	**9.4600e-003**	**12.1864**	**1.2314**	**9.3700e-003**	**1.2408**	**52.0567**	**351.8392**	**403.8959**	**3.2346**	**0.0116**	**488.2226**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3127	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919
Energy	0.0110	0.0999	0.0823	6.0000e-004		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	189.1505	189.1505	0.0101	3.6600e-003	190.4927
Mobile	0.0502	0.2993	0.5940	1.6800e-003	12.1770	1.5500e-003	12.1785	1.2314	1.4600e-003	1.2329	0.0000	154.5482	154.5482	6.8800e-003	0.0000	154.7201
Waste						0.0000	0.0000		0.0000	0.0000	48.8417	0.0000	48.8417	2.8865	0.0000	121.0031
Water						0.0000	0.0000		0.0000	0.0000	3.2151	8.0510	11.2661	0.3310	7.9600e-003	21.9148
Total	**0.3739**	**0.3998**	**0.7307**	**2.2800e-003**	**12.1770**	**9.4600e-003**	**12.1864**	**1.2314**	**9.3700e-003**	**1.2408**	**52.0567**	**351.8392**	**403.8959**	**3.2346**	**0.0116**	**488.2226**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/21/2021	8/13/2021	5	40	
2	Grading	Grading	8/14/2021	10/8/2021	5	40	
3	Building Construction	Building Construction	4/30/2022	9/1/2023	5	350	
4	Paving	Paving	4/30/2022	9/1/2023	5	350	
5	Architectural Coating	Architectural Coating	4/30/2022	9/1/2023	5	350	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 4.91

Residential Indoor: 25,515; Residential Outdoor: 8,505; Non-Residential Indoor: 65,384; Non-Residential Outdoor: 21,795; Striped Parking Area: 12,840 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	110.00	43.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	0.8099	0.4231	7.6000e-004		0.0409	0.0409		0.0376	0.0376	0.0000	66.8714	66.8714	0.0216	0.0000	67.4121
Total	**0.0778**	**0.8099**	**0.4231**	**7.6000e-004**	**0.3613**	**0.0409**	**0.4022**	**0.1986**	**0.0376**	**0.2362**	**0.0000**	**66.8714**	**66.8714**	**0.0216**	**0.0000**	**67.4121**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0600e-003	3.5400e-003	0.0290	4.0000e-005	0.0724	4.0000e-005	0.0724	7.9400e-003	4.0000e-005	7.9800e-003	0.0000	3.8125	3.8125	2.5000e-004	0.0000	3.8188
Total	**4.0600e-003**	**3.5400e-003**	**0.0290**	**4.0000e-005**	**0.0724**	**4.0000e-005**	**0.0724**	**7.9400e-003**	**4.0000e-005**	**7.9800e-003**	**0.0000**	**3.8125**	**3.8125**	**2.5000e-004**	**0.0000**	**3.8188**

3.2 Site Preparation - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0778	0.8099	0.4231	7.6000e-004		0.0409	0.0409		0.0376	0.0376	0.0000	66.8714	66.8714	0.0216	0.0000	67.4120
Total	**0.0778**	**0.8099**	**0.4231**	**7.6000e-004**	**0.3613**	**0.0409**	**0.4022**	**0.1986**	**0.0376**	**0.2362**	**0.0000**	**66.8714**	**66.8714**	**0.0216**	**0.0000**	**67.4120**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0600e-003	3.5400e-003	0.0290	4.0000e-005	0.0724	4.0000e-005	0.0724	7.9400e-003	4.0000e-005	7.9800e-003	0.0000	3.8125	3.8125	2.5000e-004	0.0000	3.8188
Total	**4.0600e-003**	**3.5400e-003**	**0.0290**	**4.0000e-005**	**0.0724**	**4.0000e-005**	**0.0724**	**7.9400e-003**	**4.0000e-005**	**7.9800e-003**	**0.0000**	**3.8125**	**3.8125**	**2.5000e-004**	**0.0000**	**3.8188**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1311	0.0000	0.1311	0.0674	0.0000	0.0674	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.4947	0.3172	5.9000e-004		0.0232	0.0232		0.0213	0.0213	0.0000	52.1074	52.1074	0.0169	0.0000	52.5287
Total	**0.0458**	**0.4947**	**0.3172**	**5.9000e-004**	**0.1311**	**0.0232**	**0.1543**	**0.0674**	**0.0213**	**0.0887**	**0.0000**	**52.1074**	**52.1074**	**0.0169**	**0.0000**	**52.5287**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	2.9500e-003	0.0241	4.0000e-005	0.0603	3.0000e-005	0.0603	6.6200e-003	3.0000e-005	6.6500e-003	0.0000	3.1771	3.1771	2.1000e-004	0.0000	3.1824
Total	**3.3800e-003**	**2.9500e-003**	**0.0241**	**4.0000e-005**	**0.0603**	**3.0000e-005**	**0.0603**	**6.6200e-003**	**3.0000e-005**	**6.6500e-003**	**0.0000**	**3.1771**	**3.1771**	**2.1000e-004**	**0.0000**	**3.1824**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1311	0.0000	0.1311	0.0674	0.0000	0.0674	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.4947	0.3172	5.9000e-004		0.0232	0.0232		0.0213	0.0213	0.0000	52.1073	52.1073	0.0169	0.0000	52.5287
Total	**0.0458**	**0.4947**	**0.3172**	**5.9000e-004**	**0.1311**	**0.0232**	**0.1543**	**0.0674**	**0.0213**	**0.0887**	**0.0000**	**52.1073**	**52.1073**	**0.0169**	**0.0000**	**52.5287**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3800e-003	2.9500e-003	0.0241	4.0000e-005	0.0603	3.0000e-005	0.0603	6.6200e-003	3.0000e-005	6.6500e-003	0.0000	3.1771	3.1771	2.1000e-004	0.0000	3.1824
Total	**3.3800e-003**	**2.9500e-003**	**0.0241**	**4.0000e-005**	**0.0603**	**3.0000e-005**	**0.0603**	**6.6200e-003**	**3.0000e-005**	**6.6500e-003**	**0.0000**	**3.1771**	**3.1771**	**2.1000e-004**	**0.0000**	**3.1824**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7596	202.7596	0.0486	0.0000	203.9740
Total	**0.1493**	**1.3664**	**1.4318**	**2.3600e-003**		**0.0708**	**0.0708**		**0.0666**	**0.0666**	**0.0000**	**202.7596**	**202.7596**	**0.0486**	**0.0000**	**203.9740**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.4069	0.1243	9.8000e-004	0.0221	1.5500e-003	0.0236	6.3900e-003	1.4800e-003	7.8800e-003	0.0000	92.7366	92.7366	4.4800e-003	0.0000	92.8486
Worker	0.1033	0.0857	0.6965	1.1000e-003	1.9346	1.0200e-003	1.9357	0.2123	9.5000e-004	0.2133	0.0000	98.8253	98.8253	6.0700e-003	0.0000	98.9771
Total	**0.1205**	**0.4926**	**0.8208**	**2.0800e-003**	**1.9567**	**2.5700e-003**	**1.9593**	**0.2187**	**2.4300e-003**	**0.2212**	**0.0000**	**191.5619**	**191.5619**	**0.0106**	**0.0000**	**191.8257**

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1493	1.3664	1.4318	2.3600e-003		0.0708	0.0708		0.0666	0.0666	0.0000	202.7594	202.7594	0.0486	0.0000	203.9737
Total	**0.1493**	**1.3664**	**1.4318**	**2.3600e-003**		**0.0708**	**0.0708**		**0.0666**	**0.0666**	**0.0000**	**202.7594**	**202.7594**	**0.0486**	**0.0000**	**203.9737**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0172	0.4069	0.1243	9.8000e-004	0.0221	1.5500e-003	0.0236	6.3900e-003	1.4800e-003	7.8800e-003	0.0000	92.7366	92.7366	4.4800e-003	0.0000	92.8486
Worker	0.1033	0.0857	0.6965	1.1000e-003	1.9346	1.0200e-003	1.9357	0.2123	9.5000e-004	0.2133	0.0000	98.8253	98.8253	6.0700e-003	0.0000	98.9771
Total	**0.1205**	**0.4926**	**0.8208**	**2.0800e-003**	**1.9567**	**2.5700e-003**	**1.9593**	**0.2187**	**2.4300e-003**	**0.2212**	**0.0000**	**191.5619**	**191.5619**	**0.0106**	**0.0000**	**191.8257**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1376	1.2587	1.4214	2.3600e-003		0.0612	0.0612		0.0576	0.0576	0.0000	202.8292	202.8292	0.0483	0.0000	204.0354
Total	**0.1376**	**1.2587**	**1.4214**	**2.3600e-003**		**0.0612**	**0.0612**		**0.0576**	**0.0576**	**0.0000**	**202.8292**	**202.8292**	**0.0483**	**0.0000**	**204.0354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3283	0.1078	9.6000e-004	0.0221	4.9000e-004	0.0226	6.3900e-003	4.7000e-004	6.8600e-003	0.0000	91.4622	91.4622	3.1900e-003	0.0000	91.5421
Worker	0.0983	0.0775	0.6241	1.0600e-003	1.9346	9.6000e-004	1.9356	0.2123	8.9000e-004	0.2132	0.0000	95.6331	95.6331	5.4200e-003	0.0000	95.7687
Total	**0.1111**	**0.4059**	**0.7318**	**2.0200e-003**	**1.9567**	**1.4500e-003**	**1.9582**	**0.2187**	**1.3600e-003**	**0.2201**	**0.0000**	**187.0954**	**187.0954**	**8.6100e-003**	**0.0000**	**187.3108**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1376	1.2587	1.4214	2.3600e-003		0.0612	0.0612		0.0576	0.0576	0.0000	202.8289	202.8289	0.0483	0.0000	204.0352
Total	**0.1376**	**1.2587**	**1.4214**	**2.3600e-003**		**0.0612**	**0.0612**		**0.0576**	**0.0576**	**0.0000**	**202.8289**	**202.8289**	**0.0483**	**0.0000**	**204.0352**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0129	0.3283	0.1078	9.6000e-004	0.0221	4.9000e-004	0.0226	6.3900e-003	4.7000e-004	6.8600e-003	0.0000	91.4622	91.4622	3.1900e-003	0.0000	91.5421
Worker	0.0983	0.0775	0.6241	1.0600e-003	1.9346	9.6000e-004	1.9356	0.2123	8.9000e-004	0.2132	0.0000	95.6331	95.6331	5.4200e-003	0.0000	95.7687
Total	**0.1111**	**0.4059**	**0.7318**	**2.0200e-003**	**1.9567**	**1.4500e-003**	**1.9582**	**0.2187**	**1.3600e-003**	**0.2201**	**0.0000**	**187.0954**	**187.0954**	**8.6100e-003**	**0.0000**	**187.3108**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0965	0.9734	1.2758	2.0000e-003		0.0497	0.0497		0.0457	0.0457	0.0000	175.2411	175.2411	0.0567	0.0000	176.6580
Paving	1.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0980**	**0.9734**	**1.2758**	**2.0000e-003**		**0.0497**	**0.0497**		**0.0457**	**0.0457**	**0.0000**	**175.2411**	**175.2411**	**0.0567**	**0.0000**	**176.6580**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0117	0.0950	1.5000e-004	0.2638	1.4000e-004	0.2640	0.0290	1.3000e-004	0.0291	0.0000	13.4762	13.4762	8.3000e-004	0.0000	13.4969
Total	**0.0141**	**0.0117**	**0.0950**	**1.5000e-004**	**0.2638**	**1.4000e-004**	**0.2640**	**0.0290**	**1.3000e-004**	**0.0291**	**0.0000**	**13.4762**	**13.4762**	**8.3000e-004**	**0.0000**	**13.4969**

3.5 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0965	0.9734	1.2758	2.0000e-003		0.0497	0.0497		0.0457	0.0457	0.0000	175.2409	175.2409	0.0567	0.0000	176.6578
Paving	1.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0980**	**0.9734**	**1.2758**	**2.0000e-003**		**0.0497**	**0.0497**		**0.0457**	**0.0457**	**0.0000**	**175.2409**	**175.2409**	**0.0567**	**0.0000**	**176.6578**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	0.0117	0.0950	1.5000e-004	0.2638	1.4000e-004	0.2640	0.0290	1.3000e-004	0.0291	0.0000	13.4762	13.4762	8.3000e-004	0.0000	13.4969
Total	**0.0141**	**0.0117**	**0.0950**	**1.5000e-004**	**0.2638**	**1.4000e-004**	**0.2640**	**0.0290**	**1.3000e-004**	**0.0291**	**0.0000**	**13.4762**	**13.4762**	**8.3000e-004**	**0.0000**	**13.4969**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0904	0.8918	1.2761	2.0000e-003		0.0446	0.0446		0.0411	0.0411	0.0000	175.2351	175.2351	0.0567	0.0000	176.6520
Paving	1.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0919**	**0.8918**	**1.2761**	**2.0000e-003**		**0.0446**	**0.0446**		**0.0411**	**0.0411**	**0.0000**	**175.2351**	**175.2351**	**0.0567**	**0.0000**	**176.6520**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0134	0.0106	0.0851	1.4000e-004	0.2638	1.3000e-004	0.2640	0.0290	1.2000e-004	0.0291	0.0000	13.0409	13.0409	7.4000e-004	0.0000	13.0594
Total	**0.0134**	**0.0106**	**0.0851**	**1.4000e-004**	**0.2638**	**1.3000e-004**	**0.2640**	**0.0290**	**1.2000e-004**	**0.0291**	**0.0000**	**13.0409**	**13.0409**	**7.4000e-004**	**0.0000**	**13.0594**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0904	0.8918	1.2761	2.0000e-003		0.0446	0.0446		0.0411	0.0411	0.0000	175.2349	175.2349	0.0567	0.0000	176.6517
Paving	1.5200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0919**	**0.8918**	**1.2761**	**2.0000e-003**		**0.0446**	**0.0446**		**0.0411**	**0.0411**	**0.0000**	**175.2349**	**175.2349**	**0.0567**	**0.0000**	**176.6517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0134	0.0106	0.0851	1.4000e-004	0.2638	1.3000e-004	0.2640	0.0290	1.2000e-004	0.0291	0.0000	13.0409	13.0409	7.4000e-004	0.0000	13.0594
Total	**0.0134**	**0.0106**	**0.0851**	**1.4000e-004**	**0.2638**	**1.3000e-004**	**0.2640**	**0.0290**	**1.2000e-004**	**0.0291**	**0.0000**	**13.0409**	**13.0409**	**7.4000e-004**	**0.0000**	**13.0594**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1232	0.1587	2.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	22.3410	22.3410	1.4500e-003	0.0000	22.3773
Total	**0.4062**	**0.1232**	**0.1587**	**2.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**22.3410**	**22.3410**	**1.4500e-003**	**0.0000**	**22.3773**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0207	0.0171	0.1393	2.2000e-004	0.3869	2.0000e-004	0.3871	0.0425	1.9000e-004	0.0427	0.0000	19.7651	19.7651	1.2100e-003	0.0000	19.7954
Total	**0.0207**	**0.0171**	**0.1393**	**2.2000e-004**	**0.3869**	**2.0000e-004**	**0.3871**	**0.0425**	**1.9000e-004**	**0.0427**	**0.0000**	**19.7651**	**19.7651**	**1.2100e-003**	**0.0000**	**19.7954**

3.6 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1232	0.1587	2.6000e-004		7.1500e-003	7.1500e-003		7.1500e-003	7.1500e-003	0.0000	22.3409	22.3409	1.4500e-003	0.0000	22.3773
Total	**0.4062**	**0.1232**	**0.1587**	**2.6000e-004**		**7.1500e-003**	**7.1500e-003**		**7.1500e-003**	**7.1500e-003**	**0.0000**	**22.3409**	**22.3409**	**1.4500e-003**	**0.0000**	**22.3773**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0207	0.0171	0.1393	2.2000e-004	0.3869	2.0000e-004	0.3871	0.0425	1.9000e-004	0.0427	0.0000	19.7651	19.7651	1.2100e-003	0.0000	19.7954
Total	**0.0207**	**0.0171**	**0.1393**	**2.2000e-004**	**0.3869**	**2.0000e-004**	**0.3871**	**0.0425**	**1.9000e-004**	**0.0427**	**0.0000**	**19.7651**	**19.7651**	**1.2100e-003**	**0.0000**	**19.7954**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0168	0.1140	0.1585	2.6000e-004		6.2000e-003	6.2000e-003		6.2000e-003	6.2000e-003	0.0000	22.3410	22.3410	1.3400e-003	0.0000	22.3744
Total	**0.4051**	**0.1140**	**0.1585**	**2.6000e-004**		**6.2000e-003**	**6.2000e-003**		**6.2000e-003**	**6.2000e-003**	**0.0000**	**22.3410**	**22.3410**	**1.3400e-003**	**0.0000**	**22.3744**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0197	0.0155	0.1248	2.1000e-004	0.3869	1.9000e-004	0.3871	0.0425	1.8000e-004	0.0426	0.0000	19.1266	19.1266	1.0800e-003	0.0000	19.1537
Total	**0.0197**	**0.0155**	**0.1248**	**2.1000e-004**	**0.3869**	**1.9000e-004**	**0.3871**	**0.0425**	**1.8000e-004**	**0.0426**	**0.0000**	**19.1266**	**19.1266**	**1.0800e-003**	**0.0000**	**19.1537**

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0168	0.1140	0.1585	2.6000e-004		6.2000e-003	6.2000e-003		6.2000e-003	6.2000e-003	0.0000	22.3409	22.3409	1.3400e-003	0.0000	22.3744
Total	**0.4051**	**0.1140**	**0.1585**	**2.6000e-004**		**6.2000e-003**	**6.2000e-003**		**6.2000e-003**	**6.2000e-003**	**0.0000**	**22.3409**	**22.3409**	**1.3400e-003**	**0.0000**	**22.3744**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0197	0.0155	0.1248	2.1000e-004	0.3869	1.9000e-004	0.3871	0.0425	1.8000e-004	0.0426	0.0000	19.1266	19.1266	1.0800e-003	0.0000	19.1537
Total	**0.0197**	**0.0155**	**0.1248**	**2.1000e-004**	**0.3869**	**1.9000e-004**	**0.3871**	**0.0425**	**1.8000e-004**	**0.0426**	**0.0000**	**19.1266**	**19.1266**	**1.0800e-003**	**0.0000**	**19.1537**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0502	0.2993	0.5940	1.6800e-003	12.1770	1.5500e-003	12.1785	1.2314	1.4600e-003	1.2329	0.0000	154.5482	154.5482	6.8800e-003	0.0000	154.7201
Unmitigated	0.0502	0.2993	0.5940	1.6800e-003	12.1770	1.5500e-003	12.1785	1.2314	1.4600e-003	1.2329	0.0000	154.5482	154.5482	6.8800e-003	0.0000	154.7201

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	11.16	11.16	11.16	30,798	30,798
General Office Building	20.82	20.82	20.82	57,470	57,470
Health Club	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	9.09	9.09	9.09	10,270	10,270
Manufacturing	16.05	16.05	16.05	62,001	62,001
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	44.03	44.03	44.03	163,735	163,735
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	101.14	101.14	101.14	324,274	324,274

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Health Club	14.70	6.60	6.60	16.90	64.10	19.00	52	39	9
High Turnover (Sit Down	14.70	6.60	6.60	8.50	72.50	19.00	37	20	43
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Single Family Housing	16.80	7.10	7.90	42.30	19.60	38.10	86	11	3
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Health Club	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
High Turnover (Sit Down Restaurant)	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Manufacturing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Other Non-Asphalt Surfaces	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Single Family Housing	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920
Unrefrigerated Warehouse-No Rail	0.497946	0.041736	0.196549	0.128845	0.034372	0.005581	0.016726	0.068189	0.001664	0.001271	0.005110	0.001091	0.000920

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.1239	80.1239	8.0100e-003	1.6600e-003	80.8182
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	80.1239	80.1239	8.0100e-003	1.6600e-003	80.8182
NaturalGas Mitigated	0.0110	0.0999	0.0823	6.0000e-004		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	109.0266	109.0266	2.0900e-003	2.0000e-003	109.6744
NaturalGas Unmitigated	0.0110	0.0999	0.0823	6.0000e-004		7.6100e-003	7.6100e-003		7.6100e-003	7.6100e-003	0.0000	109.0266	109.0266	2.0900e-003	2.0000e-003	109.6744

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	65713	3.5000e-004	3.2200e-003	2.7100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.5067	3.5067	7.0000e-005	6.0000e-005	3.5275
General Office Building	122477	6.6000e-004	6.0000e-003	5.0400e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5358	6.5358	1.3000e-004	1.2000e-004	6.5747
Health Club	19298	1.0000e-004	9.5000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0298	1.0298	2.0000e-005	2.0000e-005	1.0359
High Turnover (Sit Down Restaurant)	1.70303e+006	9.1800e-003	0.0835	0.0701	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.8800	90.8800	1.7400e-003	1.6700e-003	91.4201
Manufacturing	47750	2.6000e-004	2.3400e-003	1.9700e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5481	2.5481	5.0000e-005	5.0000e-005	2.5633
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	84815.5	4.6000e-004	3.9100e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5261	4.5261	9.0000e-005	8.0000e-005	4.5530
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0110**	**0.0999**	**0.0823**	**6.0000e-004**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**109.0266**	**109.0266**	**2.1000e-003**	**2.0000e-003**	**109.6744**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	122477	6.6000e-004	6.0000e-003	5.0400e-003	4.0000e-005		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	6.5358	6.5358	1.3000e-004	1.2000e-004	6.5747
General Office Building	65713	3.5000e-004	3.2200e-003	2.7100e-003	2.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	3.5067	3.5067	7.0000e-005	6.0000e-005	3.5275
Health Club	19298	1.0000e-004	9.5000e-004	7.9000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.0298	1.0298	2.0000e-005	2.0000e-005	1.0359
High Turnover (Sit Down Restaurant)	1.70303e+006	9.1800e-003	0.0835	0.0701	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003	0.0000	90.8800	90.8800	1.7400e-003	1.6700e-003	91.4201
Manufacturing	47750	2.6000e-004	2.3400e-003	1.9700e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5481	2.5481	5.0000e-005	5.0000e-005	2.5633
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	84815.5	4.6000e-004	3.9100e-003	1.6600e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	4.5261	4.5261	9.0000e-005	8.0000e-005	4.5530
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0110**	**0.0999**	**0.0823**	**6.0000e-004**		**7.6100e-003**	**7.6100e-003**		**7.6100e-003**	**7.6100e-003**	**0.0000**	**109.0266**	**109.0266**	**2.1000e-003**	**2.0000e-003**	**109.6744**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	37194.8	4.8927	4.9000e-004	1.0000e-004	4.9351
General Office Building	69324.1	9.1190	9.1000e-004	1.9000e-004	9.1980
Health Club	23531.4	3.0954	3.1000e-004	6.0000e-005	3.1222
High Turnover (Sit Down Restaurant)	360098	47.3679	4.7400e-003	9.8000e-004	47.7784
Manufacturing	58225.1	7.6590	7.7000e-004	1.6000e-004	7.7254
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	60740.5	7.9899	8.0000e-004	1.7000e-004	8.0592
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**80.1239**	**8.0200e-003**	**1.6600e-003**	**80.8183**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	37194.8	4.8927	4.9000e-004	1.0000e-004	4.9351
General Office Building	69324.1	9.1190	9.1000e-004	1.9000e-004	9.1980
Health Club	23531.4	3.0954	3.1000e-004	6.0000e-005	3.1222
High Turnover (Sit Down Restaurant)	360098	47.3679	4.7400e-003	9.8000e-004	47.7784
Manufacturing	58225.1	7.6590	7.7000e-004	1.6000e-004	7.7254
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	60740.5	7.9899	8.0000e-004	1.7000e-004	8.0592
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**80.1239**	**8.0200e-003**	**1.6600e-003**	**80.8183**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3127	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919
Unmitigated	0.3127	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7900e-003	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919
Total	**0.3127**	**6.2000e-004**	**0.0544**	**0.0000**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0895**	**0.0895**	**9.0000e-005**	**0.0000**	**0.0919**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2333					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.7900e-003	6.2000e-004	0.0544	0.0000		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	0.0895	0.0895	9.0000e-005	0.0000	0.0919
Total	**0.3127**	**6.2000e-004**	**0.0544**	**0.0000**		**3.0000e-004**	**3.0000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.0895**	**0.0895**	**9.0000e-005**	**0.0000**	**0.0919**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.2661	0.3310	7.9600e-003	21.9148
Unmitigated	11.2661	0.3310	7.9600e-003	21.9148

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.71158 / 1.04903	2.2442	0.0559	1.3500e-003	4.0457
Health Club	0.325287 / 0.19937	0.4265	0.0106	2.6000e-004	0.7689
High Turnover (Sit Down Restaurant)	4.4498 / 0.28403	4.7097	0.1453	3.4900e-003	9.3835
Manufacturing	3.145 / 0	3.2363	0.1027	2.4700e-003	6.5388
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.456078 / 0.287528	0.6017	0.0149	3.6000e-004	1.0818
Unrefrigerated Warehouse-No Rail	0.04625 / 0	0.0476	1.5100e-003	4.0000e-005	0.0962
Total		**11.2661**	**0.3310**	**7.9700e-003**	**21.9148**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.71158 / 1.04903	2.2442	0.0559	1.3500e-003	4.0457
Health Club	0.325287 / 0.19937	0.4265	0.0106	2.6000e-004	0.7689
High Turnover (Sit Down Restaurant)	4.4498 / 0.28403	4.7097	0.1453	3.4900e-003	9.3835
Manufacturing	3.145 / 0	3.2363	0.1027	2.4700e-003	6.5388
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.456078 / 0.287528	0.6017	0.0149	3.6000e-004	1.0818
Unrefrigerated Warehouse-No Rail	0.04625 / 0	0.0476	1.5100e-003	4.0000e-005	0.0962
Total		**11.2661**	**0.3310**	**7.9700e-003**	**21.9148**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	48.8417	2.8865	0.0000	121.0031
Unmitigated	48.8417	2.8865	0.0000	121.0031

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	8.96	1.8188	0.1075	0.0000	4.5060
Health Club	31.35	6.3638	0.3761	0.0000	15.7660
High Turnover (Sit Down Restaurant)	174.45	35.4118	2.0928	0.0000	87.7312
Manufacturing	16.86	3.4224	0.2023	0.0000	8.4789
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8.8	1.7863	0.1056	0.0000	4.4255
Unrefrigerated Warehouse-No Rail	0.19	0.0386	2.2800e-003	0.0000	0.0956
Total		**48.8417**	**2.8865**	**0.0000**	**121.0031**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	8.96	1.8188	0.1075	0.0000	4.5060
Health Club	31.35	6.3638	0.3761	0.0000	15.7660
High Turnover (Sit Down Restaurant)	174.45	35.4118	2.0928	0.0000	87.7312
Manufacturing	16.86	3.4224	0.2023	0.0000	8.4789
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	8.8	1.7863	0.1056	0.0000	4.4255
Unrefrigerated Warehouse-No Rail	0.19	0.0386	2.2800e-003	0.0000	0.0956
Total		**48.8417**	**2.8865**	**0.0000**	**121.0031**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Project Fossil Fuel Emissions Displacement

Project Fossil Fuel Displacement

Megawatt Project[1]	Operational Time[2]	Annual Hours of Generation[2]	Annual Kilowatt Hours	Heat Rate[3]	Btu Displaced[4]
0.3 MW	25 Percent	2,190 Hours	701,895 Kilowatt Hours	9,313	6,536,748,135

[1] *The Project is anticipated to generate 702 megawatts annually*

[2] *The Project is assumed to generate electricity 25 percent of the time available (2,190 hours annually).*

[3] *Heat Rate indicates the energy generator efficiency of existing fossil-fuel based energy generators. The heat rate of a power plant measures the amount of fuel used to generate one unit of electricity. Power plants with lower heat rates are more efficient than plants with higher heat rates. The CEC's "Updated Thermal Power Plant Efficiency Measures and Operational Characteristics for Production Cost Modeling" (2019) estimates heat rates and operating ranges for thermal power plants supplying energy to California. The average heat rate of power plants types are as follows:*
***Steam Boiler fueled by coal: 10,800 heat rate. **Steam Boiler fueled by natural gas: 10,200 heat rate. **Gas Turbine: 10,100 heat rate. **Combined natural gas Boiler and Turbine: 7,640 heat rate.*
Omitting steam boilers fueled by coal since so little of California's energy is derived from coal, the average heat rate = 9,313 [(10,100 + 10,200 + 7,640) ÷ 3 = 9,313]

[4] *702,000 anuual kilowatt hours x 9,313 average heat rate of existing fossil fuel generators = 6,536,748,135 Btu displaced from fossil fuel production.*
Energy consumption in California is predominately derived from natural gas (34.91%). Coal constitutes 3.30% of all energy-based energy consumption in California. Renewable sources (not including hydroelectric generators) account for 31.36% and nuclear power accounts for 9.05%. 9.25% of the state's energy comes from unspecificed nonrenewable sources and this percentage is added to the natural gas total for the purpose of this analysis.
2,281,978,774 of the displaced BTU is displaced natural gas consumption and 215,712,688 of the displaced BTU is displaced coal.
The heat content of coal is assumed at 24 million Btu per ton of coal burned. At a rate of 24 million Btu per ton of coal burned, the Project would displace 9 tons of burned coal annually.

Project Fossil Fuel Emissions Displacement

Fossil Fuel Emissions Displacement by Project[5]

Emissions from Natural Gas Generation

2281

Pounds Annually

NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
11	3	11	4	8	250,910		

Tons Annually (Metric Tons for GHGs)

NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
0.01	0.00	0.01	0.00	0.00	100.36		

Emissions from Coal Generation

9

Pounds Annually

NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
108	5	1	1	5	54,360	0	0

Tons Annually (Metric Tons for GHGs)

NOx	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
0.05	0.00	0.00	0.00	0.00	21.74	0.00	0.00

[5] *Source: Displaced emissions calculated by ECORP Consulting using U.S. EPA's AP-42 Fifth Edition Compilation of Air Emissions Factors 1995; 2015.*

Biological Resources Assessment

California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)

Mendocino County, California

Prepared for:

State of California Department of General Services
Real Estate Services Division

CLIENT REVIEW DRAFT

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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LIST OF ACRONYMS AND ABBREVIATIONS

BCC	Birds of Conservation Concern
BIOS	Biogeographic Information and Observation System
BO	Biological opinion
BRA	Biological resources assessment
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EFH	Essential Fish Habitat
ESA	Endangered Species Act
HCP	Habitat conservation plan
MBTA	Migratory Bird Treaty Act
MSL	Mean sea level
NCCP	Natural Community Conservation Plan
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
Project	California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
Section 404 Permit	Section 404 of the federal CWA
US 101	U.S. route 101
SSC	Species of Special Concern
SSURGO	Soil Survey Geographic
USACE	U.S. Army Corps of Engineers

LIST OF ACRONYMS AND ABBREVIATIONS

USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

At the request of State of California Department of General Services Real Estate Services Division, ECORP Consulting, Inc. has conducted a biological resources assessment (BRA) for the proposed California Conservation Corps Willits Center Project (Ukiah Center Relocation Project) (Project) located in Mendocino County, California. The purpose of the assessment was to collect information on the biological resources present within the Project site, and to determine potential biological constraints to Project activities.

1.1 Project Site Location

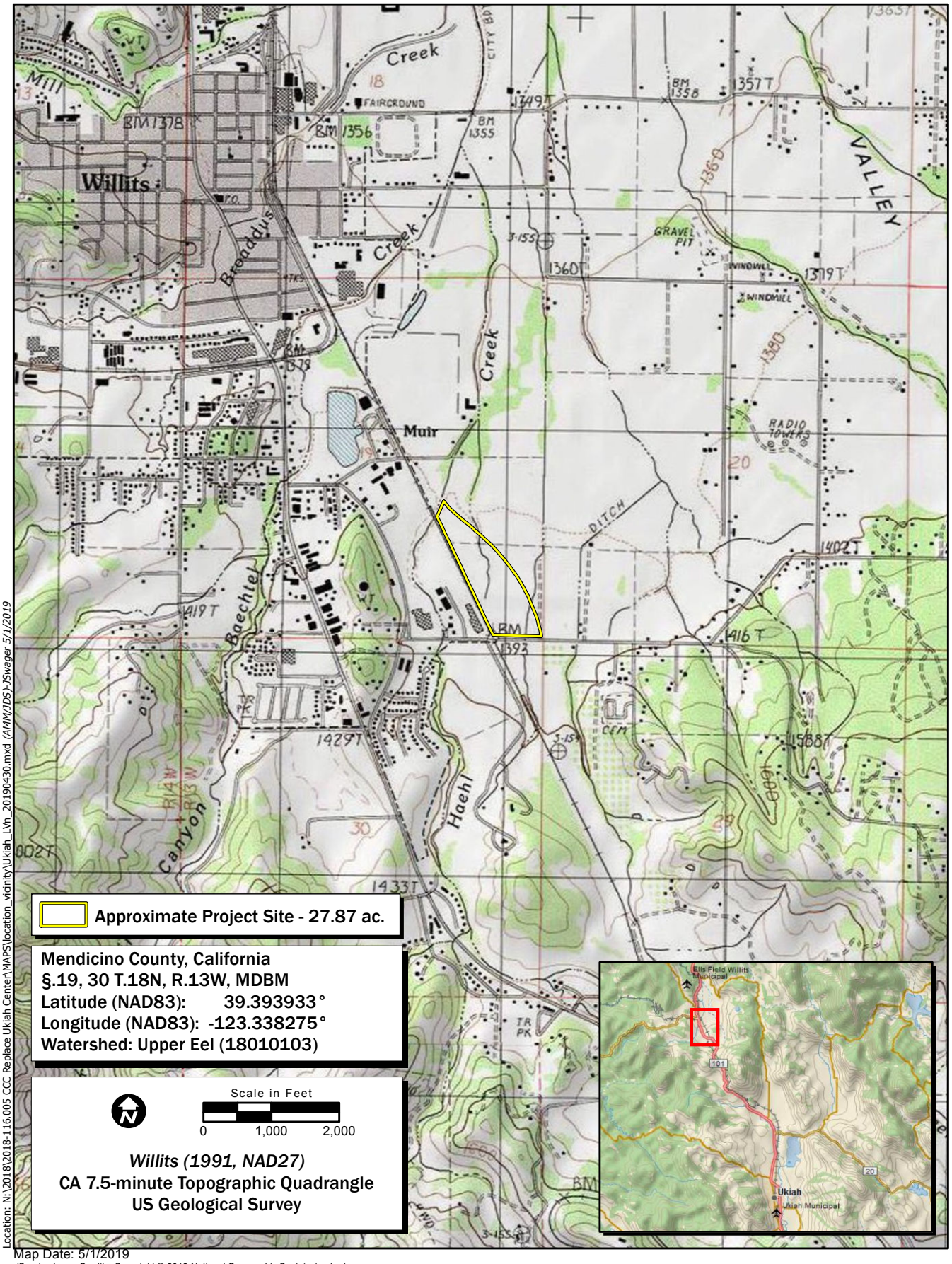
The ±27.87-acre Project site is located approximately one mile southeast of the City of Willits in Mendocino County, California. The Project site corresponds to a portion of Sections 19 and 30, Township 18 North, and Range 13 West (Mount Diablo Base and Meridian) of the "Willits, California" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1991) (Figure 1. *Project Location and Vicinity*). The approximate center of the Project site is located at 39.393933˚ and -123.338275˚ within the Upper Eel Watershed (Hydrologic Unit Code #18010103, Natural Resources Conservation Service [NRCS], USGS, and U.S. Environmental Protection Agency [USEPA] 2016).

1.2 Project Description

The proposed Project is the relocation of the Ukiah California Conservation Corps (CCC) Center to the Project site located in the City of Willits. The objective of the proposed Project is to construct a new, modern facility that will allow the CCC to better fulfill its mission and objectives in the region.

The current Ukiah Center has both structural and operational deficiencies that necessitate either major upgrade or replacement. An upgrade of the existing facility was considered in 2017; however, due to its dilapidated condition, it was subsequently determined a new facility was needed. To address this need, a new Willits Residential, Training, and Operations facility is proposed in the City of Willits (Figure 1). The proposed Project would house approximately 100 CCC members and include approximately 55,000 square feet of new building construction comprised of the following structures and facilities:

- Administration Building
- Dormitories
- Warehouse with Work Area
- Multi-Purpose Building with Kitchen and Dining Room
- Education Building,
- Recreation Building with Associated Playfields
- Solar Photovoltaic Array



Location: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\location_vicinity\Ukiah_LVn_20190430.mxd (AMM/JDS)-JSwager 5/1/2019

Map Date: 5/1/2019

iService Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed Copyright:(c) 2018 Garmin

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Figure 1. Project Location and Vicinity

2018-116.005 CCC Replace Ukiah Center

Additional site improvements include 101,000 square feet of paved surfaces, sidewalks, driveways, parking, and approximately 78,000 square feet of concrete paving for additional service, staging areas, and connecting walkways. Figure 2. *Site Plan* shows the location of the major proposed improvements.

1.3 Purpose of this Biological Resources Assessment

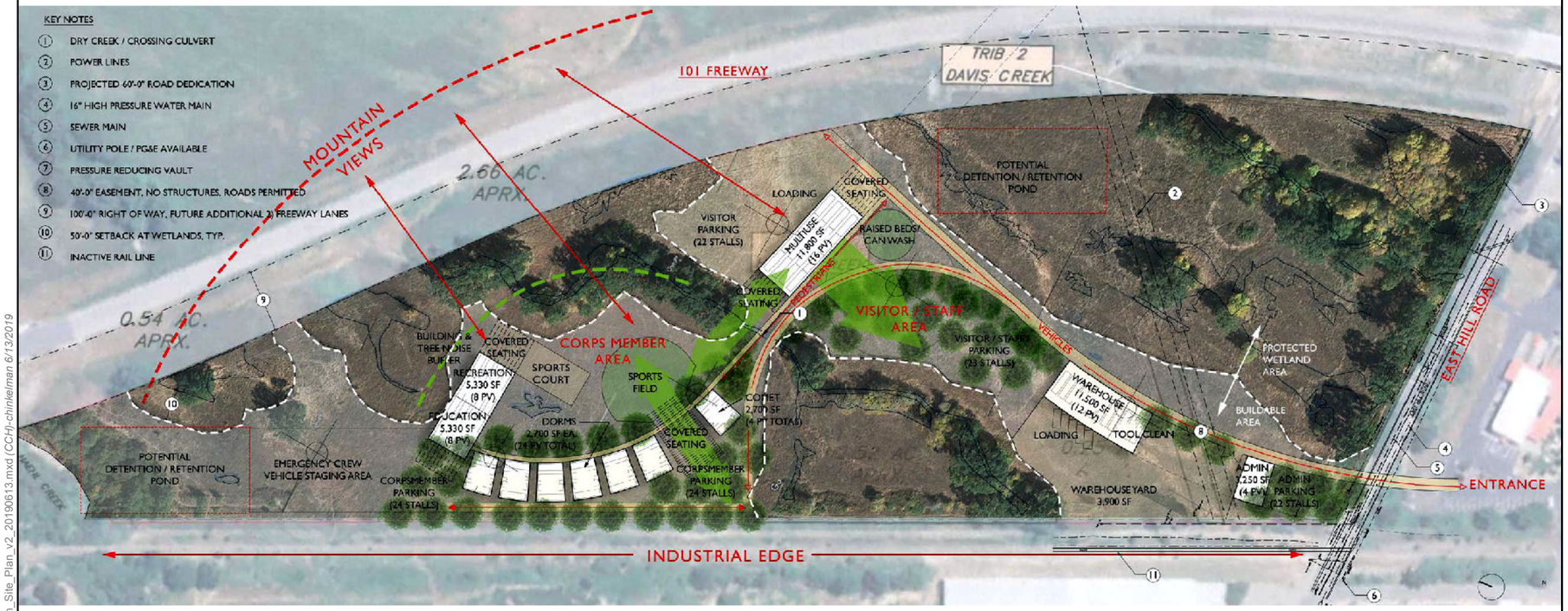
The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitat, and sensitive habitats such as wetlands within the Project site. This assessment does not include determinate field surveys conducted according to agency-promulgated protocols. The conclusions and recommendations presented in this report are based upon a review of the available literature and site reconnaissance.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- Are listed or candidates for future listing as threatened or endangered under the California ESA (CESA);
- Meet the definitions of endangered or rare under Section 15380 of the California Environmental Quality Act (CEQA) Guidelines;
- Are identified as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- Are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Rank [CRPR] 1 and 2);
- Are plants listed by CNPS as species about which more information is needed to determine their status (CRPR 3), and plants of limited distribution (CRPR 4);
- Are plants listed as rare under the California Native Plant Protection Act (NPPA, California Fish and Game Code, § 1900 et seq.); or
- Are fully protected in California in accordance with the California Fish and Game Code, §§ 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

Only species that fall into one of the above-listed groups were considered for this assessment. Birds identified as Birds of Conservation Concern (BCC) by the U.S. Fish and Wildlife Service (USFWS), without other special status, were not included in this analysis. Other species without special status that are sometimes found in database or literature searches were not included within this analysis.

A9 | CONCEPTUAL SITE LAYOUT



Map Date: 6/13/2019

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Scale in Feet
0 300

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Figure 2. Site Plan

2018-116.005 CCC Replace Ukiah Center

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2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The ESA protects plants and animals that are listed by the USFWS and the National Marine Fisheries Service (NMFS) as endangered or threatened. Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16 U.S. Code [USC] 1538). The ESA requires that at the same time the decision is made to list a species, the Secretary of the Interior must develop a recovery plan for the species and, with certain exceptions, designate the critical habitat of the species. Critical habitat consists of "the specific areas within the geographical area occupied by the species, at the time it is listed … on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection."

Section 7

Under Section 7 of the ESA, federal agencies are required to consult with the USFWS and/or NMFS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion (BO), the USFWS and/or NMFS reviews the BRA and may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species.

Section 10

When no discretionary action is being taken by a federal agency, but a project may result in the take of listed species, an incidental take permit under Section 10 of the ESA is necessary. The purpose of the incidental take permit is to authorize the take of federally listed species that may result from an otherwise lawful activity; not to authorize the activities themselves. In order to obtain an incidental take permit under Section 10, an application must be submitted that includes a Habitat Conservation Plan (HCP). In some instances, applicants, USFWS, and/or NMFS may determine that an HCP is necessary or prudent, even if a discretionary federal action will not occur. The purpose of the HCP planning process associated with the permit application is to ensure that adequate minimization and mitigation for impacts to listed species and/or their critical habitat will occur.

2.1.2 Magnuson-Stevens Fishery Conservation and Management Act

In accordance with the Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), federal agencies are required to consult with the NMFS for activities that may affect Essential Fish Habitat (EFH). EFH are the waters and substrate

necessary for fish spawning, breeding, feeding, or growth to maturity, and include several important components: adequate substrate; water quality; water quantity, depth, and velocity; channel gradient and stability; food; cover, and habitat complexity; space; access and passage; and habitat connectivity . The EFH consultation process is separate from ESA consultation, though the two often happen simultaneously through the Section 7 ESA biological assessment. The EFH consultation with NMFS may result in project conservation recommendations to avoid, reduce, or compensate impacts to EFH.

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 Code of Federal Regulations (CFR) part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. USFWS may authorizes take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

2.1.5 Federal Clean Water Act

The federal Clean Water Act's (CWA's) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into "Waters of the U.S." without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The USEPA also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

The alteration of a USACE federally authorized civil works project requires a permit pursuant to Section 408 (33 USC 408, Section 14 of the Rivers and Harbors Act of 1899). Projects with minimal impacts require approval by the USACE Sacramento District Construction Operations Group; however, projects with more substantial impacts may require USACE Headquarters review. Coordination with the Central Valley Flood Protection Board, who serve as the Non-Federal Sponsor, is required as a part of the process of obtaining a Section 408 permit.

2.2 State or Local Regulations

2.2.1 California Fish and Game Code

California Endangered Species Act

The CESA (California Fish and Game Code Sections 2050-2116) generally parallels the main provisions of the ESA, but unlike its federal counterpart, the CESA also applies the take prohibitions to species proposed for listing (called "candidates" by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with CDFW to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat.

Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of ESA and CESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under CESA and/or ESA. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFW prohibits any state agency from issuing incidental take permits for fully protected species. The CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

Native Plant Protection Act

The NPPA of 1977 was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW and provided in California Fish and Game Code §§ 1900-1913. The Fish and Wildlife Commission has the authority to designate native plants as "endangered" or "rare" and to protect endangered and rare plants from take. CESA of 1984 (California Fish

and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

California Native Birds

Several Sections (3800, 3513, and 3503) of the California Fish and Game Code specifically protect birds. Section 3800 protects birds of prey and states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the commission or a mitigation plan approved by CDFW for mining operations. Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird. Additionally, Subsection 3503.5 prohibits the take, possession, or destruction of any birds and their nests in the orders Strigiformes (owls) or Falconiformes (hawks and eagles). These provisions, along with the federal MBTA, serve to protect nesting native birds.

2.2.2 Species of Special Concern

SSC are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the ESA or CESA, or the California Fish and Game Code, but currently satisfy one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role;
- The species is listed as federally (but not state) threatened or endangered, or meets the state definition of threatened or endangered but has not formally been listed;
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status;
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with habitats that are threatened. Project-related impacts to SSC, state-threatened, or endangered species are considered "significant" under CEQA.

2.2.3 California Rare Plant Ranks

The CNPS maintains the *Inventory of Rare and Endangered Plants of California* (CNPS 2019), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, and/or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. The rank system was developed in collaboration with government, academia, non-

governmental organizations, and private sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the California Natural Diversity Database (CNDDB). The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere
- Rare Plant Rank 3 – a review list of plants about which more information is needed
- Rare Plant Rank 4 – a watch list of plants of limited distribution

Additionally, the CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (more than 80 percent of occurrences threatened/high degree and immediacy of threat)
- Threat Rank 0.2 – Moderately threatened in California (20-80 percent occurrences threatened/moderate degree and immediacy of threat)
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

Factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Rank, and differences in Threat Ranks do not constitute additional or different protection (CNPS 2019). Depending on the policy of the lead agency, substantial impacts to plants ranked 1A, 1B, or 2 are typically considered significant under CEQA Guidelines § 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 3 or 4.

2.2.4 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of stormwater runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region

that could affect the water of the state" (Water Code 13260(a)). Waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

2.2.5 California Environmental Quality Act

In accordance with CEQA Guidelines § 15380, a species not protected on a federal or state list may be considered rare or endangered if the species meets certain specified criteria. These criteria follow the definitions in the ESA and CESA and §§ 1900-1913 of the California Fish and Game Code, which deal with rare or endangered plants or animals. Section 15380 was included in the CEQA Guidelines primarily to deal with situations where a project under review may have a significant effect on a species that has not yet been listed by either USFWS or CDFW.

CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant and are particularly relevant to SSC. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant and when considered unavoidable/unmitigatable require lead agencies to prepare an Environmental Impact Report to thoroughly analyze and evaluate the impacts. Assessment of "impact significance" to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Specifically, § 15064.7 of CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on federally protected Waters of the U.S. including wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;

- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

Sensitive Natural Communities

Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. The CDFW maintains the *California Natural Communities List* (CDFW 2018), which provides a list of vegetation alliances, associations, and special stands as defined in the *Manual of California Vegetation* (Sawyer et al. 2009), along with their respective state and global rarity ranks. Natural communities with a state rarity rank of 1, 2, or 3 are considered sensitive natural communities. Depending on the policy of the lead agency, impacts to sensitive natural communities may be considered significant under CEQA.

Wildlife Movement/Corridors and Nursery Sites

CDFW's Biogeographic Information and Observation System (BIOS) database, the CDFW Mule Deer Range, identifies winter range, migration corridors, critical range, or critical fawning areas for mule deer (CDFW 2019a). For urban settings such as the Project, riparian vegetated stream corridors can also serve as wildlife movement corridors.

For the purpose of this analysis, both mule deer migration corridors and riparian stream corridors were assessed for their potential to support wildlife movement on the Project.

For the purpose of this analysis, nursery sites include, but are not limited to, concentrations of nest or den sites such as heron rookeries, bat maternity roosts, and mule deer critical fawning areas. This data is available through CDFW's BIOS database or as occurrence records in the CNDDB and is supplemented with the results of the field reconnaissance.

2.2.6 Local Plans and Ordinances

City of Willits General Plan

The Vision 2020 City of Willits General Plan revision was adopted 12 August 1992. There is a brief discussion of Biological Resources in Section 4.700 (City of Willits 1992). Possible biological impacts identified within the plan that are associated with future development include loss of sensitive plant communities, heritage tree removal, and damage to existing riparian corridors. Development in accordance with the Revised General Plan could also result in substantial tree removal, in the absence of ameliorative policy mechanisms. Finally, development along existing creeks and streams could adversely affect riparian plants and wildlife relying upon such streams for habitat area (City of Willits 1992).

Relevant mitigation measures provided in Section 4.730 include the following:

- 4.731 Site-specific environmental review of all residential, commercial, and industrial development proposals shall be required; extra scrutiny shall be given to projects along riparian corridors and in areas containing Valley Oak Woodland or other habitats or species of significance.
- 4.733 The City shall pass, by December 1993, an ordinance calling for the preservation of Valley Oaks and other trees of significance.
- 4.135 Revegetation of sites using native species may be required as a condition of approval for development projects.
- 4.736 The City shall conform to the California Department of Fish and Game (CDFG) policy of no net loss of wetlands in the review of proposed development projects.

Although the mitigation measures call for the implementation of a tree ordinance by 1993, no such ordinance is currently included in the City of Willits Municipal Code (Willits Municipal Code 1979). There is also no current tree ordinance for the County of Mendocino.

3.0 METHODS

3.1 Literature Review

The following resources were reviewed to determine the special-status species that have been documented within or in the vicinity of the Project site. Results of the species searches are included as Attachment A.

- CDFW CNDDB data for the "Willits, California" 7.5-minute quadrangle as well as the eight surrounding USGS quadrangles (CDFW 2019b);
- USFWS Information, Planning, and Consultation System Resource Report List for the Project site (USFWS 2019a);
- CNPS' electronic Inventory of Rare and Endangered Plants of California was queried for the "Willits, California" 7.5-minute quadrangles and the eight surrounding quadrangles (CNPS 2019);

- CDFW BIOS query of range maps for potentially occurring special-status species (CDFW 2019b); and
- USFWS Threatened & Endangered Species Active Critical Habitat Report (USFWS 2019b).

Additional background information was reviewed regarding the documented or potential occurrence of special-status species within or near the Project site from the following sources:

- The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000-2004 (CDFG 2005);
- California Bird SSC (Shuford and Gardali 2008);
- Amphibian and Reptile SSC in California (Thompson et al. 2016);
- Mammalian SSC in California (Williams 1986);
- California's Wildlife, Volumes I-III (Zeiner, et al. 1988, 1990a, 1990b); and
- A Guide to Wildlife Habitats of California (Mayer and Laudenslayer Jr., eds. 1988).

3.2 Site Reconnaissance

ECORP Biologists Carly Rich and Krissy Walker-Berry conducted the site reconnaissance visit on May 19, 2019. The Project site was systematically surveyed on foot using a Trimble GPS unit with sub-meter accuracy, topographic maps, and aerial imagery to ensure total site coverage. Special attention was given to identifying those portions of the Project site with the potential to support special-status species and sensitive habitats. During the field survey, biological communities occurring onsite were characterized and the following biological resource information was collected:

- Vegetation communities within the Project site;
- Plant and animal species directly observed;
- Animal evidence (e.g., scat, tracks);
- Existing active raptor nest locations;
- Burrows and any other special habitat features; and
- Representative Project site photographs (Attachment B).

In addition, soil types were identified using the NRCS Web Soil Survey (NRCS 2019a).

3.3 Additional Surveys Conducted

In addition to the reconnaissance survey conducted for the Project site, a focused special-status plant survey for North Coast semaphore grass (*Pleuropogon hooverianus*) was conducted. Additionally, an

aquatic resources delineation was conducted for the entire Project site; a description of these surveys is below.

3.3.1 Focused Special-Status Plant Survey for North Coast Semaphore Grass

A focused special-status plant survey was conducted by ECORP botanist Krissy Walker-Berry and biologist Carly Rich on May 19, 2019. Results of the guideline-level special-status plant survey are included in this report and discussed in Section 4.6.

3.3.2 Aquatic Resources Delineation

An Aquatic Resources Delineation was conducted for the site on November 8, 2018 by LSA Associates (LSA Associates 2018; Attachment C). Section 4.3 provides a summary of the results of the Aquatic Resources Delineation. Descriptions of the wetland features can be found in Attachment C.

3.4 Special-Status Species Considered for the Project

Based on species occurrence information from the literature review and observations in the field, a list of special-status plant and animal species that have the potential to occur within the Project site was generated and is provided in Section 4.6. Only special-status species as defined in Section 1.3 were included in this analysis. Each of these species' potential to occur within the Project site was assessed based on the following criteria:

- **Present** - Species was observed during the site visit or is known to occur within the Project site based on documented occurrences within the CNDDB or other literature.
- **Potential to Occur** - Habitat (including soils and elevation requirements) for the species occurs within the Project site.
- **Low Potential to Occur** - Marginal or limited amounts of habitat occurs, and/or the species is not known to occur within the vicinity of the Project site based on CNDDB records and other available documentation.
- **Absent** - No suitable habitat (including soils and elevation requirements) and/or the species is not known to occur within the vicinity of the Project site based on CNDDB records and other documentation.

4.0 RESULTS

4.1 Site Characteristics and Land Use

The Project site is located west of U.S. Route 101 (US 101) and north of East Hill Road, one mile southeast of the City of Willits in Mendocino County, California. The Project site and surrounding areas are characterized by rural properties and cattle grazing to the east and northeast, a hospital to the south, and light residential and commercial uses to the southwest and northwest. The Project site is composed of

generally flat terrain. Elevation within the Project site ranges from approximately 1,385 to 1,390 feet above mean sea level (MSL).

4.2 Vegetation Communities and Land Cover Types

During the field visit, two land cover types were identified within the Project site. These are annual grassland and riparian. These land cover types are described below.

4.2.1 Annual Grassland

The majority of the Project site can be characterized as annual grassland. It is predominantly composed of naturalized nonnative annual grasses with a mix of native forbs and grasses. The dominant species include ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), Medusahead grass (*Elymus caput-medusae*), cut-leaved geranium (*Geranium dissectum*), and common vetch (*Vicia sativa*).

4.2.2 Riparian

The riparian portions of the site are generally located along the creek tributaries and the southern project boundary. The overstory consists of Oregon ash (*Fraxinus latifolia*), black oak (*Quercus kelloggii*), Arroyo willow (*Salix lasiolepis*), and California bay (*Umbellularia californica*). The shrub layer is dominated by Himalayan blackberry (*Rubus armeniacus*) and poison oak (*Toxicodendron diversilobus*). The forb and grass understory is dominated by Bolander's sedge (*Carex bolanderi*), Dudley's sedge (*Carex densa*), soft rush (*Juncus effusus*), pennyroyal (*Mentha pulegium*), and Kentucky bluegrass (*Poa pratensis*).

4.3 Potential Waters of the U.S.

A total of 1.07 acres of potential Waters of the U.S./wetlands were mapped within the Project site during the Aquatic Resources Delineation (LSA Associates 2018; Attachment C). The USACE concurred with the extent of Waters of the U.S./wetlands on the Project site on February 21, 2019 (Attachment D). Water of the U.S./wetlands mapped within the Project site include adjacent seasonal wetlands, seasonal wetland depressions, and non-wetland waters (Figure 3. *Water of the U.S./Wetlands Delineation)*. The total acreage of Waters of the U.S./wetlands is summarized in Table 1 and descriptions of the features are included in Attachment C.

Table 1. Water of the U.S./Wetlands within the Project Site.

Type	Acres
Wetlands	
Adjacent Seasonal Wetlands	0.37
Seasonal Wetland Depressions	0.50
Other Waters	
Non-Wetland Waters	0.20
Total	**1.07**

Figure 3. Waters of the U.S./ Wetlands Delineation

Map Features

- Project Area - 27.81 acres
- Reference Coordinate (NAD83)

Sample Point Type

- Non-wetland
- Upland
- Wetland

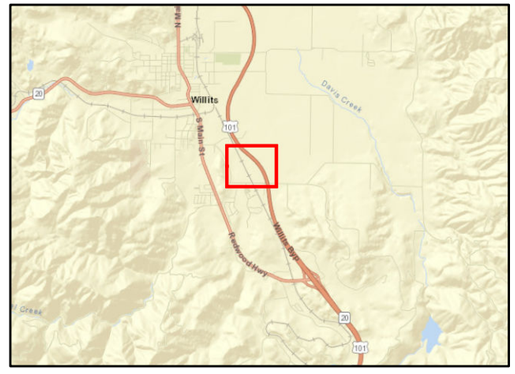
Aquatic Resources (1.07 acres)*[1]

- Adjacent Seasonal Wetlands - 0.37 acre
- Seasonal Wetland Depressions - 0.50 acre
- Non-Wetland Waters - 0.20 acre

[1] *Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.*

** The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.*

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



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ECORP: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\jurisdictional_delineation\usace_delineationlv1\Ukiah_ARD_20190515.mxd(AMM) - amyers 5/15/2019

2018-116.005 CCC Replace Ukiah Center

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Scale in Feet
0 250

Photo Source: NAIP 2016
Boundary Source: LSA
Delineator(s): LSA
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Map Date: 5/15/2019

4.4 Soils

According to the Soil Survey Geographic (SSURGO) Database for Mendocino County, California (NRCS 2019a), two soil units, or types, have been mapped within the Project site (Figure 4. *Natural Resources Conservation Service Soil Types*):

- 128 – Gielow sandy loam, 0 to 5 percent slopes; and
- 2160 – Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes, low ffd.

Gielow sandy loam, 0 to 5 percent slopes (128) is partially composed of Gielow, which are considered hydric when occurring in alluvial flats and flood plains, and Clear Lake, which are considered hydric when occurring on basin floors. The remaining soil type does not contain hydric components (NRCS 2019b).

4.5 Wildlife

Habitats within the Project site support a variety of common wildlife species such as red-shouldered hawk (*Buteo lineatus*), common raven (*Corvus corax*), and acorn woodpecker (*Melanerpes formicivorus*), among others. A detailed list of wildlife species observed in the vicinity of the Project site during the May 2019 site visit is included as Attachment E.

4.6 Evaluation of Species Identified in the Literature Search

A list of all plant and wildlife species identified in the literature search as potentially occurring within the Project site is provided in Attachment F. Attachment F includes the listing status for each species, a brief habitat description, and a determination on the potential to occur in the Project site. Table 2 includes the status and a brief description of each species with potential to occur on the Project site. Several species and sensitive habitat types came up in the database and literature searches (Attachments A, F) but are not included in Table 2. These species and habitat types were not included in Table 2 because 1) the species have been formally delisted, 2) the species are only tracked by the CNDDB and possess no special-status, 3) the habitats required to support the species do not occur on the Project site, 4) the Project site is outside the known range of the species, or 5) the identified sensitive habitats are not located within the Project site. These species and habitats are not discussed further in this report. One mammal species (ringtail [*Bassariscus astutus*]) was added to the analysis. Ringtail has been added because it is known to occur in the area, but it does not typically appear in the database and literature searches.

Map Features

Approximate Project Area - 27.87 acres

Series Number - Series Description

128 - Gielow sandy loam, 0 to 5 percent slopes

2160 - Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes, low ffd

Base Source: NAIP 2016

ECORP: N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\soils_and_geology\soils\Ukiah_NRCS_20190513.mxd (AMM)-amyers 5/13/2019

Map Date: 5/13/2019

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Scale in Feet
0 500

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Figure 4. NRCS Soil Types

2018-116.005 CCC Replace Ukiah Center

Table 2. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Plants						
Grass alisma *(Alisma gramineum)*	–	–	2B.2	Assorted shallow freshwater marshes and swamps (1,280'–5,906').	June–August	Potential to occur. Suitable habitat present onsite.
Humboldt County milkvetch *(Astragalus agnicidus)*	–	CE	1B.1	Openings, disturbed areas, and sometimes roadsides in broadleafed upland forest and North Coast coniferous forest (394'–2,625').	April–September	Low potential to occur. Marginal habitat present onsite.
Rattan's milk-vetch *(Astragalus rattanii* var. *rattanii)*	–	–	4.3	Gravelly streambanks in chaparral, cismontane woodland, and lower montane coniferous forest (98'–2,707').	April–July	Low potential to occur. Marginal habitat present onsite.
Watershield *(Brasenia schreberi)*	–	–	2B.3	Freshwater marshes and swamps (98'–7,218').	June–September	Potential to occur. Suitable habitat present onsite.
Deep-scarred cryptantha *(Cryptantha excavata)*	–	–	1B.1	Sandy or gravelly soils in cismontane woodland (328'–1,640').	April–May	Low potential to occur. Marginal habitat present onsite.
Mountain lady's slipper *(Cypripedium montanum)*	-	-	4.2	Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest (607'-7,300').	March-August	Potential to occur. Suitable habitat present onsite.
Roderick's fritillary *(Fritillaria roderickii)*	–	CE	1B.1	Coastal bluff scrub, coastal prairie, and valley and foothill grassland (49'–1,312').	March–May	Potential to occur. Suitable habitat present onsite.
Pacific gilia *(Gilia capitata* ssp. *pacifica)*	–	–	1B.2	Coastal bluff scrub, openings in chaparral, coastal prairie, and valley and foothill grassland (16'–5,463').	April–August	Potential to occur. Suitable habitat present onsite.
Congested–headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	–	–	1B.2	Sometimes roadsides, and valley and foothill grassland (66'–1,837').	April–November	Potential to occur. Suitable habitat present onsite.
Glandular western flax *(Hesperolinon adenophyllum)*	–	–	1B.2	Usually serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland (492'–4,314').	May–August	Low potential to occur. Marginal habitat present onsite.

Table 2. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Thin–lobed horkelia (*Horkelia tenuiloba*)	–	–	1B.2	Mesic, sandy openings of broadleafed upland forest, chaparral, and valley and foothill grassland (164'–1,640').	May–July (August)	Low potential to occur. Marginal habitat present onsite.
Burke's goldfields *(Lasthenia burkei)*	FE	CE	1B.1	Mesic sites within meadows and seeps and vernal pools (49'–1,969')	April–June	Potential to occur. Suitable habitat present onsite.
Contra Costa Goldfields *(Lasthenia conjugens)*	FE	–	1B.1	Mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland, and vernal pools (0'–1,542').	March–June	Potential to occur. Suitable habitat present onsite.
Baker's meadowfoam *(Limnanthes bakeri)*	–	CR	1B.1	Meadows and seeps, freshwater marshes and swamps, vernally mesic valley and foothill grassland, and vernal pools (574'–2,986').	April–May	Potential to occur. Suitable habitat present onsite.
Milo Baker's lupine (*Lupinus milo-bakeri*)	–	CT	1B.1	Cismontane woodland often along roadsides and valley and foothill grassland (1,296'–1,411').	June–September	Potential to occur. Suitable habitat present onsite.
Baker's navarretia *(Navarretia leucocephala* ssp. *bakeri)*	–	–	1B.1	Vernal pools and mesic areas within cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (16'–5,709').	April–July	Potential to occur. Suitable habitat present onsite.
Gairdner's yampah *(Perideridia gairdneri* ssp. *gairdneri)*	–	–	4.2	Vernal pools and vernally mesic areas in broadleafed upland forest, chaparral, coastal prairie, and valley and foothill grassland (0'–2,001').	June–October	Potential to occur. Suitable habitat present onsite.
White-flowered rein orchid *(Piperia candida)*	–	–	1B.2	Broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest, sometimes on serpentinite soils (98'-4,298').	(March) May-September	Potential to occur. Suitable habitat present onsite.
Mayacamas popcornflower *(Plagiobothrys lithocaryus)*	–	–	1A	Mesic areas in chaparral, cismontane woodland, and valley and foothill grassland (984'–1,476').	April–May	Potential to occur. Suitable habitat present onsite.

Table 2. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Davy's semaphore grass *(Pleuropogon californicus* var. *davyi)*	–	–	4.3	Cismontane woodland, lower montane coniferous forest, and meadows and seeps (492'–2,001').	March–June	Potential to occur. Suitable habitat present onsite.
North Coast semaphore grass *(Pleuropogon hooverianus)*	–	CT	1B.1	Open and mesic areas in broadleafed upland forest, meadows and seeps, and North Coast coniferous forest (33'–2,201').	April–June	Present. There is a documented CNDDB occurrence of this species onsite and this species was observed and mapped during the site visit.
Nuttall's ribbon-leaved pondweed *(Potamogeton epihydrus)*	–	–	2B.2	Assorted shallow freshwater marshes and swamps (1,211'–7,126').	(June) July–September	Potential to occur. Suitable habitat present onsite.
Two-fork clover (Showy Indian clover) *(Trifolium amoenum)*	FE	–	1B.1	Coastal bluff scrub and valley and foothill grassland, sometimes in serpentinite substrates (16'–1,362').	April–June	Potential to occur. Suitable habitat present onsite.
Santa Cruz clover *(Trifolium buckwestiorum)*	–	–	1B.1	Gravelly sites and on the margins of broadleafed upland forest, cismontane woodland, and coastal prairie (344'–2,001').	April–October	Low potential to occur. Marginal habitat present onsite.
Oval–leaved viburnum *(Viburnum ellipticum)*	–	–	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities (705'–4,593).	May–June	Low potential to occur. Marginal habitat present onsite.
Amphibians						
Foothill yellow-legged frog (*Rana boylii*)	-	CC	SSC	Foothill yellow-legged frogs can be active all year in warmer locations, but may become inactive or hibernate in colder climates. At lower elevations, foothill yellow-legged frogs likely spend most of the year in or near streams. Adult frogs, primarily males, will gather along main-stem rivers during spring to breed.	May–October	Potential to occur. Suitable habitat present onsite.

Table 2. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Red-bellied newt (*Taricha rivularis*)	-	-	SSC	Inhabits primarily redwood forest, but also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Requires rapid streams with rocky substrate for breeding and egg-laying.	February-November	Potential to occur. Suitable habitat present onsite.
Reptiles						
Northwestern pond turtle (*Actinemys marmorata*)	-	-	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches.	April-September	Potential to occur. Suitable habitat present onsite.
Birds						
Sharp-shinned hawk *(Accipiter striatus)*	-	-	CDFW WL	Nests in trees in most forest types with at least some conifers. In California, nesting occurs in Sierra Nevada and Cascade Ranges (foothills to tree line) and northwestern coastal range.	nest (April-August); winter CV (September-April)	Low potential to occur. Winter foraging habitat present onsite, no suitable nesting habitat.
Yellow-breasted chat (*Icteria virens*)	-	-	SSC	In California, breeds in Klamath Mountains, inner Northern Coast Range south to San Francisco Bay, locally distributed from Santa Clara Co. south to San Diego Co. Sacramento and San Joaquin Valleys, along west slope of Sierra Nevada from the Feather River to Kern River, Mono and Inyo Cos. In the west, nesting habitat includes dense riparian and shrubby.	May-August	Potential to occur. Suitable habitat present onsite.

Table 2. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Yellow warbler (*Setophaga petechia*)	-	-	SSC, BCC	Breeding range includes most of California, except Central Valley (isolated breeding locales on Valley floor, Stanislaus, Colusa, and Butte counties), Sierra Nevada range above tree line, and southeastern deserts. Nesting habitat includes riparian vegetation near streams and meadows. Winters in Mexico south to South America.	May-August	Potential to occur. Suitable habitat present onsite.
Mammals						
American badger *(Taxidea taxus)*	-	-	SSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Any season	Low potential to occur. Marginal suitable habitat present onsite.
Ringtail (*Bassariscus astutus*)	-	CFP	-	Most often found in riparian corridors in forested, shrubby habitats. Dens in rock outcrops, hollow trees and snags at low to middle elevations. Its range includes the North and South Coast Ranges, Sierra Nevada, Cascades, and the mountainous areas of the Mojave Desert.	Any season	Potential to occur. Suitable habitat present onsite.
Townsend's big-eared bat *(Corynorhinus townsendii)*	-	-	SSC	Caves, mines, buildings, rock crevices, trees.	April-September	Low potential to occur. Marginal habitat present onsite.

Status Codes:

ESA	Endangered Species Act
CESA	California Endangered Species Act
FE	ESA listed, Endangered.
FT	ESA listed, Threatened.
BCC	USFWS Bird of Conservation Concern
CFP	California Fish and Game Code Fully Protected Species
CE	CESA or NPPA listed, Endangered.
CT	CESA or NPPA listed, Threatened.
CC	Candidate for CESA listing as Endangered or Threatened.
CR	CESA- or NPPA-listed, Rare.
CDFW WL	CDFW Watch List
SSC	CDFW Species of Special Concern
1B	California Rare Plant Ranks (CRPRs)/Rare or Endangered in California and elsewhere.
2B	CRPR /Rare or Endangered in California, more common elsewhere.
4	CRPR /Plants of Limited Distribution - A Watch List.
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

4.6.1 Plants

There are 32 special-status vascular plant species that were identified as having the potential to occur within the Project site based on the literature review (Table 2). Upon further analysis and after the reconnaissance site visit, seven species were determined to be absent from the Project site due to the lack of suitable habitat or being outside of the elevation range of that species (Table 2). No further discussion of these species is provided in this analysis. A brief description of the remaining 24 species that have the potential to occur within the Project site are presented below.

Grass Alisma

Grass alisma (*Alisma gramineum*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 2B.2 species. This species is an aquatic herbaceous rhizomatous perennial that occurs in assorted shallow freshwater marshes and swamps (CNPS 2019). Grass alisma blooms from June to August and is known to occur at elevations ranging from 1,280 to 5,906 feet above MSL (CNPS 2019). The current range of this species in California includes Lassen, Mendocino, Modoc, and Siskiyou counties (CNPS 2019).

There are two CNDDB documented occurrences of grass alisma within five miles of the Project site (CDFW 2019b). The wetlands within the Project site provide suitable habitat for this species. Grass alisma has potential to occur onsite.

Humboldt County Milkvetch

Humboldt County milkvetch (*Astragalus agnicidus*) is not listed pursuant to the ESA, but is listed as endangered pursuant to the CESA and is designated as a CRPR 1B.1 species. This species is an herbaceous perennial that occurs in openings, disturbed areas, and sometimes roadsides in broadleafed upland forest and North Coast coniferous forest (CNPS 2019). Humboldt County milkvetch blooms from April to September and is known to occur at elevations ranging from 394 to 2,625 feet above MSL (CNPS 2019). Humboldt County milkvetch is endemic to California; the current range of this species includes Humboldt and Mendocino counties (CNPS 2019).

There are no CNDDB documented occurrences of Humboldt County milkvetch within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities within the Project site provides marginal suitable habitat for this species. Humboldt County milkvetch has low potential to occur onsite.

Rattan's Milkvetch

Rattan's milkvetch (*Astragalus rattanii* var. *rattanii*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 4.3 species. This species is an herbaceous perennial that occurs along gravelly streambanks in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS 2019). Rattan's milkvetch blooms from April to July, and is known to occur at elevations ranging from 98 to 2,707 feet above MSL (CNPS 2019). Rattan's milkvetch is endemic to California; the current range of this species includes Colusa, Glenn, Humboldt, Lake, Mendocino, Plumas, Sonoma, Tehama, and Trinity counties (CNPS 2019).

There are no CNDDB documented occurrences of Rattan's milkvetch within five miles of the Project site (CDFW 2019b). However, the wetlands within the Project site provide marginal suitable habitat for this species. Rattan's milkvetch has low potential to occur onsite.

Watershield

Watershield (*Brasenia schreberi*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 2B.3 species (CNPS 2019). This species is an aquatic herbaceous rhizomatous perennial that occurs usually in freshwater marshes and swamps (CNPS 2019). Watershield blooms from June through September and is known to occur from 98 to 7,218 feet above MSL (CNPS 2019). The current range for watershield in California includes Butte, Calaveras, El Dorado, Fresno, Kern, Lake, Lassen, Mendocino, Merced, Nevada, Plumas, Sacramento, Shasta, Sierra, Siskiyou, San Joaquin, Sonoma, Sutter, Tehama, Trinity, Tulare, and Tuolumne counties. Its presence in Butte and Kern counties is uncertain (CNPS 2019).

There are no CNDDB documented occurrences of watershield within five miles of the Project site (CDFW 2019b). However, the wetlands within the Project site provide suitable habitat for this species. Watershield has potential to occur onsite.

Deep-Scarred Cryptantha

Deep-scarred cryptantha (*Cryptantha excavata*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs on sandy or gravelly substrates in cismontane woodland (CNPS 2019). Deep-scarred cryptantha blooms from April to May and is known to occur at elevations ranging from 328 to 1,640 feet above MSL (CNPS 2019). Deep-scarred cryptantha is endemic to California; its current range includes Colusa, Lake, Mendocino, and Yolo counties (CNPS 2019).

There are no CNDDB documented occurrences of deep-scarred cryptantha within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities within the Project site provide marginal suitable habitat for this species. Deep-scarred cryptantha has low potential to occur onsite.

Mountain Lady's Slipper

Mountain lady's-slipper (*Cypripedium montanum*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 4.2 species. This species is an herbaceous perennial rhizome that occurs in broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest, and cismontane woodland (CNPS 2019). Mountain lady's slipper blooms between March and August and is known to occur at elevations ranging from 607 to 7,300 feet above MSL (CNPS 2019). The current range for Mountain lady's slipper in California includes Del Norte, Glenn, Humboldt, Madera, Mendocino, Modoc, Mariposa, Plumas, Santa Cruz, Shasta, Sierra, Siskiyou, San Mateo, Sonoma, Tehama, Trinity, and Tuolumne counties. Its distribution is uncertain, but presumed extirpated if once present in Santa Cruz and San Mateo counties (CNPS 2019).

There are no CNDDB documented occurrences of mountain lady's-slipper within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities within the Project site provide suitable habitat for this species. Mountain lady's-slipper has potential to occur onsite.

Roderick's Fritillary

Roderick's fritillary (*Fritillaria roderickii*) is not listed pursuant to the ESA, but is listed as endangered pursuant to the CESA and is designated as a CRPR 1B.1 species. This species is an herbaceous bulbiferous perennial that occurs in coastal bluff scrub, coastal prairie, and valley and foothill grassland (CNPS 2019). Roderick's fritillary blooms from March to May and is known to occur at elevations ranging from 49 to 1,312 feet above MSL (CNPS 2019). Roderick's fritillary is endemic to California; the current range of this species includes Mendocino and Sonoma counties (CNPS 2019).

There are no CNDDB documented occurrences of Roderick's fritillary within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities within the Project site provide suitable habitat for this species. Roderick's fritillary has potential to occur onsite.

Pacific Gilia

Pacific gilia (*Gilia capitata* ssp. *pacifica*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in coastal bluff scrub, openings in chaparral, coastal prairie, and valley and foothill grassland (CNPS 2019). Pacific gilia blooms from April to August and is known to occur at elevations ranging from 16 to 5,463 feet above MSL (CNPS 2019). The current range for Pacific gilia in California includes Del Norte, Humboldt, Mendocino, and Sonoma counties (CNPS 2019).

There is one CNDDB documented occurrence of Pacific gilia within five miles of the Project site (CDFW 2019b). The annual grassland community within the Project site provides suitable habitat for this species. Pacific gilia has potential to occur onsite.

Congested-Headed Hayfield Tarplant

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs sometime on roadsides, and often in valley and foothill grassland (CNPS 2019). Congested-headed hayfield tarplant blooms from April through November and is known to occur at elevations ranging from 66 to 1,837 feet above MSL (CNPS 2019). Congested-headed hayfield tarplant is endemic to California; the current range of this species includes Lake, Mendocino, Marin, San Francisco, San Mateo, and Sonoma counties (CNPS 2019).

There are no CNDDB documented occurrences of congested-headed hayfield tarplant within five miles of the Project site (CDFW 2019b). However, the annual grassland community within the Project site provides suitable habitat for this species. Congested-headed hayfield tarplant has potential to occur onsite.

Glandular Western Flax

Glandular western flax (*Hesperolinon adenophyllum*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, and valley and foothill grassland, usually in serpentinite soils (CNPS 2019). Glandular western flax blooms from May to August and is known to occur at elevations ranging from 492 to 4,314 feet above MSL (CNPS 2019). Glandular western flax is endemic to California; the current range of this species includes Humboldt, Lake, and Mendocino counties. Its distribution is uncertain, but presumed extirpated if once present in Humboldt County (CNPS 2019).

There are three CNDDB documented occurrences of glandular western flax within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities within the Project site provide marginal suitable habitat for this species. Glandular western flax has low potential to occur onsite.

Thin-Lobed Horkelia

Thin-lobed horkelia (*Horkelia tenuiloba*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in mesic, sandy openings within broadleafed upland forest, chaparral, and valley and foothill grassland (CNPS 2019). Thin-lobed

horkelia blooms from May through August and is known to occur at elevations ranging from 164 to 1,640 feet above MSL (CNPS 2019). Thin-lobed horkelia is endemic to California; the current range of this species includes Mendocino, Marin, and Sonoma counties (CNPS 2019).

There are no CNDDB documented occurrences of thin-lobed horkelia within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities within the Project site provide marginal suitable habitat for this species. Thin-lobed horkelia has low potential to occur onsite.

Burke's Goldfields

Burke's goldfields (*Lasthenia burkei*) is listed as endangered pursuant to both the ESA and CESA, and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in mesic meadows and seeps and vernal pools (CNPS 2019). Burke's goldfields blooms between April and June and is known to occur at elevations ranging from 49 to 1,969 feet above MSL (CNPS 2019). Burke's goldfields is endemic to California; its current range includes Lake, Mendocino, Napa, and Sonoma counties (CNPS 2019).

There are no CNDDB documented occurrences of Burke's goldfields within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Burke's goldfields has potential to occur onsite.

There is no critical habitat for this species mapped within the Project site.

Contra Costa Goldfields

Contra Costa goldfields (*Lasthenia conjugens*) is listed as endangered pursuant to the ESA, but not listed pursuant to the CESA, and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland, and vernal pools (CNPS 2019). Contra Costa goldfields blooms between March and June and is known to occur at elevations ranging from 0 to 1,542 feet above MSL (CNPS 2019). Contra Costa goldfields is endemic to California; its current range includes Alameda, Contra Costa, Mendocino, Monterey, Marin, Napa, Santa Barbara, Santa Clara, Solano, and Sonoma counties. It is likely extirpated from Mendocino, Santa Barbara, and Santa Clara counties (CNPS 2019).

There are no CNDDB documented occurrences of Contra Costa goldfields within five miles of the Project site (CDFW 2019b). However, the annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Contra Costa goldfields has potential to occur onsite.

There is no critical habitat for this species mapped within the Project site.

Baker's Meadowfoam

Baker's meadowfoam (*Limnanthes bakeri*) is not listed pursuant to the ESA, but is listed as rare pursuant to the CESA and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in meadows and seeps, freshwater marshes and swamps, vernally mesic valley and foothill grassland, and

vernal pools (CNPS 2019). Baker's meadowfoam blooms from April to May and is known to occur at elevations ranging from 574 to 2,986 feet above MSL (CNPS 2019). Baker's meadowfoam is endemic to California; the current range of this species includes Mendocino County (CNPS 2019).

There are 11 CNDDB documented occurrences of Baker's meadowfoam within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Baker's meadowfoam has potential to occur onsite.

Milo Baker's Lupine

Milo Baker's lupine (*Lupinus milo-bakeri*) is not listed pursuant to the ESA, but is listed as threatened pursuant to the CESA and is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in cismontane woodland often along roadsides, and valley and foothill grassland (CNPS 2019). Milo Baker's lupine blooms from June to September and is known to occur at elevations ranging from 1,296 to 1,411 feet above MSL (CNPS 2019). Milo Baker's lupine is endemic to California; the current range of this species includes Colusa and Mendocino counties (CNPS 2019).

There are no CNDDB documented occurrences of Milo Baker's lupine within five miles of the Project site (CDFW 2019b). However, the annual grassland community within the Project site provides suitable habitat for this species. Milo Baker's lupine has potential to occur onsite.

Baker's Navarretia

Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in vernal pools and mesic areas within cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (CNPS 2019). Baker's navarretia blooms from April to July and is known to occur at elevations ranging from 16 to 5,709 feet above MSL (CNPS 2019). Baker's navarretia is endemic to California; the current range of this species includes Colusa, Glenn, Lake, Lassen, Mendocino, Marin, Napa, Solano, Sonoma, Sutter, Tehama, and Yolo counties (CNPS 2019).

There are five CNDDB documented occurrences of Baker's navarretia within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Baker's navarretia has potential to occur onsite.

Gairdner's Yampah

Gairdner's yampah (*Perideridia gairdneri*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 4.2 species. This species is an herbaceous perennial that occurs in vernal pools and vernally mesic areas of broadleafed upland forest, chaparral, coastal prairie, and valley and foothill grassland (CNPS 2019). Gairdner's yampah blooms from June to October and is known to occur at elevations ranging from 0 to 2,001 feet above MSL (CNPS 2019). Gairdner's yampah is endemic to California; the current range of this species includes Contra Costa, Kern, Los Angeles, Mendocino, Monterey, Marin, Napa, Orange, San Benito, Santa Clara, Santa Cruz, San Diego, San Luis Obispo, San Mateo, Solano, and Sonoma counties (CNPS 2019). It is considered extirpated from Los Angeles, Orange,

and San Diego counties. Its distribution is uncertain, and presumed extirpated if once present in San Mateo County (CNPS 2019).

There are no CNDDB documented occurrences of Gairdner's yampah within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Gairdner's yampah has potential to occur onsite.

White-Flowered Rein Orchid

White-flowered rein orchid (*Piperia candida*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.2 species. This species is an herbaceous perennial that occurs in broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest, sometimes on serpentinite soils (CNPS 2019). White-flowered rein orchid blooms from March to September and is known to occur at elevations ranging from 98 to 4,298 feet above MSL (CNPS 2019). The current range for white-flowered rein orchid in California includes Del Norte, Humboldt, Mendocino, Santa Clara, Santa Cruz, Siskiyou, San Mateo, Sonoma, and Trinity counties (CNPS 2019).

There is one CNDDB documented occurrence of white-flowered rein orchid within five miles of the Project site (CDFW 2019b). The riparian community within the Project site provides suitable habitat for this species. White-flowered rein orchid has potential to occur onsite.

Mayacamas Popcornflower

Mayacamas popcornflower (*Plagiobothrys lithocaryus*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1A species. This species is an herbaceous annual that occurs in mesic areas of chaparral, cismontane woodland, and valley and foothill grassland (CNPS 2019). Mayacamas popcornflower blooms from April to May and is known to occur at elevations ranging from 984 to 1,476 feet above MSL (CNPS 2019). Mayacamas popcornflower is endemic to California; the current range of this species includes Lake and Mendocino counties (CNPS 2019). It is considered extirpated from Lake County. Its distribution is uncertain, but presumed extirpated if once present in Mendocino County (CNPS 2019).

There are no CNDDB documented occurrences of Mayacamas popcornflower within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Mayacamas popcornflower has potential to occur onsite.

Davy's Semaphore Grass

Davy's semaphore grass (*Pleuropogon californicus* var. *davyi*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 4.3 species. This species is an herbaceous rhizomatous perennial that occurs in cismontane woodland, lower montane coniferous forest, and meadows and seeps (CNPS 2019). Davy's semaphore grass blooms from March to June and is known to occur at elevations ranging from 492 to 2,001 feet above MSL (CNPS 2019). Davy's semaphore grass is endemic to California; the current range of this species includes Lake and Mendocino counties (CNPS 2019).

There are no CNDDB documented occurrences of Davy's semaphore grass within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. Davy's semaphore grass has potential to occur onsite.

North Coast Semaphore Grass

North Coast semaphore grass (*Pleuropogon hooverianus*) is not listed pursuant to the ESA, but is listed as threatened pursuant to the CESA and is designated as a CRPR 1B.1 species. This species is an herbaceous rhizomatous perennial that occurs open and mesic areas in broadleafed upland forest, meadows and seeps, and North Coast coniferous forest (CNPS 2019). North Coast semaphore grass blooms from April to June and is known to occur at elevations ranging from 33 to 2,201 feet above MSL (CNPS 2019). North Coast semaphore grass is endemic to California; the current range of this species includes Mendocino, Marin, and Sonoma counties (CNPS 2019).

There are six CNDDB documented occurrences of North Coast semaphore grass within five miles of the Project site, and one CNDDB documented occurrence (two populations) within the Project site (CDFW 2019b). These two populations were identified and mapped during the focused plant survey for this species conducted by ECORP botanist Krissy Walker-Berry and biologist Carly Rich the day of the site visit. The results of this survey are included on Figure 5. *North Coast Semaphore Grass Locations*. Mesic areas within the annual grassland and riparian communities as well as the wetlands within the Project site provide suitable habitat for this species. North Coast semaphore grass is present onsite.

Nuttall's Ribbon-Leaved Pondweed

Nuttall's ribbon-leaved pondweed (*Potamogeton epihydrus*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 2B.2 species. This species is an aquatic herbaceous rhizomatous perennial that occurs in assorted shallow freshwater marshes and swamps (CNPS 2019). Nuttall's ribbon-leaved pondweed blooms from June to September and is known to occur at elevations ranging from 1,211 to 7,126 feet above MSL (CNPS 2019). The current range for Nuttall's ribbon-leaved pondweed in California includes El Dorado, Madera, Mendocino, Modoc, Mariposa, Placer, Plumas, Shasta, and Tuolumne counties (CNPS 2019).

There is one CNDDB documented occurrence of Nuttall's ribbon-leaved pondweed within five miles of the Project site (CDFW 2019b). The riparian community and wetlands within the Project site provide suitable habitat for this species. Nuttall's ribbon-leaved pondweed has potential to occur onsite.

Map Features

Project Area - 27.81 acres

Plants

North Coast Semaphore Grass

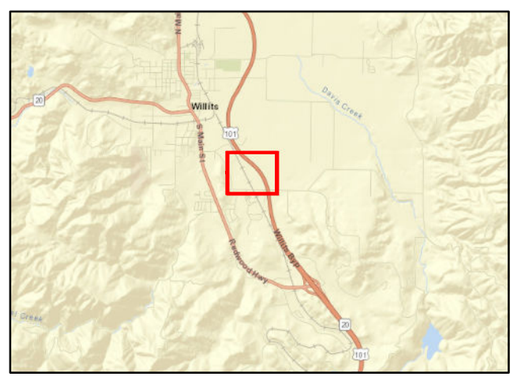
Aquatic Resources

Adjacent Seasonal Wetlands

Seasonal Wetland Depressions

Non-Wetland Waters

Sources: ESRI, NAIP (2018), LSA, CDFW (CNDDB, May 2019)



ECORP- N:\2018\2018-116.005 CCC Replace Ukiah Center\MAPS\sss_survey_and_mapping\Ukiah_BRA_BioResources_20190613.mxd (JDS/CCH) -chinkelman 6/13/2019

Map Date: 6/13/2019

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 250

DRAFT

Figure 5.
North Coast Semaphore Grass Locations
2018-116.005 CCC Replace Ukiah Center

Two-Fork Clover (Showy Indian Clover)

Two-fork clover (*Trifolium amoenum*) is listed as endangered pursuant to the ESA, not listed pursuant to the CESA, and is designated as a CRPR 1B.1 species. The species is an herbaceous annual that occurs in coastal bluff scrub and valley and foothill grassland communities and is sometimes associated with serpentinite soils (CNPS 2019). Two-fork clover blooms from April through June and is known to occur at elevations ranging from 16 to 1,362 feet above MSL (CNPS 2019). Two-fork clover is endemic to California; the current range of this species includes Marin, Napa, Santa Clara, San Mateo, Solano, and Sonoma counties. It is considered extirpated from Napa, Santa Clara, and Solano counties. Its distribution is uncertain, and presumed extirpated if once present in Sonoma County (CNPS 2019).

There are no CNDDB documented occurrences of two-fork clover within five miles of the Project site (CDFW 2019b). The annual grassland community within the Project site provides suitable habitat for this species. Two-fork clover has potential to occur onsite.

Santa Cruz Clover

Santa Cruz clover (*Trifolium buckwestiorum*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in gravelly sites and on the margins of broadleaved upland forest, cismontane woodland, and coastal prairie (CNPS 2019). Santa Cruz clover blooms from April through October and is known to occur at elevations ranging from 344 to 2,001 feet above MSL (CNPS 2019). Santa Cruz clover is endemic to California; its current range includes Mendocino, Monterey, Santa Clara, Santa Cruz, San Mateo, and Sonoma counties (CNPS 2019).

There are no CNDDB documented occurrences of Santa Cruz clover within five miles of the Project site (CDFW 2019b). The annual grassland community within the Project site provides marginal suitable habitat for this species. Santa Cruz clover has low potential to occur onsite.

Oval-Leaved Viburnum

Oval-leaved viburnum (*Viburnum ellipticum*) is not listed pursuant to either the ESA or CESA, but is designated as a CRPR 2B.3 species. This species is a perennial deciduous shrub that occurs in chaparral, cismontane woodland, and lower montane coniferous forest (CNPS 2019). Oval-leaved viburnum blooms from May through June and is known to occur at elevations ranging from 705 to 4,593 feet above MSL (CNPS 2019). The current range of this species in California includes Alameda, Contra Costa, El Dorado, Fresno, Glenn, Humboldt, Lake, Mendocino, Mariposa, Napa, Placer, Shasta, Solano, Sonoma, and Tehama counties (CNPS 2019).

There are no CNDDB documented occurrences of oval-leaved viburnum within five miles of the Project site (CDFW 2019b). The annual grassland and riparian communities within the Project site provide marginal suitable habitat for this species. Oval-leaved viburnum has low potential to occur onsite.

4.6.2 Invertebrates

No special-status invertebrate species were identified as having potential to occur within the Project site based on the literature review (Table 2). No further discussion of invertebrate species is provided in this analysis.

4.6.3 Fish

No special-status fish species were identified as having potential to occur within the Project site based on the literature review (Table 2). No further discussion of fish species is provided in this analysis.

4.6.4 Amphibians

There are three special-status amphibian species that were identified as having potential to occur within the Project site based on the literature review (Table 2). Upon further analysis and after the reconnaissance site visit, one species was determined to be absent from the Project site due to the Project site being outside of the geographical range of this species (Table 2). No further discussion of this species is provided in this analysis. A brief description of the remaining two species that have the potential to occur within the Project site are presented below.

Foothill Yellow-Legged Frog

The foothill yellow-legged frog (*Rana boylii*) has been proposed for listing as threatened under the CESA (California Fish and Game Commission 2017) and is a California SSC. It occurs in the Coast Ranges, from the Oregon border south to the Transverse Mountains in Los Angeles County, west of the Cascade crest in most of northern California, and in the Sierra Nevada foothills south to Kern County, from 0 to 6,000 feet above MSL (Stebbins, 1985).

Foothill yellow-legged frogs occupy rocky streams in valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow plant communities. They are rarely found far from water and will often dive into water to take refuge under rocks or sediment when disturbed (Zeiner et al., 1988).

There are three CNDDB documented occurrences of foothill yellow-legged frog within five miles of the Project site (CDFW 2019b). The riparian community as well as the wetlands within the Project site provide suitable habitat for this species. Foothill yellow-legged frog has potential to occur onsite.

Red-Bellied Newt

The red-bellied newt (*Taricha rivularis*) is one of three newts of the genus Taricha endemic to California (CaliforniaHerps.com 2019). All Taricha are endemic to northwestern North America west of the Sierra Nevada/Cascade divide, from Alaska south to southern California (San Diego County) (Stebbins 2003). The red-bellied newt is a California endemic and has the most restricted range of all Tarichas. It occurs along coastal California from Sonoma and Lake counties north through Mendocino County to southwestern Humboldt County. An isolated population occurs in the Stevens Creek Watershed of Santa Clara County, 80 miles south of the main distribution of this species (Reilly et al. 2014). In parts of its range, including

the Steven's Creek Watershed, red-bellied salamanders co-occur with both coast range newts (*T. torosa*) and rough-skinned newts (*T. granulosa*). Red-bellied salamanders are dark brown, dark gray, or black above, bright tomato red ventrally and lack costal grooves and nasiolabial grooves (Stebbins 2003). One characteristic that differentiates *T. rivularis* from the other Taricha is a dark band of pigment across the vent (Stebbins 2003), especially noticeable in breeding males.

This is a species of cold creeks, streams, and rivers in coastal woodlands, and almost exclusively tied to Coast Redwood (*Sequoia sempervirens*) forests. Typically, breeding season starts in February with adults breeding through May in rocky stream substrates of cold, rapidly moving streams. Egg masses averaging 10 eggs are attached to the bottoms of rocks or vegetation in fast moving water (CaliforniaHerps.com 2019)). Incubation can last from 16 – 34 days, and proceeds more quickly in warmer water (CaliforniaHerps.com 2019). Larvae tend to be stream type, with reduced external gills, short tail fins, and short toes (Stebbins 2003). Larvae metamorphose in late August at 45 – 55 millimeters total length (Stebbins and McGinnis 2012).

There are three CNDDB documented occurrences of red-bellied newt within five miles of the Project site (CDFW 2019b). The riparian community as well as the wetlands within the Project site provide suitable habitat for this species. Redd-bellied newt has potential to occur onsite.

4.6.5 Reptiles

There is one special-status reptile species that was identified as having potential to occur within the Project site based on the literature review (Table 2). A brief description of this species is provided below.

Northwestern Pond Turtle

The Northwestern pond turtle (*Actinemys marmorata*) is not listed pursuant to either the ESA or CESA; however, it is designated as a CDFW SSC. Northwestern pond turtles occur in a variety of fresh and brackish water habitats including marshes, lakes, ponds, and slow-moving streams (Jennings and Hayes 1994). This species is primarily aquatic; however, they typically leave aquatic habitats in the fall to reproduce and to overwinter (Jennings and Hayes 1994). Deep, still water with abundant emergent woody debris, overhanging vegetation, and rock outcrops is optimal for basking and thermoregulation. Although adults are habitat generalists, hatchlings and juveniles require shallow edgewater with relatively dense submergent or short emergent vegetation in which to forage.

Western pond turtles are typically active between March and November. Mating generally occurs during late April and early May, and eggs are deposited between late April and early August (Jennings and Hayes 1994). Eggs are deposited within excavated nests in upland areas, with substrates that typically have high clay or silt fractions (Jennings and Hayes 1994). The majority of nesting sites are located within 650 feet (200 meters) of the aquatic sites; however, nests have been documented as far as 1,310 feet (400 meters) from the aquatic habitat.

There is one CNDDB documented occurrence of Northwestern pond turtle within five miles of the Project site (CDFW 2019b). The riparian community and wetlands within the Project site provide suitable habitat for this species. Northwestern pond turtle has potential to occur onsite.

4.6.6 Birds

There are seven special-status bird species that were identified as having potential to occur within the Project site based on the literature review (Table 2). Upon further analysis and after the reconnaissance site visit, four species were considered to be absent from the Project site due to the lack of suitable habitat (Table 2). No further discussion of these species is provided in this analysis. A brief description of the remaining three special-status bird species that have the potential to occur within the Project site is presented below.

Sharp-Shinned Hawk

Sharp-shinned hawk (*Accipiter striatus*) is not listed pursuant to either the ESA or CESA. However, it is a CDFW "watch list" species and currently tracked in the CNDDB. Their breeding range in California is poorly known but breeding or summering sharp-shinned hawks have occurred throughout the state (Small 1994) (Bildstein and Meyer 2000). They nest in most forest types, particularly dense stands with at least some conifers (Bildstein and Meyer 2000). Breeding occurs during April through August. The species is a common migrant and winter resident in the Central Valley of California.

There are no CNDDB documented occurrences of sharp-shinned hawk within five miles of the Project site (CDFW 2019b). Large trees within the Project site provide marginal suitable nesting habitat for this species. Sharp-shinned hawk has low potential to occur onsite.

Yellow-Breasted Chat

Yellow-breasted chat (*Icteria virens*) is a CDFW SSC but has no federal special status. Yellow-breasted chat nest in North America and winter from southern Texas into Mexico and Guatemala (Comrack 2008). In California, the breeding range generally includes northern and northwestern California, the Sierra Nevada foothills south to Kern County, coastal valleys from Santa Clara County south to Baja California, scattered locations east of the Sierran crest, and along the Colorado River. Yellow-breasted chat typically nests within early successional riparian habitat with well-developed shrub layers and an open canopy along creeks, streams, sloughs, and rivers (Comrack 2008). Nesting occurs during May through August.

There is one CNDDB documented occurrence of yellow-breasted chat within five miles of the Project site (CDFW 2019b). Trees within the riparian community within the Project site provide suitable nesting habitat for this species. Yellow-breasted chat has potential to occur onsite.

Yellow Warbler

Yellow warbler (*Setophaga petechia*) is a CDFW SSC but has no federal special status. Yellow warbler nest in from Baja California northward to Alaska and winter from southern California to South America (American Ornithologists Union 1983). Breeding occurs throughout much of California up to 8,000 feet above MSL, except the Central Valley and southeastern deserts (Heath 2008). Breeding habitat includes riparian vegetation in close proximity to water along streams and wet meadows (Heath 2008). During migration, yellow warbler may occur in a wide variety of woodland habitats throughout California. The nesting season is May through August.

There is one CNDDB documented occurrence of yellow warbler within five miles of the Project site (CDFW 2019b). Trees within the riparian community within the Project site provide suitable nesting habitat for this species. Yellow warbler has potential to occur onsite.

4.6.7 Mammals

There are six special-status mammal species that were identified as having potential to occur within the Project site based on the literature review (Table 2). Upon further analysis and after the reconnaissance site visit, three species were considered to be absent from the Project site due to the lack of suitable habitat. No further discussion of these species is provided in this analysis. Brief descriptions of the remaining three species that have the potential to occur within the Project site are presented below.

American Badger

The American badger (*Taxidea taxus*) is designated in California as a SSC. The species historically ranged throughout much of the state, except in humid coastal forests. Badgers were once numerous in the Central Valley; however, populations now occur in low numbers in the surrounding peripheral parts of the valley and in the adjacent lowlands of eastern Monterey, San Benito, and San Luis Obispo counties (Williams, 1986).

Badgers occupy a variety of habitats, including grasslands and savannas. The principal requirements seem to be significant food supply, friable soils, and relatively open, uncultivated ground (Williams, 1986).

There are no CNDDB documented occurrences of American badger within five miles of the Project site (CDFW 2019b). The annual grassland community within the Project site provides marginal suitable habitat for this species. American badger has low potential to occur onsite.

Ringtail

Ringtail (*Bassariscus astutus*) is not listed pursuant to the ESA or CESA, but is designated as Fully Protected in California by CDFW. This is a smallish procyonid, related to the widespread raccoon (*Procyon lotor*) and neotropical white-nosed coati (*Nasua narica*). Ringtails are mesocarnivores of riparian areas, especially with abundant rocky outcrops, in low- to middle-elevation drainages in blue oak woodlands, foothill pine/oak forests, chaparral, ponderosa pine woodlands, black oak woodlands, riparian deciduous forests, and mixed coniferous forest (Verner and Boss 1980). Highly nocturnal, ringtails consume small rodents, snakes, birds and their eggs, invertebrates, and some fruits, nuts, and carrion (Zeiner et al. 1990b).

There are no CNDDB documented occurrences of ringtail within five miles of the Project site (CDFW 2019b). Large trees within the Project site provide suitable habitat for this species. Ringtail has potential to occur onsite.

Townsend's Big-Eared Bat

The Townsend's big-eared bat (*Corynorhinus townsendii*) is not listed pursuant to either the ESA or CESA; however, this species is considered a SSC by CDFW. Townsend's big-eared bat is a fairly large bat with prominent bilateral nose lumps and large "rabbit-like" ears. This species occurs throughout the west and

ranges from the southern portion of British Columbia south along the Pacific coast to central Mexico and east into the Great Plains. This species has been reported from a wide variety of habitat types and elevations from 0 to 10,827 feet above MSL. Habitats used include coniferous forests, mixed mesophytic forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Its distribution is strongly associated with the availability of caves and cave-like roosting habitat including abandoned mines, buildings, bridges, rock crevices, and hollow trees. This species is readily detectable when roosting due to their habit of roosting pendant-like on open surfaces. Townsend's big-eared bat is a moth specialist with over 90 percent of its diet composed of Lepidopterans. Foraging habitat is generally edge habitats along streams adjacent to and within a variety of wooded habitats. This species often travels long distances when foraging and large home ranges have been documented in California (Western Working Bat Group 2019).

There is one CNDDB documented occurrence of Townsend's big-eared bat within five miles of the Project site (CDFW 2019b). Trees within the riparian community within the Project site provide marginal suitable roosting habitat for this species. Townsend's big-eared bat has low potential to occur onsite.

4.7 Wildlife Movement/Corridors

The Project site is largely undeveloped with several wetland features scattered throughout. Wildlife likely use the riparian and annual grassland communities as well as the wetland features for movement and dispersal. Wildlife species that may use the Project site as a migratory or movement corridor include birds such as passerines, raptors, wading birds, and waterfowl. Highly mobile mammal species such as coyote (*Canis latrans*) and raccoon (*Procyon lotor*) are expected to occasionally move through the Project site.

4.8 Sensitive Natural Communities

One sensitive natural community was identified as having the potential to occur within the Project site based on the literature review: Oak Woodland (CDFW 2019b). However, based on the site visit, there is no oak woodland vegetation community on the Project site and sensitive natural communities are not further discussed.

5.0 RECOMMENDATIONS

5.1 Waters of the U.S. and State

Approximately 1.07 acres of potential Waters of the U.S./wetlands are located within the Project site (3, Attachment C). The following mitigation measures are recommended to minimize potential impacts to Waters of the U.S. and State:

- Authorization to fill wetlands and other Waters of the U.S. under the Section 404 of the federal CWA (Section 404 Permit) must be obtained from USACE prior to discharging any dredged or fill materials into any Waters of the U.S. Mitigation measures will be developed as part of the Section 404 Permit to ensure no-net-loss of wetland function and values. To facilitate such authorization, an application for a Section 404 Permit for the Project will be prepared and submitted to USACE

and will include direct, avoided, and preserved acreages to Waters of the U.S. Mitigation for impacts to Waters of the U.S. typically consists of a minimum of a 1:1 ratio for direct impacts; however, final mitigation requirements will be developed in consultation with USACE.

- A Water Quality Certification or waiver pursuant to Section 401 of the CWA must be obtained from the RWQCB for Section 404 permit actions.

The following measures are recommended, if applicable, to minimize potential impacts to Waters of the State (i.e., wetlands/Waters of the U.S. that are considered as non-jurisdictional by USACE):

- Pursuant to the Porter-Cologne Water Quality Act, a permit authorization from the RWQCB is required prior to the discharge of material in an area that could affect Waters of the State. Mitigation requirements for discharge to Waters of the State within the Project site will be developed in consultation with the RWQCB.

Features that may be subject to CDFW Section 1602 jurisdiction were identified in the Project site (e.g., ephemeral streams). The following measure is recommended to minimize potential impacts to the bed, bank, or channel of rivers, streams, or lakes within the Project site:

- A Streambed Alteration Agreement (SAA) pursuant to Section1602 of the California Fish and Game Code must be obtained for any activity that will impact the bed, bank, or channel of any river, stream, or lake. Mitigation measures will be developed during consultation with CDFW as part of the SAA permit process to ensure protections for affected fish and wildlife resources.

5.2 Special-Status Species

5.2.1 Plants

There is a population of the special-status plant North Coast semaphore grass on the Project site mapped by CNDDB (CDFW 2019b) and verified by ECORP biologists.

The following measures are recommended:

- The project Proponent should attempt to avoid mapped populations of North Coast semaphore grass during final Project design
- If avoidance of the populations is not possible, the Proponent should consult with CDFW on appropriate measures to reduce impacts to this special-status plant population.

There are an additional 23 special-status plants that have potential to occur within the Project site. These include grass alisma, Humboldt County milkvetch, Rattan's milkvetch, watershield, deep-scarred cryptantha, mountain lady's slipper, Roderick's fritillary, pacific gilia, congested-headed hayfield tarplant, glandular western flax, thin-lobed horkelia, Burke's goldfields, Contra Costa goldfields, Baker's meadowfoam, Milo Baker's lupine, Baker's navarretia, Gairdner's yampah, white-flowered rein orchid, Mayacamas popcornflower, Davy's semaphore grass, Nuttall's ribbon-leaved pondweed, two-fork clover,

Santa Cruz clover, and oval-leaved viburnum. Guideline-level special-status plant surveys (early and late season) have not been conducted. The following measures are recommended:

- Perform focused plant surveys according to USFWS, CDFW, and CNPS protocols. Surveys should be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria should be visited prior to surveys to confirm the appropriate phenological state of the target species.
- If additional special-status plant species are found during surveys (aside from the two mapped populations of Northern Semaphore grass) within the Project and avoidance of the species is not possible, seed collection, transplantation, and/or other mitigation measures may be developed in consultation with appropriate resource agencies to reduce impacts to special-status plant populations.
- If no additional special-status plants are found within the Project Area, no further measures pertaining to special-status plants are necessary.

5.2.2 Invertebrates

The Project site does not provide suitable habitat for any special-status invertebrate species. No measures are recommended for special-status invertebrate species.

5.2.3 Fish

The Project site does not provide suitable habitat for any special-status fish species. No measures are recommended for special-status fish species.

5.2.4 Amphibians

The Project site provides potential habitat for foothill yellow-legged frog, a CDFW SSC species and a candidate species for state listing as well as for red-bellied newt, a CDFW SSC species. The following measures are recommended:

- Conduct pre-construction surveys for foothill yellow-legged frog and red-bellied newt where construction occurs near potential habitat. If either species is observed, consultation with CDFW prior to initiation of construction activities may be required.
- During construction, where habitat for foothill yellow-legged frog is identified, to reduce the risk of entrapment no monofilament plastic mesh or line would be used for erosion control.
- Silt fencing that will not be disturbed will be installed around suitable habitat for foothill yellow-legged frog and red-bellied newt, and fencing will be inspected daily to ensure no individuals are trapped along the fence.

5.2.5 Reptiles

The Project site provides suitable habitat for Northwestern pond turtle, which is a CDFW SSC species. The following measure is recommended:

- Conduct a pre-construction Northwestern pond turtle survey within 24 hours prior to the initiation of construction activities, and retain a qualified biologist to survey immediately prior to ground-disturbing activities in suitable habitat. If Northwestern pond turtle is found, consultation with CDFW may be required, as well as the development of a relocation plan for Northwestern pond turtles encountered during construction.

5.2.6 Birds and MBTA Protected Birds (including Raptors)

Suitable nesting and/or wintering and foraging habitat for sharp-shinned hawk, yellow-breasted chat, and yellow warbler is present on the Project site. If nesting individuals are present during construction, the Project could result in harassment to nesting individuals and may temporarily disrupt foraging activities.

In addition to the above-listed special-status birds, all native birds, including raptors, are protected under the California Fish and Game Code and the federal MBTA. As such, to ensure that there are no impacts to active nests, the following mitigation measures are recommended:

- Conduct a pre-construction nesting raptor and bird survey of all suitable habitat on the Project site within 14 days of the commencement of construction during the nesting season (February 1 – August 31). Surveys should be conducted within 300 feet of the Project site for nesting raptors, including sharp-shinned hawk, and 100 feet of the Project site for nesting birds.
- If active nests are found, a no-disturbance buffer around the nest shall be established. The buffer distance shall be established by a qualified biologist and is recommended to be 300 feet for raptors and 50 feet for nonraptor songbirds. If an active sharp-shinned hawk, yellow-breasted chat, or yellow warbler nest is found, the no-disturbance buffer shall be determined through consultation with CDFW. The buffer shall be maintained until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist. Once the young are independent of the nest, no further measures are necessary. Pre-construction nesting surveys are not required for construction activity outside the nesting season.

5.2.7 Mammals

The Project site provides potential habitat for American badger, ringtail, and Townsend's big-eared bat. The following measures are recommended.

- Conduct a pre-construction American badger survey within 48 hours prior to construction activities. If American badgers are found, consultation with CDFW prior to initiation of construction activities may be required.
- A pre-construction survey for potential den sites (i.e., tree cavities, logs, snags) will be conducted within the Project site. If potential den sites are located that will not be avoided by construction,

consultation with CDFW prior to initiation of construction activities may be required. If no potential den sites are found during the survey, no further measures are necessary.

- Prior to work within potentially suitable bat roosting habitat, a bat habitat assessment is recommended for all suitable roosting habitat (i.e., manmade structures and suitable trees, if present). If the assessment identifies moderate to highly suitable roosting habitat, a qualified biologist will conduct an evening bat emergence survey that may include acoustic monitoring to determine whether or not bats are present. If Townsend's big-eared bats are found, consultation with CDFW prior to initiation of construction activities may be required. If no suitable roosting habitat is found, or if bats are not found during the emergence surveys, no further measures are necessary.

5.3 Wildlife Movement/Corridors

Wildlife have potential to use the Project site for wildlife movement, especially the riparian corridors. Based on the Site Plan (Figure 2) the Project will be avoiding the majority of the riparian habitat and implementation of the Project would not constitute a significant loss of the available migration habitat in the area. No measures are recommended.

6.0 REFERENCES

American Ornithologists Union. 1983. Check-list of North American birds. 6th ed. American Ornithol. Union, Washington, D.C.

Bildstein, K.L., and K. Meyer. 2000. Sharp-shinned Hawk (*Accipiter striatus*). In The Birds of North America, No. 482 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

California Department of Fish and Game (CDFG). 2005. The Status of Rare, Threatened, and Endangered Plants and Animals of California 2000-2004. Sacramento, California.

California Department of Fish and Wildlife (CDFW). 2018. *California Natural Communities List*. Available at: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List#natural communities lists.

California Department of Fish and Wildlife (CDFW). 2019a. Biogeographic Information and Observation System (BIOS). Available at: https://www.wildlife.ca.gov/Data/BIOS. Accessed May 2019.

California Department of Fish and Wildlife (CDFW). 2019b. Rarefind 5. Online Version, commercial version. California Natural Diversity Database. The Resources Agency, Sacramento. Accessed May 2019.

California Native Plant Society (CNPS). 2019. Inventory of Rare and Endangered Plants in California (online edition, v8-02). California Native Plant Society. Sacramento, CA. Available online: http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi. Accessed May 2019.

CaliforniaHerps.com. 2019. A guide to the amphibians and reptiles of California. Red-bellied Newt – (*Taricha rivularis).* Available online: http://www.californiaherps.com/index.html. Accessed June 2019.

City of Willits. 1992. City of Willits General Plan Policy Document. Adopted August 12, 1992. Available at: https://cityofwillits.org/DocumentCenter/Index/36. Accessed May 2019.

Comrack, L.A. 2008. Yellow-breasted Chat (*Icteria virens*). Pages 351 – 358 in W. D. Shuford and T. Gardali, Eds. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds No. 1. 450 pp.

Heath, S.K. 2008. Yellow Warbler (*Dendroica petachia*). Pages 332 - 339 in W.D. Shuford and T. Gardali, Eds. California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California. Studies of Western Birds No. 1. 450 pp.

Jennings, M. R., and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. A Report to the California Department of Fish and Game, Rancho Cordova, California.

LSA Associates, Inc. 2018. Preliminary Delineation of Potential Waters of the U.S. for the CCC Ukiah Residential Center

Mayer, K. E. and W. F. Laudenslayer Jr (Eds). 1988. A Guide to Wildlife Habitats of California. California Department of Fish and Game.

Natural Resources Conservation Service (NRCS), U.S. Geological Survey (USGS), and Environmental Protection Agency (USEPA). 2016. Watershed Boundary Dataset for California. Available online: http://datageteway.nrcs.usda.gov. Accessed 21 September 2016.

Natural Resources Conservation Service (NRCS). 2019a. Soil Survey Geographic (SSURGO) Database for Madera County, California. U.S. Department of Agriculture. Available Online: https://gdg.sc.egov.usda.gov/.

Natural Resources Conservation Service (NRCS). 2019b. National Hydric Soils List. Available Online: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed May 2019.

Pacific Fishery Management Council. 2000. Need reference.

Reilly, S.B., D. M. Portik, M. S.Koo, and D B. Wake. 2014. Discovery of a New, Disjunct Population of a Narrowly Distributed Salamander (Taricha rivularis) in California Presents Conservation Challenges. Journal of Herpetology: September 2014, Vol. 48, No. 3, pp. 371-379.

Shuford, W.D. and T. Gardali, eds. 2008. California Bird Species of Special Concern. Studies of Western Birds No. 1. Western Field Ornithologists, Camarillo, California and California Department of Fish and Game, Sacramento, California.

Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company. Vista, California. 342 pp.

Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, MA.

Stebbins, R. C. 2003. Western Reptiles and Amphibians. Houghton-Mifflin Co., Boston, New York. 533 pp.

Stebbins, R. C. and S. M. McGinnis. 2012. Field Guide to Amphibians and Reptiles of California (revised edition). University of California Press, Berkeley.

Thompson, R.C., A.N. Wright, and H.B. Shaffer. 2016. California Amphibian and Reptile Species of Special Concern. University of California Press, Oakland, California.

U.S. Fish and Wildlife Service, (USFWS). 2019a. Species Lists. Available by request online: https://ecos.fws.gov/ipac/. Accessed May 2019.

U.S. Fish and Wildlife Service, (USFWS). 2019b. USFWS Threatened & Endangered Species Active Critical Habitat Report. Available online at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed May 2019.

U.S. Geological Survey (USGS). 1991. "Willits, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

Verner, J. and A.S. Boss. 1980. California wildlife and their habitats: western Sierra Nevada. U. S. Forest Service General Technical Report PSW-37.

Western Bat Working Group. 2019. Western Bat Species Accounts. Accessed May 2019. Available on-line at: http://wbwg.org/western-bat-species/.

Williams, D.F. 1986. Mammalian Species of Special Concern in California. State of California Department of Fish and Game, Wildlife Management Division. Sacramento, California. 112pp.

Zeiner, D. C. 1988. California's Wildlife, Volume I, Amphibian and Reptiles. California Statewide Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (Eds). 1990a. California's Wildlife, Volume II, Birds. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, California.

Zeiner, D. C. 1990b. California's Wildlife, Volume III, Mammals. California Statewide Wildlife Habitat Relationships System. California Department of Fish and Game, Sacramento, California.

LIST OF ATTACHMENTS

ATTACHMENT A

Special-Status Species Searches

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Longvale (3912354) OR Willis Ridge (3912353) OR Brushy Mtn. (3912352) OR Burbeck (3912344) OR Willits (3912343) OR Foster Mtn. (3912342) OR Greenough Ridge (3912334) OR Laughlin Range (3912333) OR Redwood Valley (3912332))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Accipiter striatus sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
Alisma gramineum grass alisma	PMALI01010	None	None	G5	S3	2B.2
Anisocarpus scabridus scabrid alpine tarplant	PDASTDU020	None	None	G3	S3	1B.3
Arborimus pomo Sonoma tree vole	AMAFF23030	None	None	G3	S3	SSC
Astragalus agnicidus Humboldt County milk-vetch	PDFAB0F080	None	Endangered	G2	S2	1B.1
Blennosperma bakeri Sonoma sunshine	PDAST1A010	Endangered	Endangered	G1	S1	1B.1
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Brasenia schreberi watershield	PDCAB01010	None	None	G5	S3	2B.3
Calystegia collina ssp. tridactylosa three-fingered morning-glory	PDCON04036	None	None	G4T1	S1	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Cryptantha excavata deep-scarred cryptantha	PDBOR0A0W0	None	None	G1	S1	1B.1
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Fritillaria roderickii Roderick's fritillary	PMLIL0V0M0	None	Endangered	G1Q	S1	1B.1
Gilia capitata ssp. pacifica Pacific gilia	PDPLM040B6	None	None	G5T3	S2	1B.2
Hesperolinon adenophyllum glandular western flax	PDLIN01010	None	None	G2G3	S2S3	1B.2
Horkelia tenuiloba thin-lobed horkelia	PDROS0W0E0	None	None	G2	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Limnanthes bakeri Baker's meadowfoam	PDLIM02020	None	Rare	G1	S1	1B.1
Lupinus milo-bakeri Milo Baker's lupine	PDFAB2B4E0	None	Threatened	G1Q	S1	1B.1
Martes caurina humboldtensis Humboldt marten	AMAJF01012	None	Endangered	G5T1	S1	SSC
Navarretia leucocephala ssp. bakeri Baker's navarretia	PDPLM0C0E1	None	None	G4T2	S2	1B.1
Pekania pennanti fisher - West Coast DPS	AMAJF01021	None	Threatened	G5T2T3Q	S2S3	SSC
Piperia candida white-flowered rein orchid	PMORC1X050	None	None	G3	S3	1B.2
Plagiobothrys lithocaryus Mayacamas popcornflower	PDBOR0V0P0	None	None	GH	SH	1A
Pleuropogon hooverianus North Coast semaphore grass	PMPOA4Y070	None	Threatened	G2	S2	1B.1
Potamogeton epihydrus Nuttall's ribbon-leaved pondweed	PMPOT03080	None	None	G5	S2S3	2B.2
Ramalina thrausta angel's hair lichen	NLLEC3S340	None	None	G5	S2?	2B.1
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Taricha rivularis red-bellied newt	AAAAF02020	None	None	G4	S2	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trifolium buckwestiorum Santa Cruz clover	PDFAB402W0	None	None	G2	S2	1B.1
Valley Oak Woodland Valley Oak Woodland	CTT71130CA	None	None	G3	S2.1	

Record Count: 35

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

29 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3912354, 3912353, 3912352, 3912344, 3912343, 3912342, 3912334 3912333 and 3912332;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Alisma gramineum	grass alisma	Alismataceae	perennial rhizomatous herb (aquatic)	Jun-Aug	2B.2	S3	G5
Anisocarpus scabridus	scabrid alpine tarplant	Asteraceae	perennial herb	(Jun)Jul-Aug(Sep)	1B.3	S3	G3
Astragalus agnicidus	Humboldt County milk-vetch	Fabaceae	perennial herb	Apr-Sep	1B.1	S2	G2
Astragalus rattanii var. rattanii	Rattan's milk-vetch	Fabaceae	perennial herb	Apr-Jul	4.3	S4	G4T4
Blennosperma bakeri	Sonoma sunshine	Asteraceae	annual herb	Mar-May	1B.1	S1	G1
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	2B.3	S3	G5
Calystegia collina ssp. tridactylosa	three-fingered morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	1B.2	S1	G4T1
Ceanothus gloriosus var. exaltatus	glory brush	Rhamnaceae	perennial evergreen shrub	Mar-Jun(Aug)	4.3	S4	G4T4
Cryptantha excavata	deep-scarred cryptantha	Boraginaceae	annual herb	Apr-May	1B.1	S1	G1
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
Delphinium uliginosum	swamp larkspur	Ranunculaceae	perennial herb	May-Jun	4.2	S3	G3
Fritillaria roderickii	Roderick's fritillary	Liliaceae	perennial bulbiferous herb	Mar-May	1B.1	S1	G1Q
Gilia capitata ssp. pacifica	Pacific gilia	Polemoniaceae	annual herb	Apr-Aug	1B.2	S2	G5T3
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	Asteraceae	annual herb	Apr-Nov	1B.2	S2	G5T2
Hesperolinon adenophyllum	glandular western flax	Linaceae	annual herb	May-Aug	1B.2	S2S3	G2G3
Horkelia tenuiloba	thin-lobed horkelia	Rosaceae	perennial herb	May-Jul(Aug)	1B.2	S2	G2
Limnanthes bakeri	Baker's meadowfoam	Limnanthaceae	annual herb	Apr-May	1B.1	S1	G1
Lupinus milo-bakeri	Milo Baker's lupine	Fabaceae	annual herb	Jun-Sep	1B.1	S1	G1Q
	Baker's navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G4T2

Navarretia leucocephala ssp. bakeri							
Perideridia gairdneri ssp. gairdneri	Gairdner's yampah	Apiaceae	perennial herb	Jun-Oct	4.2	S3S4	G5T3T4
Piperia candida	white-flowered rein orchid	Orchidaceae	perennial herb	(Mar)May-Sep	1B.2	S3	G3
Pleuropogon californicus var. davyi	Davy's semaphore grass	Poaceae	perennial rhizomatous herb	Mar-Jun	4.3	S3	G5T3
Pleuropogon hooverianus	North Coast semaphore grass	Poaceae	perennial rhizomatous herb	Apr-Jun	1B.1	S2	G2
Potamogeton epihydrus	Nuttall's ribbon-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	(Jun)Jul-Sep	2B.2	S2S3	G5
Ramalina thrausta	angel's hair lichen	Ramalinaceae	fruticose lichen (epiphytic)		2B.1	S2?	G5
Sanguisorba officinalis	great burnet	Rosaceae	perennial rhizomatous herb	Jul-Oct	2B.2	S2	G5?
Trifolium buckwestiorum	Santa Cruz clover	Fabaceae	annual herb	Apr-Oct	1B.1	S2	G2
Viburnum ellipticum	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5
Wyethia longicaulis	Humboldt County wyethia	Asteraceae	perennial herb	May-Jul	4.3	S4	G4

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 16 May 2019].

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: May 16, 2019
Consultation Code: 08EACT00-2019-SLI-0326
Event Code: 08EACT00-2019-E-00736
Project Name: California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office
1655 Heindon Road
Arcata, CA 95521-4573
(707) 822-7201

Project Summary

Consultation Code: 08EACT00-2019-SLI-0326

Event Code: 08EACT00-2019-E-00736

Project Name: California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)

Project Type: DEVELOPMENT

Project Description: CCC Replacement Center building

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.39424993707466N123.3389307074228W

Counties: Mendocino, CA

Endangered Species Act Species

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fisher *Pekania pennanti* Population: West coast DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3651	Proposed Threatened

Birds

NAME	STATUS
Northern Spotted Owl *Strix occidentalis caurina* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened
Western Snowy Plover *Charadrius nivosus nivosus* Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891

Flowering Plants

NAME	STATUS
Burke's Goldfields *Lasthenia burkei*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4338

Contra Costa Goldfields *Lasthenia conjugens*	Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7058

Showy Indian Clover *Trifolium amoenum*	Endangered

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/6459

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

ATTACHMENT B

Representative Site Photographs

View facing southeast of seasonal wetland depressions with U.S. 101 in the background. Photo taken 19 May, 2019.

View of riparian vegetation along Davis Creek Tributary in southeastern portion of site. Photo taken 19 May, 2019.

View northeast across site with riparian trees along Haehl Creek tributary to the left of the photo. Photo taken 19 May, 2019.

North Coast semaphore grass within the riparian vegetation along the tributary to Haehl Creek. Photo taken 19 May, 2019.

ATTACHMENT C

LSA Associates Aquatic Resources Delineation

LSA

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

December 12, 2018

Stephanie Coleman
Department of General Services
RESD – Project Management and Development Branch
707 3rd Street, 4th Floor
West Sacramento, CA 95605

Subject: Preliminary Delineation of Potential Waters of the U.S. – CCC Ukiah Residential Center, City of Willits, Mendocino County, California

Dear Ms. Coleman:

This letter, prepared by LSA on behalf of the Department of General Services, presents the results of a preliminary delineation of potential waters of the U.S. for the CCC Ukiah Residential Center project (review area). Included herein is a brief description of the review area, an explanation of the methods used during the delineation, and a discussion of the results.

ENVIRONMENTAL SETTING

The review area, totaling 27.79 acres, consists of an undeveloped lot located in central Mendocino County along East Hill Road (Figures 1 and 2). The review area consists of two assessor parcel numbers: 007-100-28 to the north and 007-160-18 to the south. The review area is located between the US-101 Willits Bypass to the east and the Southern Pacific railroad to the west, with East Hill Road at the southern boundary (Figure 3). The review area is located in Sections 19 and 20 of Township 18 north and Range 13 west.

Topography in the review area is mostly flat with some shallow undulation; the elevation varies from approximately 1,381 to 1,394 feet above mean sea level. Areas adjacent to the review area consist primarily of rangelands and other undeveloped lands to the north and east and the City of Willits to the south and west.

The review area is comprised entirely of natural habitats including valley oak riparian, an Oregon ash grove, and bentgrass meadows (Figure 4). Valley oak riparian habitats within the review area are associated with the Haehl Creek tributary and Davis Creek tributary, totaling 3.88 acres. The Oregon ash grove, totaling 0.54 acre, is located in the southeastern corner of the review area. All remaining areas, totaling 23.37 acres, consist of bentgrass meadows.

Two soil types, Gielow sandy loam, 0 to 5 percent slopes, and Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes are mapped within the review area, as shown in Figure 5.

201 Creekside Ridge Court, Suite 250, Roseville, California 95678 916.772.7450 www.lsa.net

The Gielow-series soils consist of deep, somewhat poorly drained soils that formed in alluvium derived from sedimentary rocks. They are on alluvial planes and fans with slopes of 0 to 5 percent. Gielow-series soil is considered a hydric soil (NRCS Soil Survey Mendocino County, California).

The Xerochrepts-Haploxeralfs-Argixerolls complex contains two great groups (a mid-level soil classification) which occur on dissected stream terraces and terrace escarpments. Haploxeralfs are intermediately weathered soils consisting of thinner topsoil's with less soil organic matter. They are common in inland areas of the Coast Ranges with moderate precipitation and high temperatures. Argixerolls are soils derived from volcanic rock sources which occur on gentle slopes and terraces. This soil complex is historically associated with un-manipulated drainages which are no longer characteristic of conditions observed within the review area.

METHODS

A delineation of waters of the U.S. potentially subject to regulation by the Army Corps of Engineers (ACOE) was conducted on November 8, 2018, by LSA biologists Mike Trueblood and Anna Van Zuuk.

All potential waters of the U.S. in the review area were delineated in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the 2008 Regional Supplement – Arid West Region. A total of 26 formal observation points were described in the field. At each point, a pit was dug and soils and hydrology examined; vegetation was also characterized at each data point. Copies of the field data forms are attached.

The review area was previously delineated in February and March of 2016 by Geri Hulse-Stephens, a botanical consultant. This report was provided to LSA and was used to inform the current preliminary jurisdictional delineation effort. All areas which were recorded in 2016 were revisited, and formal observation points were recorded in features which exhibited wetland indicators or where conditions differed significantly from conditions recorded in the 2016 report.

Potential waters of the U.S. were located in the field using a GPS unit with sub-meter accuracy. All data was entered into a GIS database to calculate the extent of potential waters of the U.S. in the review area and to produce the final mapping. Final mapping was completed using color aerial photos, dated September 2017, at a scale of 1 inch = 200 feet.

RESULTS

A total of 1.07 acres of potential jurisdictional waters were mapped within the review area. Areas potentially meeting ACOE criteria for wetlands in the review area total 0.87 acre and include seasonal wetland depressions and seasonal wetlands associated with the Haehl Creek tributary (adjacent seasonal wetlands). Potential non-wetland waters in the review area, totaling 0.20 acre, include Haehl Creek tributary, Davis Creek tributary, and areas within the ordinary high water mark (OHWM) that were determined not to be wetlands. See attached Figure 6 and Preliminary Jurisdictional Delineation (JD) Form. Representative photos are also provided in Figure 7. Wetland data forms, as described above in Methods and as referenced below, are included as an attachment.

Wetlands

Two types of seasonal wetlands occur within the review area: seasonally wet depressions and adjacent seasonal wetlands (i.e., wetlands adjacent to or contiguous with non-wetland waters).

Grasslands (bentgrass meadows) within the review area are largely dominated by creeping bentgrass (*Agrostis stolonifera*), which is a facultative wetland species according to the ACOE Arid West 2016 Regional Wetland Plant List. According to *A Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens, 2009), these grasslands typically occur in wetter areas and rely on fluvial processes, including periods of flooding, for dispersal. Dominance of this species in the herbaceous layer, and its association with hydrological processes, made determination of the upland/wetland boundary difficult within the grassland community. For the purposes of this delineation, areas which did not exhibit evidence of hydrology pursuant to ACOE criteria were not considered wetlands.

For example, aerial imagery shown in Figures 4 – 6 indicates the presence of swales running north-south through the review area between the Haehl Creek tributary and the Davis Creek tributary. These features were visually surveyed and sampled. However, these areas did not exhibit hydrology pursuant to ACOE criteria. Additionally, redoxomorphic features within the soil pits were limited to the top 6 – 8 inches, which is indicative of overland sheetflow. Though these features may convey water during storm events they are not considered wetlands. This is consistent with the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual – Arid West Region*.

Seasonal Wetland Depressions

Seasonal wetlands in the review area which can be categorized as depressions are characterized by data points 2, 3, 4, 6, 12, 13, and 15 (Figure 6). Data points 2, 3, and 4 are located in the northern portion of the review area, west and north of the Haehl Creek tributary. Data Point 6 is located at the northern boundary of the review area near the Haehl Creek tributary, on the eastern side. Data points 12, 13, and 15 are located within the bentgrass meadows between the Haehl Creek and Davis Creek tributaries in the central portion of the review area.

Seasonal wetlands depressions in the review area were dominated by a variety of hydrophytic vegetation, as outlined in the ACOE Arid West 2016 Regional Wetland Plant List, including pennyroyal (*Mentha pulegium*) – OBL, seaside barley (*Hordeum marinum*) – FAC, sedge (*Carex sp.*) – OBL, creeping bentgrass – FACW, and common rush (*Juncus patens*) – FACW. Other hydrophytic vegetation present but not dominant included Italian rye grass (*Festuca perennis*) – FAC, curly dock (*Rumex crispus*) – FAC, Baltic rush (*Juncus balticus*) – FACW, and English plantain (*Plantago lanceolata*) – FAC. Since these topographic depressions contain a variety of dominant hydrophytic species, the vegetation criterion for wetlands was met.

Data points within the review area typically consisted of a Munsell Moist color of 10YR 3/2 to 12 inches, with 5 – 15 percent redoxomorphic concentrations in the matrix ranging from 2.5YR 4/6 to 5YR 4/6, with some variations. Data points 2 and 6 contained redoxomorphic concentrations in the pore linings. All data points met the requirements of the Redox Dark Surface indicator for hydric soils; therefore these soils meet the ACOE hydric soils criterion for wetlands.

Hydrology indicators identified included surface soil cracks, water-stained leaves, biotic crust, and oxidized rhizospheres along living roots, which are primary indicators for hydrology and thus meet the minimum ACOE hydrology criterion for wetlands.

Corresponding upland data was collected to help determine the upland/wetland boundary, as described by points 2a, 3a, 4a, 6a, 12a, 13a, and 15a.

Additional depressions which were sampled but were determined not to be wetlands are characterized by data points 1, 9, 10, and 14. Though these depressions were all dominated by hydrophytic vegetation, data point 1 lacked hydric soil indicators and all four data points lacked hydrology indicators; therefore these depressions fail the three factor wetland test and are not considered wetlands, consistent with the 2008 Regional Supplement – Arid West Region guidelines.

Adjacent Seasonal Wetlands

Seasonal wetlands in the review area which are adjacent to or contiguous with the Haehl Creek tributary can be categorized as adjacent seasonal wetlands and are characterized by data points 5, 7, and 8 (Figure 6). These data points are all located near the Haehl Creek tributary in the center of the review area.

These areas were dominated by a variety of hydrophytic vegetation, as outlined in the ACOE Arid West 2016 Regional Wetland Plant List, including Baltic rush – FACW, common rush – FACW, California blackberry (*Rubus ursinus*) – FAC, pacific willow (*Salix lasiandra*) – FACW, and pennyroyal – OBL. Other hydrophytic vegetation present but not dominant included fiddle dock (*Rumex pulcher*) – FAC, California wild rose (*Rosa californica*) – FAC, curly dock – FAC, bog rush (*Juncus effusus*) – FACW, and English plantain – FAC. Since the areas surrounding the Haehl Creek tributary contain a variety of dominant hydrophytic species according to the ACOE, the vegetation criterion for wetlands was met.

Data points within this area typically consisted of a layer to 13 inches with a Munsell Moist color of 10YR 3/2 and contained 8 – 20 percent redoxomorphic concentrations in the matrix of 2.5YR 3/6. All data points met the requirements of the Redox Dark Surface indicator for hydric soils; therefore these soils meet the ACOE hydric soils criterion for wetlands.

Hydrology indicators identified included surface soil cracks and water-stained leaves, which are primary indicators for hydrology and thus meet the minimum ACOE hydrology criterion for wetlands.

Corresponding upland data points were taken to help determine the upland/wetland boundary (data points 5a, 7a, and 8a).

Non-Wetland Waters

Areas that were determined to be non-wetland waters include unvegetated sections of the bed and bank of the Haehl Creek and Davis Creek tributaries, and areas within the OHWM that were determined not the be wetlands. Data points 5, 7, and 8 were taken within the vegetated portions

of the Haehl Creek tributary channel and were subsequently characterized as wetlands. The remaining portions of the Haehl Creek tributary and the Davis Creek tributary in the review area were largely unvegetated, however, these areas exhibited a defined OHWM and were mapped as non-wetland waters.

CONCLUSIONS

A total of 1.07 acres of potential waters of the U.S. were mapped in the review area, consisting of approximately 0.87 acre of potential wetlands and 0.20 acre of non-wetland waters, as shown in Figure 4 and summarized in Table 1 below.

Table 1: Summary of Potential Jurisdictional Waters in the Review Area

Type	Total
Seasonal Wetland Depressions	*0.50 acre*
Adjacent Seasonal Wetlands	*0.37 acre*
Wetlands Subtotal	0.87 acre
Non-Wetland Waters	0.20 acre
Total	**1.07 acres**

The findings and conclusions presented in this report, including the location and extent of wetlands and other waters subject to regulatory jurisdiction, represent the professional opinion of LSA. These findings and conclusions should be considered preliminary until verified by the ACOE. Please refer to the attached Request for Jurisdictional Determination and Preliminary Jurisdictional Determination Form.

Please contact me at 916-772-7450 or Anna.VanZuuk@lsa.net if you have any questions about the delineation.

Sincerely,

LSA Associates, Inc.

Anna Van Zuuk
Assistant Biologist/Botanist

Attachments:

Figures 1 – 7
Wetland Data Sheets
Preliminary Jurisdictional Delineation Form
Request for Jurisdictional Determination Form

LSA

LEGEND

Project Location

FIGURE 1

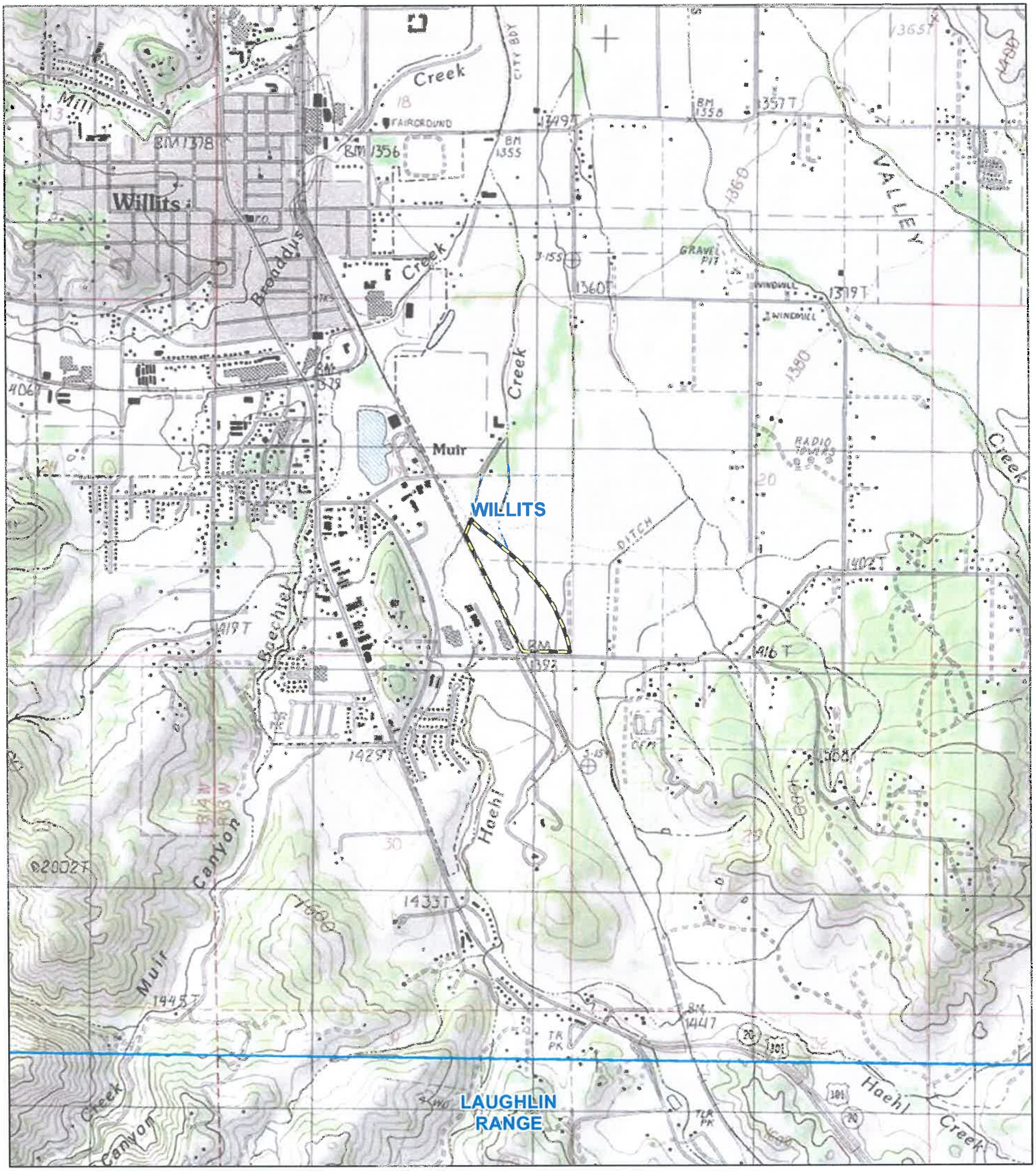
CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS1801.01

Regional Location

0 2.5 5
Miles

SOURCE: ESRI World Street Map (2016)

I:\DGS1801.01\GIS\Reports\PJD\Fig1_Regional_loc.mxd (12/11/2018)



LSA

FIGURE 2

LEGEND

Review Area - (27.79 ac)

USGS 7.5' Quad Boundaries

0 1000 2000

FEET

CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS1801.01

Project Vicinity on Topographic Base

SOURCE: USGS 7.5-minute topographic quadrangle, Willits, Calif (1991, ed. 1991)

I:\DGS1801.01\GIS\Reports\PJD\Fig2_Prj_loc_topo.mxd (12/11/2018)

LSA

LEGEND

Review Area - (27.79 ac)

FIGURE 3

N

0 250 500

FEET

SOURCE: ESRI World Imagery (09/2017)

I:\DGS1801.01\GIS\Reports\PJD\Fig3_Prj_vicin_aerial.mxd (12/11/2018)

CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Project Vicinity on Aerial Base

LSA

LEGEND

Review Area - (27.79 ac)

Vegetation Communities - (27.79 ac)

Bentgrass Meadow - (23.37 ac)

Oregon Ash Grove - (0.54 ac)

Valley Oak Riparian - (3.88 ac)

0 100 200
FEET

SOURCE: Basemap - ESRI World Imagery (08/2017); Mapping - LSA (11/2018)

I:\DGS1801.01\GIS\Reports\PJD\Fig4_Plant_comm.mxd (12/11/2018)

FIGURE 4

CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS1801.01

Vegetation Communities in the Review Area

LSA

FIGURE 5

LEGEND

Review Area - (27.79 ac)

NRCS Soil Classifications

128 - Gielow sandy loam, 0 to 5 percent slopes

216 - Xerochrepts-Haploxeralfs-Argixerolls complex, 30 to 50 percent slopes, low ffd

0 100 200
FEET

CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS1801.01

NRCS Soil Classifications

SOURCE: ESRI World Imagery (08/2017); NRCS Soil Survey of Napa County (1978)

I:\DGS1801.01\GIS\Reports\PJD\Fig5_Soils.mxd (12/11/2018)

LSA

LEGEND

Review Area - (27.79 ac)

Data Point

Potential Jurisdictional Waters of the U.S. - (1.07 ac)

Adjacent Seasonal Wetlands - (0.37 ac)

Seasonal Wetland Depressions - (0.50 ac)

Non-Wetland Waters - (0.20 ac)

0 100 200
FEET

SOURCE: Basemap - ESRI World Imagery (08/2017); Mapping - LSA (11/2018)

I:\DGS1801.01\GIS\Reports\PJD\Fig6_Juris_wtrs.mxd (12/11/2018)

FIGURE 6

CCC Ukiah Residential Center
City of Willits, Mendocino County, California
LSA Project No. DGS1801.01

Potential Jurisdictional Waters of the U.S.

Data Point 1.

Data Point 2.

Data Point 2a.

Data Points 3 and 3a.

LSA

FIGURE 7

CCC Ukiah Residential Center at 440 E. Hill Road
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Representative Photos

Source: LSA (11/2018)

Data Points 4 and 4a.

Data Point 5.

Data Point 5a.

Data Point 6.

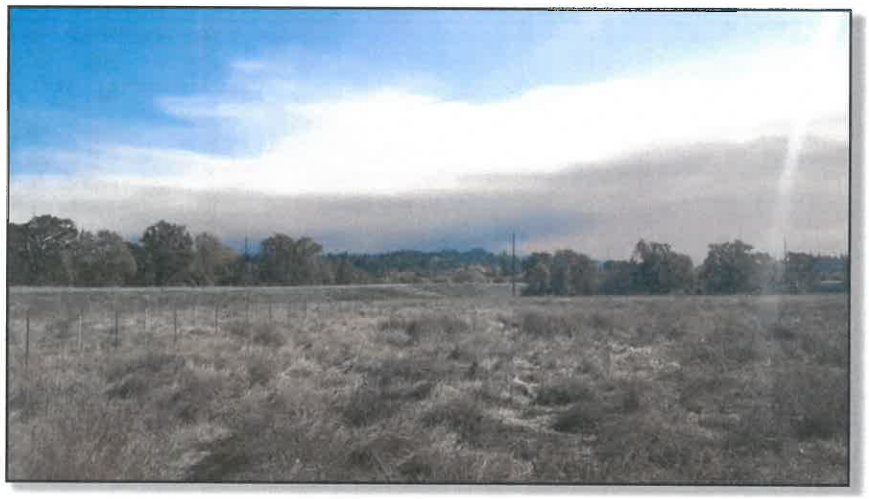
FIGURE 7

CCC Ukiah Residential Center at 440 E. Hill Road
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Representative Photos

Source: LSA (11/2018)

P:\DGS1801.01\PJD\Figure 7 - Representative Photos.docx (12/12/18)



Data Point 6a.

Data Point 7.

Data Point 7a.

Data Points 8 and 8a.

LSA

FIGURE 7

CCC Ukiah Residential Center at 440 E. Hill Road
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Representative Photos

Source: LSA (11/2018)

P:\DGS1801.01\PJD\Figure 7 - Representative Photos.docx (12/12/18)

Data Points 9 and 9a.

Data Point 10.

Data Points 12 and 12a.

Data Points 13 and 13a.

FIGURE 7

LSA

CCC Ukiah Residential Center at 440 E. Hill Road
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Representative Photos

Source: LSA (11/2018)

P:\DGS1801.01\PJD\Figure 7 - Representative Photos.docx (12/12/18)

Data Point 14.

Data Points 15 and 15a.

Davis Creek tributary.

Wetlands adjacent to the Willits Bypass, outside the review area.

LSA

FIGURE 7

CCC Ukiah Residential Center at 440 E. Hill Road
City of Willits, Mendocino County, California
LSA Project No. DGS 1801.01

Representative Photos

Source: LSA (11/2018)

P:\DGS1801.01\PJD\Figure 7 - Representative Photos.docx (12/12/18)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPARTMENT OF GENERAL SERVICES State: CA Sampling Point: 1

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: TOPOGRAPHICAL DEPRESSION

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. AGROSTIS STOLONIFERA	40	Y	FACW
2. PLANTAGO LANCEOLATA	20	Y	FAC
3. CICHORIUM INTYBUS	6	N	FACU
4. MENTHA PULEGIUM	4	N	OBL
5. JUNCUS PATENS?	20	Y	FACW
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11"	10YR 3/2	100	—	—	—	—	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

PIT DUG IN CENTER OF DEPRESSION.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >11"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >11"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCL UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 2

Investigator(s): A. VANZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. MENTHA PULEGIUM	10	Y	OBL
2. PHALARIS AQUATICA	3	N	FACU
3. CICHORIUM INTYBUS	15	Y	FACU
4. HORDIUM MARINUM	15	Y	FAC
5. AGROSTIS STOLONIFERA	8	N	FACW
6. FESTUCA PERENNIS	8	N	FAC
7. CAREX SP.	10	Y	OBL
8. JUNCUS PATENS?	7	N	FACW
	76 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 24 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10 YR 3/2	92	2.5 YR 4/8	8	C	PL	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ✓ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 2A

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:
PAIRED UPLAND DATA POINT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. RUMEX ACETOSELLA	17	Y	FACU
2. CICHORIUM INTYBUS	7	N	FACU
3. AGROSTIS STOLONIFERA	70	Y	FACW
4. EPILOBIUM BRACHYCARPUM	1	N	UPL
5. DAUCUS CAROTA	5	N	UPL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	24	x 4 =	96
UPL species	6	x 5 =	30
Column Totals:	100 (A)		266 (B)

Prevalence Index = B/A = 2.66

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 2A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/2	100	—	—	—	—	CLAY LOAM	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GEEI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 3

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata	5	Y	FACU
2.			
3.			
4.			
	5 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Mentha pulegium	100	Y	FACW
2. Rumex crispus	2	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	102 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/1	90	5YR 4/6	10	C	M		silt

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 3a

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: upland point adjacent to seasonal wetland. Obvious vegetation change.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Bromus minor	1	N	UPL
2. Plantago lanceolata	5	N	FAC
3. Phalaris aquatica	2	N	FACU
4. Carex sp.	5	N	OBL
5. Bromus hordeaceus	1	N	FACU
6. AGROSTIS STOLONIFERA	90	Y	FACW
7.			
8.			
	104 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 3 CA

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR 3/2	90	5YR 4/6	10	C	M		S:14

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >10"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >10"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 4

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. MENTHA PULEGIUM	2	N	OBL
2. RUMEX CRISPUS	1	N	FAC
3. PHALARIS AQUATICA	2	N	FACU
4. AGROSTIS STOLONIFERA	100	Y	FACW
5.			
6.			
7.			
8.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/2	91	2.5YR 4/6	9	C	M		silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 4a

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: PAIRED UPLAND DATA POINT

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus sp.	20	Y	FACW
2. Plantago lanceolata	25	Y	FAC
3. AGROSTIS STOLONIFERA	50	Y	FACW
4. Cynodon dactylon	5	N	FACU
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 4a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10YR3/2	98	2.5YR 3/6	2	C	M		silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

DOES NOT MEET 5% REDOX REQUIREMENT FOR F6(b)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): –

Water Table Present? Yes _____ No ✓ Depth (inches): > 13"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): > 13"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 5

Investigator(s): A. VAN ZOUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. QUERCUS LOBATA	45	Y	FACW
2.			
3.			
4.			
	45 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. RUBUS URSINUS	35	Y	FAC
2. SYMPHORICARPUS ALBUS	6	N	FACU
3.			
4.			
5.			
	41 = Total Cover		
Herb Stratum (Plot size: _____)			
1. RUMEX PULCHER	12	N	FAC
2. JUNCUS BALTICUS	55	Y	FACW
3. ROSA CALIFORNICA	8	N	FAC
4. RUMEX CRISPUS	1	N	FAC
5.			
6.			
7.			
8.			
	76 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 23 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR 3/1	88	2.5YR 3/6	12	C	M	COBBLY SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 5A

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: PAIRED UPLAND DATA POINT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. PHALARIS AQUATICA	40	Y	FACU
2. CYNOSURUS ECHINATUS	20	Y	UPL
3. DACTYLIS GLOMERATA	25	Y	FACU
4. PLANTAGO LANCEOLATA	3	N	FAC
5. CICHORIUM INTYBUS	5	N	FACU
6. CYPERUS SP.	1	N	FAC
7. DAUCUS CAROTA	3	N	UPL
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	4	x 3 =	12
FACU species	70	x 4 =	280
UPL species	23	x 5 =	115
Column Totals:	97 (A)		407 (B)

Prevalence Index = B/A = 4.20

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 5A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9"	10YR 3/2	100	—	—	—	—	SILTY CLAY	
9-13"	10 YR 3/2	100	—	—	—	—	COBBLY	+/- GRAVEL

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >13"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >13"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 RJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 6

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Mentha pulegium	90	Y	OBL
2. Phalaris aquatica	5	N	FACU
3. Juncus balticus	3	N	FACW
4. Plantago lanceolata	2	N	FAC
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10YR3/2	95	2.5YR 4/6	5	C	M/PL		silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 6A

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: PAIRED UPLAND DATA POINT

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. AGROSTIS STOLONIFERA	65	Y	FACW
2. PLANTAGO LANCEOLATA	10	N	FAC
3. MENTHA PULEGIUM	6	N	OBL
4. CICHORIUM INTYBUS	8	N	FACU
5. JUNCUS PATENS	8	N	FACW
6. CONVOLVULUS ARVENSIS	1	N	UPL
7. PHALARIS AQUATICA	5	N	FACU
8.			
	103 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	6	x 1 =	6
FACW species	73	x 2 =	146
FAC species	10	x 3 =	30
FACU species	13	x 4 =	52
UPL species	1	x 5 =	5
Column Totals:	103 (A)		239 (B)

Prevalence Index = B/A = 2.32

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 6A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12"	10 YR 3/2	99	2.5 YR 4/6	1	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 7

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes ✓	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus lobata	50	Y	FACU
2.			
3.			
4.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)			
1. Rubus ursinus	5	Y	FAC
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: _____)			
1. Juncus patens	30	Y	FACW
2. Rumex pulcher	5	N	FAC
3. Juncus effusus	3	N	FACW
4. Daucus pulegium	3	N	OBL
5.			
6.			
7.			
8.			
	41	= Total Cover	
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____	= Total Cover	

% Bare Ground in Herb Stratum 59 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	3	x 1 =	3
FACW species	33	x 2 =	66
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	96 (A)		299 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10YR 3/2	92	2.5YR 3/6	8	C	M		Silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): 7 13"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): 7 13"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 RJD, GERI HULSE - STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 7a

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks: See Data point 4a

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. JUNCUS SP.	20	Y	FACW
2. PLANTAGO LANCEOLATA	25	Y	FAC
3. AGROSTIS STOLONIFERA	50	Y	FACW
4. CICHORIUM INTYBUS	5	N	FACU
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 7A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10 YR 3/2	98	2.5 YR 3/6	2	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

DOES NOT MEET 5% REDOX REQUIREMENT FOR F6(b)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): >13"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >13"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 6

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix lasiandra	3	Y	FACW
2.			
3.			
4.			
	3 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Mentha PULEGIUM	40	Y	OBL
2. Juncus patens	60	Y	FACW
3. Plantago lanceolata	3	N	FAC
4. SOLIDAGO SP.	5	N	FACU
5. SYMPHORICARPOS ALBUS	1	N	FACU
6.			
7.			
8.			
	109 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: Y

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10YR 3/2	80	2.5YR 3/6	20	C	M		Silty Clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >13"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >13"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 8a

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

See data point 5a

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. PHALARIS AQUATICA	40	Y	FACU
2. CYNOSURUS ECHINATUS	20	Y	UPL
3. DACTYLIS GLOMERATA	25	Y	FACU
4. PLANTAGO LANCEOLATA	3	N	FAC
5. CICHORIUM INTYBUS	5	N	FACU
6. CYPERUS SP.	1	N	FAC
7. DAUCUS CAROTA	3	N	UPL
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 8A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9"	10YR 3/2	100					SILTY CLAY	
9-13"	10YR 3/2	100					COBBLY	+/- GRAVEL

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): 7/8"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): 7/8"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 9

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. MENTHA PULEGIUM	90	Y	OBL
2. CONVOLVULUS ARVENSIS	2	N	UPL
3. RUMEX CRISPUS	2	N	FSC
4. AGROSTIS STOLONIFERA	6	N	FACW
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11"	10YR 3/4	95	2.5YR 3/6	5	C	M		s.ty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ✓ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >11"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >11"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTE City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 9A

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:
PAIRED UPLAND DATA POINT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. DAUCUS CAROTA	6	N	UPL
2. PLANTAGO LANCEOLATA	21	Y	FAC
3. JUNCUS SP.	6	N	FACW
4. BROMUS HORDEACEOUS	5	N	FACU
5. CICHORIUM INTYBUS	12	N	FACU
6. CYNOSAURUS ECHINATUS	3	N	UPL
7. AGROSTIS STOLONIFERA	40	Y	FACW
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 9A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7"	10 YR 3/2	100	—	—	—	—	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): >7"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >7"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GEZI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 10

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. QUERCUS LOBATA	35	Y	FACU
2. FRAXINUS LATIFOLIA	35	Y	FACW
3.			
4.			
	70 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. RUBUS URSINUS	6	N	FAC
2. RUMEX PULCHER	15	Y	FAC
3. CAREX DENSA	10	N	OBL
4. JUNCUS PATENS	3	N	FACW
5.			
6.			
7.			
8.			
	34 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 66 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8"	10 YR 3/2	90	5 YR 4/6	10	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): >8"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >8"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GEEI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 11

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No ✓	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. QUERCUS LOBATA	80	Y	FACU
2.			
3.			
4.			
	80 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No ✓

Remarks:

SOIL

Sampling Point: 11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9"	10 YR 3/2	75	5YR 4/6	25	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): 79"

Saturation Present? (Includes capillary fringe) Yes ___ No ✓ Depth (inches): 79"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2016

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 12

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. MENTHA PULEGIUM	35	Y	OBL
2. JUNCUS PATENS	15	Y	FACW
3. CAREX SP.	20	Y	OBL
4. PHALARIS AQUATICA	3	N	FACW
5. AGROSTIS STOLONIFERA	5	N	FACW
6. RUMEX CRISPUS	2	N	FAC
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 17 % Cover of Biotic Crust 3

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: _____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10"	10YR 3/2	85	2.5YR 3/4	15	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ✓ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ✓ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): >16"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >16"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 1dg

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes _____ No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus latifolia	10	Y	FACW
2.			
3.			
4.			
	10 = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Juncus patens	10	N	FACW
2. Cyperus infibers	2	N	FACW
3. RUMEX CRISPUS	2	N	FAC
4. Mentha PULEGIUM	10	N	OBL
5. Convolvulus arvensis	1	N	UPL
6. B. mus hordeaceus	5	N	FACU
7. AGROSTIS STOLONIFERA	75	Y	FACW
8.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: _____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 12A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	92	2.5YR 3/6	8	C	M		s. lty clay
6-12"	10YR 3/2	100	—	—	—	—		s. lty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks: hydric soils present in upper 6 inches only. indicates sheet flows on surface

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 RJD, GERI HULSE – STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 13

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. MENTHA PULEGIUM	75	Y	OBL
2. FESTUCA PERENNIS	15	N	FAC
3. CICHORIUM INTYBUS	2	N	FACU
4. BROMUS HORDACEUS	2	N	FACU
5.			
6.			
7.			
8.			
	94 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 6 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10"	10 YR 3/2	95	5 YR 4/6	5	C	M	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): ___

Water Table Present? Yes ___ No ✓ Depth (inches): >10"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >10"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 RJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 13a

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Cyperus involucratus	8	N	FACW
2. AGROSTIS STOLONIFERA	65	Y	FACW
3. Plantago lanceolata	10	N	FAC
4. Phalaris aquatica	5	N	FACW
5. Daucus carota	8	N	UPL
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 13a

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13"	10YR3/2	100	—	—	—	—		5.1kg clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): —

Water Table Present? Yes _____ No ✓ Depth (inches): > 13"

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): > 13"

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 14

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes ✓	No _____	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Mentha PULEGIUM	80	Y	OBL
2. Cyperus eragrostis	2	N	FACW
3. Convolvulus arvensis	1	N	UPL
4. Juncus patens	20	Y	FACW
5. _____			
6. _____			
7. _____			
8. _____			
	103 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6"	10YR 3/2	95	2.5YR 3/6	5	C	M		silty clay
6-12	10YR 3/2	100	—	—	—	—	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks: redox only in top 5.x inches. indicator of what flows only no ponding.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >12"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >12"

Wetland Hydrology Present? Yes ___ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CCC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 15

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓ No _____	**Is the Sampled Area within a Wetland?** Yes ✓ No _____
Hydric Soil Present?	Yes ✓ No _____	
Wetland Hydrology Present?	Yes ✓ No _____	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. Mentha pulegium	90	Y	OBL
2. Rumex crispus	5	N	FAC
3. Phalaris canariensis	5	N	FACU
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1. _____			
2. _____			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7"	10YR3/2	95	2.5YR3/6	5	C	M		silty clay
7-13"	10YR3/2	100	—	—	—	—		silty clay

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✓ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ✓ No ___

Remarks:

See Data point sorting

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ✓ Drift Deposits (B3) (Nonriverine)
- ✓ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ✓ Depth (inches): —

Water Table Present? Yes ___ No ✓ Depth (inches): >13"

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >13"

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: CLC UKIAH RESIDENTIAL CENTER City/County: WILLITS Sampling Date: 11/08/2018

Applicant/Owner: DEPT. OF GENERAL SERVICES State: CA Sampling Point: 15 cq

Investigator(s): A. VAN ZUUK & M. TRUEBLOOD Section, Township, Range: _____

Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____

Subregion (LRR): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No ✓
Hydric Soil Present?	Yes _____	No ✓	
Wetland Hydrology Present?	Yes _____	No ✓	

Remarks:

S-1-R 13 cq

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. CICHORIUM INTYBUS	8	N	FACU
2. AGROSTIS STOLONIFERA	65	Y	FACW
3. PLANTAGO LANCEOLATA	16	N	FAC
4. PHALARIS AQUATICA	5	N	FACU
5. DAUCUS CAROTA	8	N	UPL
6.			
7.			
8.			
	96 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 4 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ✓ No _____

Remarks:

SOIL

Sampling Point: 15A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13"	10YR3/2	100	—	—	—	—	SILTY CLAY	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No ✓ Depth (inches): —

Water Table Present? Yes ____ No ✓ Depth (inches): >13"

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >13"

Wetland Hydrology Present? Yes ____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

2016 PJD, GERI HULSE-STEPHENS

Remarks:

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

District Office: San Francisco District | File/ORM #: | PJD Date: Dec 12, 2018

State: CA | City/County: Mendocino County

Nearest Waterbody: Haehl Creek

Location: TRS, LatLong or UTM: Latitude 39.393709, Longitude -123.338751

Name/ Address of Person Requesting PJD: Stephanie Coleman, Department of General Services, 707 3rd Street, 4th Floor, West Sacramento, CA 95605

Identify (Estimate) Amount of Waters in the Review Area:

Non-Wetland Waters: 1,293 linear ft | width 0.23 acres | Stream Flow: Ephemeral

Wetlands: 0.87 acre(s) | Cowardin Class: Palustrine, emergent

Name of Any Water Bodies on the Site Identified as Section 10 Waters: Tidal: | Non-Tidal:

☐ Office (Desk) Determination
☑ Field Determination: Date of Field Trip: 11/08/2018

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☑ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: LSA
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - ☐ Office concurs with data sheets/delineation report.
  - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☑ U.S. Geological Survey map(s). Cite quad name: Willits
- ☑ USDA Natural Resources Conservation Service Soil Survey. Citation: Mendocino County
- ☐ National wetlands inventory map(s). Cite name:
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:
- ☐ 100-year Floodplain Elevation is:
- ☑ Photographs: ☑ Aerial (Name & Date): DigitalGlobe Aerial Imagery, September 2017
  - ☐ Other (Name & Date):
- ☐ Previous determination(s). File no. and date of response letter:
- ☑ Other information (please specify): 2016 PJD conducted by Geri Hulse-Stephens

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and Date of Regulatory Project Manager (REQUIRED)

Signature and Date of Person Requesting Preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A - Sites

District Office	San Francisco District	File/ORM #		PJD Date:	Dec 12, 2018
State	CA	City/County	Mendocino County	Person Requestinq PJD	

Site Number	Latitude	Longitude	Cowardin Class	Est. Amount of Aquatic Resource in Review Area	Class of Aquatic Resource
SW-1	39.396270	-123.340608	Palustrine, emergent	0.07 ac	Non-Section 10 Wetland
SW-2	39.395752	-123.339903	Palustrine, emergent	0.14 ac	Non-Section 10 Wetland
SW-3	39.394818	-123.339940	Palustrine, emergent	0.02 ac	Non-Section 10 Wetland
SW-4	39.395560	-123.339460	Palustrine, emergent	<0.01 ac	Non-Section 10 Wetland
SW-5	39.395007	-123.339158	Palustrine, emergent	0.11 ac	Non-Section 10 Wetland
SW-6	39.393684	-123.339121	Palustrine, emergent	0.16 ac	Non-Section 10 Wetland

Notes:

SW-7 - 39.392917, -123.339128; Palustrine, emergent; 0.10 ac; Non-Section 10 Wetland
SW-8 - 39.395096, -123.338798; Palustrine, emergent; 0.02 ac; Non-Section 10 Wetland
SW-9 - 39.393775, -123.337692; Palustrine, emergent; 0.10 ac; Non-Section 10 Wetland
SW-10 - 39.393363, -123.337845; Palustrine, emergent; 0.01 ac; Non-Section 10 Wetland
SW-11 - 39.392902, -123.338154; Palustrine, emergent; 0.01 ac; Non-Section 10 Wetland
SW-12 - 39.392739, -123.337832; Palustrine, emergent; <0.01 ac; Non-Section 10 Wetland
SW-13 - 39.392544, -123.337839; Palustrine, emergent; <0.01 ac; Non-Section 10 Wetland
SW-14 - 39.392534, -123.337764; Palustrine, emergent; <0.01 ac; Non-Section 10 Wetland
SW-15 - 39.392327, -123.337709; Palustrine, emergent; 0.06 ac; Non-Section 10 Wetland
SW-16 - 39.391864, -123.337832; Palustrine, emergent; 0.06 ac; Non-Section 10 Wetland
SW-17 - 39.392100, -123.337356; Palustrine, emergent; 0.01 ac; Non-Section 10 Wetland
NWW-1 - 39.395475, -123.339411; Riverine; 0.04 ac; Non-Section 10 Non-Wetland
NWW-2 - 39.394479, -123.338971; Riverine; 0.02 ac; Non-Section 10 Non-Wetland
NWW-3 - 39.393423, -123.339040; Riverine; 0.05 ac; Non-Section 10 Non-Wetland
NWW-4 - 39.392261, -123.336879; Riverine; 0.09 ac; Non-Section 10 Non-Wetland

REQUEST FOR JURISDICTIONAL DETERMINATION

This form should be used when a jurisdictional determination (JD) is required from the U.S. Army Corps of Engineers, Sacramento District. It is intended to help both the requestor and the Corps in determining which type of JD, if any, is appropriate. Use of the form is optional; however the information and consent is needed to complete a JD. If you are applying for a Department of the Army permit, you do not need to request a JD. A jurisdictional determination is not required to process a permit application. At the time an application is submitted, the Corps will assume the aquatic resources on the parcel/within the review area are waters of the United States for the purpose of making a permit decision. With no JD requested, the permit application may be processed more quickly. The permittee retains the ability to request a JD any time during or after the permit application review process.

I am requesting the U.S. Army Corps of Engineers, Sacramento District, complete a jurisdictional determination for the parcel/review area located at:

Street Address: 440 E. Hill Road City: Willits County: Mendocino
State: CA Zip: 95490 Section: 19, 20 Township: 18N Range: 13W
Latitude (decimal degrees): 39.393709 Longitude (decimal degrees): -123.338751
The approximate size of the review area for the JD is 27.79 acres. **(Please attach location map)**

Choose one:
- ☐ I currently own this property.
- ☐ I plan to purchase this property.
- ☑ I am an agent/consultant acting on behalf of the requestor.
- ☐ Other:

Choose one:
- ☐ I am requesting an Approved JD.
- ☑ I am requesting a Preliminary JD.
- ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

Reason for request: (check all that apply)
- ☐ I intend to construct/develop a project or perform activities on this parcel/review area which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities on this parcel/review area which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- ☑ I intend to construct/develop a project or perform activities on this parcel/review area which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- ☐ I intend to construct/develop a project or perform activities on this parcel/review area which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- ☐ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district's list of navigable waters under Section 10 of the Rivers and Harbors Act of 1899 and/or is subject to the ebb and flow of the tide.
- ☐ A JD is required in order to obtain my local/state authorization.
- ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel/review.
- ☐ I believe that the parcel/review area may be comprised entirely of dry land.

Other:

Attached Information:
- ☑ Maps depicting the general location and aquatic resources within the review area consistent with Map and Drawing Standards for the South Pacific Division Regulatory Program (Public Notice February 2016, http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/)
- ☑ Aquatic Resources Delineation Report, if available, consistent with the Sacramento District's Minimum Standards for Acceptance (Public Notice January 2016, http://1.usa.gov/1V68lYa)

By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

*Signature: Anne Van Zuuk Date: 12/12/2018
Name: Anna Van Zuuk Company name: LSA
Address: 201 Creekside Ridge Court, Suite 250
Roseville, California 95678
Telephone: 916-772-7450 Email: Anna.VanZuuk@lsa.net

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.
Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.
Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

ATTACHMENT D

Preliminary Jurisdictional Determination

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102

February 21, 2019

Regulatory Division

Subject: File No. 2019-00044N

Ms. Anna VanZuuk
LSA Associates
201 Creekside Ridge Court
Suite 250
Roseville, CA 95678

Dear Ms. Vanzuuk:

This correspondence is in reference to your submittal of January 3, 2019, on behalf of the Department of General Services, requesting a preliminary jurisdictional determination of the extent of navigable waters of the United States and waters of the United States occurring on a 27.79 -acre undeveloped lot, near the town of Willits, Mendocino County, California at latitude 39.393245°N longitude -123.338324°W.

All proposed discharges of dredged or fill material occurring below the plane of ordinary high water in non-tidal waters of the United States; or below the high tide line in tidal waters of the United States; and within the lateral extent of wetlands adjacent to these waters, typically require Department of the Army authorization and the issuance of a permit under Section 404 of the Clean Water Act of 1972, as amended, 33 U.S.C. § 1344 *et seq*.

The enclosed delineation map titled "Preliminary Jurisdictional Determination for the California Conservation Corps Ukiah Residential Center," in 1 sheet and date certified February 13, 2019, depicts the extent and location of wetlands and other waters of the United States, within the boundary area of the site that **may be** subject to U.S. Army Corps of Engineers' regulatory authority under Section 404 of the Clean Water Act. This preliminary jurisdictional determination is based on the current conditions of the site, as verified during a review of available digital photographic imagery, and a review of other data included in your submittal. While this preliminary jurisdictional determination was conducted pursuant to Regulatory Guidance Letter No. 16-01, *Jurisdictional Determinations*, it may be subject to future revision if new information or a change in field conditions becomes subsequently apparent. The basis for this preliminary jurisdictional determination is fully explained in the enclosed *Preliminary Jurisdictional Determination Form.* You are requested to sign and date this form and return it to this office within two weeks of receipt.

You are advised that the preliminary jurisdictional determination may **not** be appealed through the U.S. Army Corps of Engineers' *Administrative Appeal Process*, as described in 33 C.F.R. pt. 331 (65 Fed. Reg. 16,486; Mar. 28, 2000). Under the provisions of 33 C.F.R Section 331.5(b)(9), non-appealable actions include preliminary jurisdictional determinations since they

are considered to be only advisory in nature and make no definitive conclusions on the jurisdictional status of the water bodies in question. However, you may request this office to provide an approved jurisdictional determination that precisely identifies the scope of jurisdictional waters on the site; an approved jurisdictional determination may be appealed through the *Administrative Appeal Process*. If you anticipate requesting an approved jurisdictional determination at some future date, you are advised not to engage in any on-site grading or other construction activity in the interim to avoid potential violations and penalties under Section 404 of the Clean Water Act. Finally, you may provide this office new information for further consideration and request a reevaluation of this preliminary jurisdictional determination.

You may refer any questions on this matter to L. Kasey Sirkin of my Regulatory staff by telephone at 707-443-0855 or by e-mail at l.k.sirkin@usace.army.mil. All correspondence should be addressed to the Regulatory Division, North Branch, referencing the file number at the head of this letter.

The San Francisco District is committed to improving service to our customers. My Regulatory staff seeks to achieve the goals of the Regulatory Program in an efficient and cooperative manner while preserving and protecting our nation's aquatic resources. If you would like to provide comments on our Regulatory Program, please complete the Customer Service Survey Form available on our website: http://www.spn.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Rick M Bottoms, Ph.D.
Chief, Regulatory Division

Enclosures

Copy Furnished (w/ encls):

Ms. Stephanie Coleman
Department of General Services
Real Estate Division
707 Third Street, MS-509
West Sacramento, CA 95605

Electronic Copy Furnished

NCRWQCB, Santa Rosa, CA Brandon.Stevens@waterbaords.ca.gov

ATTACHMENT E

Wildlife Observed Onsite

California Conservation Corps Willits Center Project (Ukiah Center Relocation Project)

Wildlife Observed On-Site (19 May 2019)

Species Name	Scientific Name
Amphibians	
Sierran treefrog	*Pseudacris sierra*
Birds	
Acorn woodpecker	*Melanerpes formicivorus*
American crow	*Corvus brachyrhynchos*
Ann'as hummingbird	*Calypte anna*
Barn swallow	*Hirundo rustica*
Black phoebe	*Sayornis nigricans*
California scrub-jay	*Aphelocoma californica*
California quail	*Callipepla californica*
Common raven	*Corvus corax*
Red-shouldered hawk	*Buteo lineatus*
Song sparrow	*Melospiza melodia*
Spotted towhee	*Pipilo maculatus*
Turkey vulture	*Cathartes aura*
Mammals	
Black-tailed deer	*Odocoileus hemionus*

ATTACHMENT F

Species Evaluation

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Plants						
Grass alisma *(Alisma gramineum)*	–	–	2B.2	Assorted shallow freshwater marshes and swamps (1,280'–5,906').	June–August	Potential to occur. Suitable habitat present onsite.
Scabrid alpine tarplant *(Anisocarpus scabridus)*	-	-	1B.3	Metamorphic, rocky soils in upper montane coniferous forest (5,413'–7,546').	(June) July-August (September)	Absent. No suitable habitat present onsite.
Humboldt County milkvetch *(Astragalus agnicidus)*	–	CE	1B.1	Openings, disturbed areas, and sometimes roadsides in broadleafed upland forest and North Coast coniferous forest (394'–2,625').	April–September	Low potential to occur. Marginal habitat present onsite.
Rattan's milk-vetch *(Astragalus rattanii* var. *rattanii)*	–	–	4.3	Gravelly streambanks in chaparral, cismontane woodland, and lower montane coniferous forest (98'–2,707').	April–July	Low potential to occur. Marginal habitat present onsite.
Sonoma sunshine *(Blennosperma bakeri)*	FE	CE	1B.1	Mesic valley and foothill grasslands and vernal pools (33'–361').	March–May	Absent. Outside of known elevation range for this species.
Watershield *(Brasenia schreberi)*	–	–	2B.3	Freshwater marshes and swamps (98'–7,218').	June–September	Potential to occur. Suitable habitat present onsite.
Three-fingered morning-glory *(Calystegia collina* ssp. *tridactylosa)*	–	–	1B.2	Serpentinite, rocky, or gravelly soils in openings in chaparral and cismontane woodland (0'–1,969').	April–June	Absent. No suitable habitat present onsite.
Glory brush *(Ceanothus gloriosus* var. *exaltatus)*	–	–	4.3	Chaparral (98'–2,001').	March–June (August)	Absent. No suitable habitat present onsite.
Deep-scarred cryptantha *(Cryptantha excavata)*	–	–	1B.1	Sandy or gravelly soils in cismontane woodland (328'–1,640').	April–May	Low potential to occur. Marginal habitat present onsite.
Mountain lady's slipper *(Cypripedium montanum)*	-	-	4.2	Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest (607'-7,300').	March-August	Potential to occur. Suitable habitat present onsite.
Swamp larkspur *(Delphinium uliginosum)*	–	–	4.2	Serpentinite seeps in chaparral and valley and foothill grassland (1,115'–2,001').	May–June	Absent. No suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Roderick's fritillary *(Fritillaria roderickii)*	–	CE	1B.1	Coastal bluff scrub, coastal prairie, and valley and foothill grassland (49'–1,312').	March–May	Potential to occur. Suitable habitat present onsite.
Pacific gilia *(Gilia capitata* ssp. *pacifica)*	–	–	1B.2	Coastal bluff scrub, openings in chaparral, coastal prairie, and valley and foothill grassland (16'–5,463').	April–August	Potential to occur. Suitable habitat present onsite.
Congested–headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*)	–	–	1B.2	Sometimes roadsides, and valley and foothill grassland (66'–1,837').	April–November	Potential to occur. Suitable habitat present onsite.
Glandular western flax *(Hesperolinon adenophyllum)*	–	–	1B.2	Usually serpentinite soils in chaparral, cismontane woodland, and valley and foothill grassland (492'–4,314').	May–August	Low potential to occur. Marginal habitat present onsite.
Thin–lobed horkelia (*Horkelia tenuiloba*)	–	–	1B.2	Mesic, sandy openings of broadleafed upland forest, chaparral, and valley and foothill grassland (164'–1,640').	May–July (August)	Low potential to occur. Marginal habitat present onsite.
Burke's goldfields *(Lasthenia burkei)*	FE	CE	1B.1	Mesic sites within meadows and seeps and vernal pools (49'–1,969')	April–June	Potential to occur. Suitable habitat present onsite.
Contra Costa Goldfields *(Lasthenia conjugens)*	FE	–	1B.1	Mesic sites within cismontane woodland, playas with alkaline soils, valley and foothill grassland, and vernal pools (0'–1,542').	March–June	Potential to occur. Suitable habitat present onsite.
Baker's meadowfoam *(Limnanthes bakeri)*	–	CR	1B.1	Meadows and seeps, freshwater marshes and swamps, vernally mesic valley and foothill grassland, and vernal pools (574'–2,986').	April–May	Potential to occur. Suitable habitat present onsite.
Milo Baker's lupine (*Lupinus milo-bakeri*)	–	CT	1B.1	Cismontane woodland often along roadsides and valley and foothill grassland (1,296'–1,411').	June–September	Potential to occur. Suitable habitat present onsite.
Baker's navarretia *(Navarretia leucocephala* ssp. *bakeri)*	–	–	1B.1	Vernal pools and mesic areas within cismontane woodlands, lower montane coniferous forests, meadows and seeps, and valley and foothill grasslands (16'–5,709').	April–July	Potential to occur. Suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Gairdner's yampah *(Perideridia gairdneri* ssp. *gairdneri)*	–	–	4.2	Vernal pools and vernally mesic areas in broadleafed upland forest, chaparral, coastal prairie, and valley and foothill grassland (0'–2,001').	June–October	Potential to occur. Suitable habitat present onsite.
White-flowered rein orchid *(Piperia candida)*	–	–	1B.2	Broadleafed upland forest, lower montane coniferous forest, and North Coast coniferous forest, sometimes on serpentinite soils (98'-4,298').	(March) May-September	Potential to occur. Suitable habitat present onsite.
Mayacamas popcornflower *(Plagiobothrys lithocaryus)*	–	–	1A	Mesic areas in chaparral, cismontane woodland, and valley and foothill grassland (984'–1,476').	April–May	Potential to occur. Suitable habitat present onsite.
Davy's semaphore grass *(Pleuropogon californicus* var. *davyi)*	–	–	4.3	Cismontane woodland, lower montane coniferous forest, and meadows and seeps (492'–2,001').	March–June	Potential to occur. Suitable habitat present onsite.
North Coast semaphore grass *(Pleuropogon hooverianus)*	–	CT	1B.1	Open and mesic areas in broadleafed upland forest, meadows and seeps, and North Coast coniferous forest (33'–2,201').	April–June	Present. There is a documented CNDDB occurrence of this species onsite and this species was observed and mapped during the site visit.
Nuttall's ribbon-leaved pondweed *(Potamogeton epihydrus)*	–	–	2B.2	Assorted shallow freshwater marshes and swamps (1,211'–7,126').	(June) July–September	Potential to occur. Suitable habitat present onsite.
Great burnet (*Sanguisorba officinalis*)	–	–	2B.2	Often serpentinite soils in bogs and fens, broadleafed upland forest, meadows and seeps, marshes and swamps, North Coast coniferous forest, and riparian forest (0'–10').	July–October	Absent. Outside of known elevation range for this species.
Two-fork clover (Showy Indian clover) *(Trifolium amoenum)*	FE	–	1B.1	Coastal bluff scrub and valley and foothill grassland, sometimes in serpentinite substrates (16'–1,362').	April–June	Potential to occur. Suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Santa Cruz clover *(Trifolium buckwestiorum)*	–	–	1B.1	Gravelly sites and on the margins of broadleafed upland forest, cismontane woodland, and coastal prairie (344'–2,001').	April–October	Low potential to occur. Marginal habitat present onsite.
Oval–leaved viburnum *(Viburnum ellipticum)*	–	–	2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest communities (705'–4,593).	May–June	Low potential to occur. Marginal habitat present onsite.
Humboldt County wyethia *(Wyethia longicaulis)*	-	-	4.3	Broadleafed upland forest, coastal prairie, and lower montane coniferous forest, sometimes on roadsides (2,461'-5,003').	May-July	Absent. Outside of known elevation range for this species.
Amphibians						
California red-legged frog (*Rana draytonii*)	FT	-	SSC	Lowlands or foothills at waters with dense shrubby or emergent riparian vegetation. Adults must have aestivation habitat to endure summer dry down.	May 1-November 1	Absent. The Project Site is outside of the geographic range of this species.
Foothill yellow-legged frog (*Rana boylii*)	-	CC	SSC	Foothill yellow-legged frogs can be active all year in warmer locations, but may become inactive or hibernate in colder climates. At lower elevations, foothill yellow-legged frogs likely spend most of the year in or near streams. Adult frogs, primarily males, will gather along main-stem rivers during spring to breed.	May–October	Potential to occur. Suitable habitat present onsite.
Red-bellied newt (*Taricha rivularis*)	-	-	SSC	Inhabits primarily redwood forest, but also found within mixed conifer, valley-foothill woodland, montane hardwood and hardwood-conifer habitats. Requires rapid streams with rocky substrate for breeding and egg-laying.	February-November	Potential to occur. Suitable habitat present onsite.
Reptiles						
Northwestern pond turtle (*Actinemys marmorata*)	-	-	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches.	April-September	Potential to occur. Suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Birds						
Northern goshawk *(Accipiter gentilis)*	-	-	SSC	Nesting occurs in mature to old-growth forests composed primarily of large trees with high canopy closure. In California, nests are built primarily in conifer trees in the Sierra Nevada, Cascade and northwestern coastal Ranges.	March-August	Absent. No suitable habitat present onsite.
Northern spotted owl *(Strix occidentalis caurina)*	FT	CC	SSC	Found from Marin Co. through coastal ranges north to British Columbia; breeds in old growth mature forest. They use forests with greater complexity and structure.	March-June	Absent. No suitable habitat present onsite.
Sharp-shinned hawk *(Accipiter striatus)*	-	-	CDFW WL	Nests in trees in most forest types with at least some conifers. In California, nesting occurs in Sierra Nevada and Cascade Ranges (foothills to tree line) and northwestern coastal range.	nest (April-August); winter CV (September-April)	Low potential to occur. Winter foraging habitat present onsite, no suitable nesting habitat.
Western snowy plover *(Charadrius nivosus nivosus)*	FT	-	BCC, SSC	Nests on the ground, on open sandy coastal beaches, barrier islands, barrens shores of inland saline lakes, on river bars, and man-made ponds such as wastewater ponds, dredge spoils, and salt evaporation ponds.	March-September	Absent. No suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Yellow-billed cuckoo (*Coccyzus americanus*)	FT	CE	BCC	Breeds in California, Arizona, Utah, Colorado, and Wyoming. In California, they nest along the upper Sacramento River and the South Fork Kern River from Isabella Reservoir to Canebrake Ecological Reserve. Other known nesting locations include Feather River (Butte, Yuba, Sutter counties), Prado Flood Control Basin (San Bernadino and Riverside Co.), Amargosa River and Owens Valley (Inyo Co.), Santa Clara River (Los Angeles Co.), Mojave River and Colorado River (San Bernardino Co.). Nests in riparian woodland. Winters in South America.	June 15-August 15	Absent. No suitable habitat present onsite.
Yellow-breasted chat (*Icteria virens*)	-	-	SSC	In California, breeds in Klamath Mountains, inner Northern Coast Range south to San Francisco Bay, locally distributed from Santa Clara Co. south to San Diego Co. Sacramento and San Joaquin Valleys, along west slope of Sierra Nevada from the Feather River to Kern River, Mono and Inyo Cos. In the west, nesting habitat includes dense riparian and shrubby.	May-August	Potential to occur. Suitable habitat present onsite.
Yellow warbler (*Setophaga petechia*)	-	-	SSC, BCC	Breeding range includes most of California, except Central Valley (isolated breeding locales on Valley floor, Stanislaus, Colusa, and Butte counties), Sierra Nevada range above tree line, and southeastern deserts. Nesting habitat includes riparian vegetation near streams and meadows. Winters in Mexico south to South America.	May-August	Potential to occur. Suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Mammals						
American badger *(Taxidea taxus)*	-	-	SSC	Drier open stages of most shrub, forest, and herbaceous habitats with friable soils.	Any season	Low potential to occur. Marginal suitable habitat present onsite.
Fisher- West Coast Discreet Population Segment *(Pekania pennanti)*	-	CT	SSC	Northern coniferous and mixed forests of Canada and northern United States. Occurs in intermediate to large-tree stages of dense coniferous forests and deciduous-riparian habitats with greater than 50-percent canopy closure.	Any season	Absent. No suitable habitat present onsite.
Humboldt marten *(Martes caurina humboldtensis)*	-	CE	SSC	There are three subspecies of the American marten, and Humboldt marten is known from coastal northwestern California. Currently, the Humboldt marten is known only from southern Del Norte county and northern Humboldt County. Habitat consists of various mixed evergreen forests with more than 40-percent crown closure, with large trees and snags. Use cavities in large trees, snags, stumps, logs, or burrows, caves, and crevices in rocky areas. Habitat with limited human use is important. Require a variety of different-aged stands, particularly old-growth conifers and snags.	Any season	Absent. No suitable habitat present onsite.
Ringtail (*Bassariscus astutus*)	-	CFP	-	Most often found in riparian corridors in forested, shrubby habitats. Dens in rock outcrops, hollow trees and snags at low to middle elevations. Its range includes the North and South Coast Ranges, Sierra Nevada, Cascades, and the mountainous areas of the Mojave Desert.	Any season	Potential to occur. Suitable habitat present onsite.

Table F1. Special-Status Species Evaluated for the Project Site

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA	Other			
Sonoma tree vole *(Arborimus pomo)*	-	-	SSC	Distributed along the North Coast from Sonoma County to the Oregon border. Occurs in old-growth and other forests, usually Douglas fir, redwood, and montane hardwood-conifer habitats. A specialist on the needles of Douglas fir and grand fir, this species also uses fir needles for cover and nest construction. Nests can be located at the top of tall trees, or more rarely, at the base of fir trees under leaf litter.	Any season	Absent. No suitable habitat present onsite.
Townsend's big-eared bat *(Corynorhinus townsendii)*	-	-	SSC	Caves, mines, buildings, rock crevices, trees.	April-September	Low potential to occur. Marginal habitat present onsite.

Status Codes:

ESA	Endangered Species Act
CESA	California Endangered Species Act
FE	ESA listed, Endangered.
FT	ESA listed, Threatened.
BCC	USFWS Bird of Conservation Concern
CFP	California Fish and Game Code Fully Protected Species
CE	CESA or NPPA listed, Endangered.
CT	CESA or NPPA listed, Threatened.
CC	Candidate for CESA listing as Endangered or Threatened.
CR	CESA- or NPPA-listed, Rare.
CDFW WL	CDFW Watch List
SSC	CDFW Species of Special Concern
1B	California Rare Plant Ranks (CRPRs)/Rare or Endangered in California and elsewhere.
2B	CRPR /Rare or Endangered in California, more common elsewhere.
4	CRPR /Plants of Limited Distribution - A Watch List.
0.1	Threat Rank/Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

California Conservation Corps Facility
Willits Center
Draft Transportation Impact Analysis

Prepared for:

ECORP Consulting, Inc.

October 2019

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FEHR PEERS

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1. Introduction

This report presents the analysis and findings of a Transportation Impact Analysis (TIA) prepared for the California Conservation Corps (CCC) Willits Center Project (Project) in the City of Willits (City), California. This chapter discusses the TIA purpose, analysis locations and scenarios, analysis methods, criteria used to identify significant impacts, and report organization.

Study Purpose

The purpose of this study is to evaluate the transportation impacts of the Project. The Project involves development of a new CCC operations center at 440 East Hill in Willits, California to accommodate the relocation of the existing CCC Ukiah Center. The proposed 26.7 acres site is located north of East Hill Road bounded by US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. The Project site vicinity map and analysis locations are shown on **Figure 1**.

The facility will consist of buildings for administration, housing, work areas, education, recreation, kitchen, and dining for a total building area of approximately 64,038 square feet (SF). A conceptual site plan is shown on **Figure 2**. Project construction is expected to begin in 2021, with an anticipated operational date in late 2023.

Analysis Locations and Scenarios

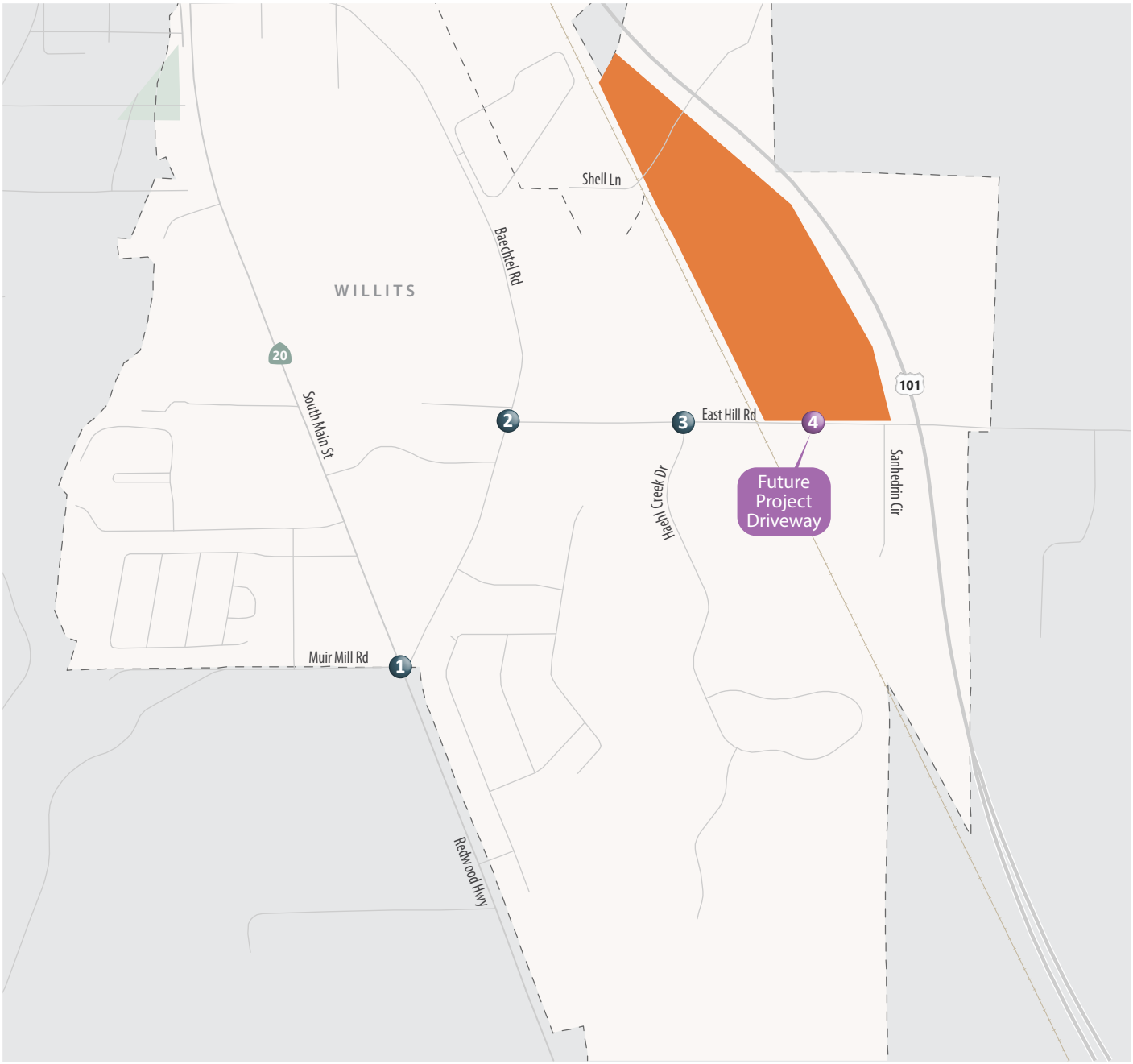
The scope of the traffic analysis and selection of study intersections was developed in consultation with the Project team. The base assumptions and technical methodologies were developed in conjunction with the City Traffic Engineer as part of the study approach and agreed to in a Methodologies and Assumptions Memorandum dated September 24, 2019. The Methodologies and Assumptions Memorandum is included in **Appendix A**.

The study intersections were selected in consultation with the Project team. Figure 1 identifies the four study intersections:

1. Main Street & Canyon Road/Baechtel Road (unsignalized)
2. Baechtel Road & Hill Road (unsignalized)
3. Haehl Creek Drive & Hill Road (unsignalized)
4. Future Project Driveway & Hill Road (unsignalized)

The study assumes the Project would be completed by year 2023 and is directed at analyzing the potential Project generated traffic impact on the local street system under both existing and future year traffic conditions. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing (2019) Conditions – traffic counts conducted for this study will be analyzed.
- Existing (2019) plus Project – the proposed project trip generation, trip distribution, and trip assignment estimates were added to the existing intersection and roadway segment counts.
- Future Year (2023) No Project – a 1% ambient growth rate per year based on the growth rate of the study area was applied to the existing counts.
- Future Year (2023) plus Project – the proposed project trip estimates were added to the Future Year No Project forecasts.



Project Site # Study Intersection

Figure 1
Study Area

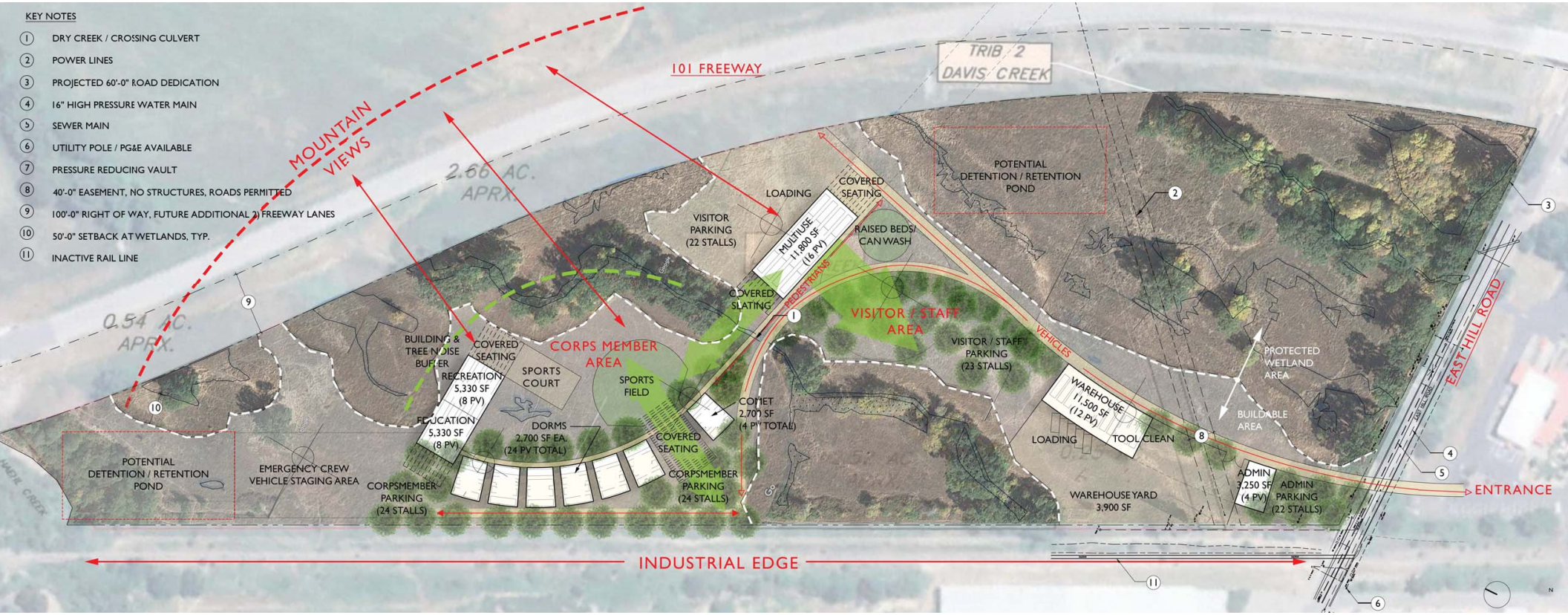


Figure 2
Conceptual Project Site Plan

Analysis Methods

Fehr & Peers conducted operations analysis at the study intersections during AM and PM peak hours. The Highway Capacity Manual (HCM) 6th Edition methodology was used to evaluate significant impacts at the four unsignalized study intersections.

Level of Service

The methodology assigns a qualitative letter grade that represents the operations of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. Descriptions of the LOS letter grades for intersections are provided in **Table 1**.

Table 1: Intersection LOS Criteria

Level of Service	Description	Signalized HCM Delay in Seconds	Unsignalized HCM Delay in Seconds
A	Signalized: Operations with very low delay occurring with favorable progression and/or short cycle length. Unsignalized: Little or no delay.	< 10.0	≤ 10.0
B	Signalized: Operations with low delay occurring with good progression and/or short cycle lengths. Unsignalized: Short traffic delays.	> 10.0 to 20.0	> 10.0 to 15.0
C	Signalized: Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. Unsignalized: Average traffic delays.	> 20.0 to 35.0	> 15.0 to 25.0
D	Signalized: Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. Unsignalized: Long traffic delays.	> 35.0 to 55.0	> 25.0 to 35.0
E	Signalized: Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. Unsignalized: Very long traffic delays.	> 55.0 to 80.0	> 35.0 to 50.0
F	Signalized: Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. Unsignalized: Extreme traffic delays with intersection capacity exceeded.	> 80.0	> 50.0

Source: *Highway Capacity Manual 6th Edition*

Regulatory Setting and Significance Criteria

The determination of significance for Project impacts is based on the City of Willits General Plan. The proposed impact criteria for this study are presented below.

Intersections

Impact criteria was applied per direction from the City of Willits General Plan. The acceptable Level of Service (LOS) for intersections in the City of Willits is D or better. Any intersection operating at a LOS of E or F is considered deficient. The following factors were used to assess significant impacts at the unsignalized intersections:

1. The intersection is projected to decline to LOS E or F from LOS D or better with the addition of traffic volumes associated with the proposed project, or an intersection operating at LOS E or F experiences increased delay with the addition of traffic volumes associated with the proposed project; **and**
2. The intersection meets peak hour signal warrants either caused by project volumes, or project volumes are added at an intersection that meets peak hour signal warrants in the baseline scenario(s).

The following parameters were used in the operations analysis:

- Synchro 10 software and HCM 6th Edition methodology were used to analyze study intersections.
- Worst case side street delay was reported for two-way stop-controlled intersections under the HCM 6th Edition methodology.
- A peak hour factor (PHF) based on observed conditions was used for the HCM analysis under Existing Conditions. Under Future Year Conditions a PHF of 0.92 was used.

Report Organization

This report is divided into eight chapters as described below:

- Chapter 1 – Introduction discusses the purpose and organization of the report.
- Chapter 2 – Existing Conditions describes the transportation system in the Project vicinity, including the surrounding roadway network morning and evening peak period intersection turning movement volumes, existing bicycle, pedestrian, and transit facilities, and intersection operations.

- Chapter 3 – Project Characteristics presents relevant Project information, such as the Project components and Project trip generation, distribution, and assignment.
- Chapter 4 – Existing Plus Project Traffic Conditions addresses the Existing Conditions with the Project and discusses Project vehicular impacts.
- Chapter 5 – Opening Year (2023) Conditions addresses the Future Conditions, without and with the Project, and discusses Project vehicular impacts.
- Chapter 6 – Site Plan Review describes Project access and circulation for all travel modes.
- Chapter 7 – Conclusion summarizes the findings of the analysis.

2. Existing Conditions

This chapter describes transportation facilities in the study area, including the surrounding roadway network, transit, pedestrian, and bicycle facilities in the Project site vicinity. Existing intersection operations are also described.

Roadway System

The Project site is in Willits, located north of East Hill Road bounded by US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. Land uses surrounding the Project site include hospitals, health services, and industrial. Regional access to the site is provided by U.S. Highway 101 (US-101) and State Route 20 (SR-20). Local access to the site is provided by Baechtel Road, Haehl Creek Drive, Hill Road, and Main Street. The following discusses the roadways that would provide access to the site and are most likely to experience direct traffic impacts, if any, from the proposed Project.

Baechtel Road is a north-south collector with one travel lane in each direction. The posted speed limit is 35 miles per hour (mph).

Haehl Creek Drive is a local collector with one travel lane in each direction. The posted speed limit is 25 mph.

Hill Road is a local collector with one travel lane in each direction. The posted speed limit it 40 mph

Main Street is a collector with one travel lane in each direction with a two-way left turn lane in the vicinity of the study area. The posted speed limit is 40 mph.

SR-20 is an east-west highway with one travel lane in each direction that runs through Northern California, from Sacramento to the Sierra Nevada.

US 101 is a north-south highway with one travel lane in each direction in the vicinity of the study area that runs through the states of California, Oregon, and Washington.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided on some portions of Baechtel Road, Haehl Creek Drive, Hill Road, and Main Street. Baechtel Road and Haehl Creek

Drive provide five-foot sidewalks on one side of the street in some portions. Main Street provides five-foot sidewalks on both sides of the street in some portions. Hill Road does not provide sidewalks.

Bicycle facilities and descriptions are as follows:

- **Bike paths (Class I)** – Bike paths provide a separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic. Such paths can be well situated along creeks, canals, and rail lines. Class I Bikeways can also offer opportunities not provided by the road system by serving as both recreational areas and/or desirable commuter routes.

- **Bike lanes (Class II)** – Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections).

- **Bike routes (Class III)** – Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and to provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes to encourage slow speeds and discourage non-local vehicle traffic via traffic diverters, chicanes, traffic circles, and/or speed tables. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.

- **Separated Bikeway (Class IV)** – Separated bikeways, also referred to as cycle tracks or protected bikeways, are bikeways for the exclusive use of bicycles which are physically separated from vehicle traffic. Separated Bikeways were recently adopted by Caltrans in 2015. Types of separation may include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking.

Baechtel Road provides Class II bike facilities. Haehl Creek Drive, Hill Road, and Main Street do not provide bicycle facilities within the study area. The City proposes future Class II facilities on Hill Road and Main Street and Class III facilities on Haehl Creek Drive (*City of Willits Bicycle and Pedestrian Specific Plan*, 2009).

Existing Transit Service

Transit service in Willits is provided by the Mendocino Transit Authority (MTA). The following routes service the study area:

Route 1: Willits Local runs Monday through Friday between approximately 7:00 AM and 6:30 PM with variable headways of about 60 to 75 minutes. Route 1 does not operate on weekends.

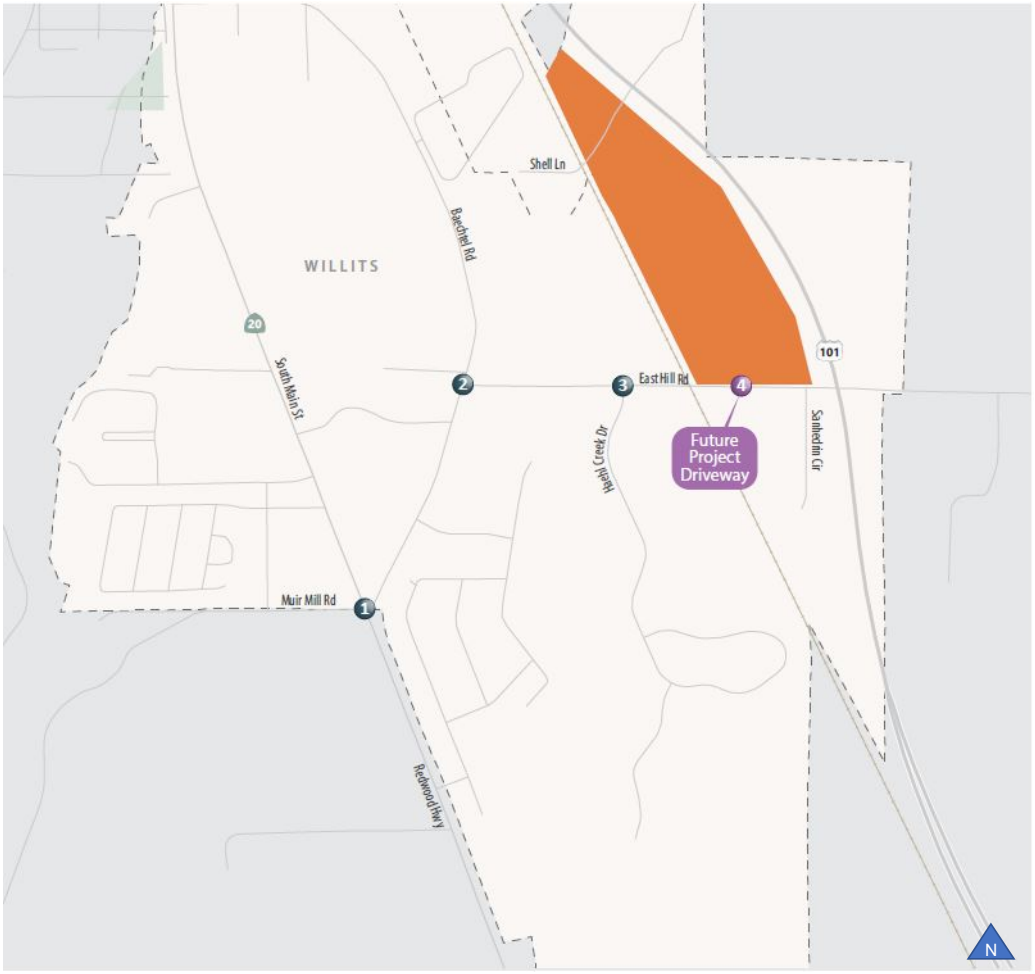
Route 20: Ukiah-Redwood Valley-Willits runs Monday through Friday between approximately 6:30 AM and 6:30 PM with variable headways of about 70 minutes. Route 20 does not operate one weekends.

Route 65: Mendocino-Ft. Bragg-Willits-Ukiah-Santa Rosa runs Monday through Saturday between approximately 6:30 AM and 7:45 PM and Sunday between approximately 6:30 AM and 6:00 PM. On Monday through Saturday, Route 65 serves bus stops in Willits between approximately 8:30 AM and 1:00 PM with 3-hour headways and between approximately 1:00 PM and 6:15 PM with 2-hour headways. On Sunday, Route 65 only makes one trip and serves bus stops in Willits between approximately 8:30 AM and 4:15 PM.

All three routes have stops through Willits on Main Street. The closest bus stops to the Project site are located on Main Street approximately 300 feet north of the intersection of Main Street and Baechtel Road.

Existing Traffic Counts

Existing morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection counts were conducted at the study intersections on Thursday, May 30, 2019. Roadway segment counts were also collected on the same day on Hill Road between Haehl Creek Drive and Sanhedrin Circle. Counts were conducted on a weekday while schools were in session. Existing peak hour intersection volumes, lane configurations, and traffic controls are provided on **Figure 3**. The traffic counts for Existing Conditions are provided in **Appendix B**.



Project Site # Study Intersection

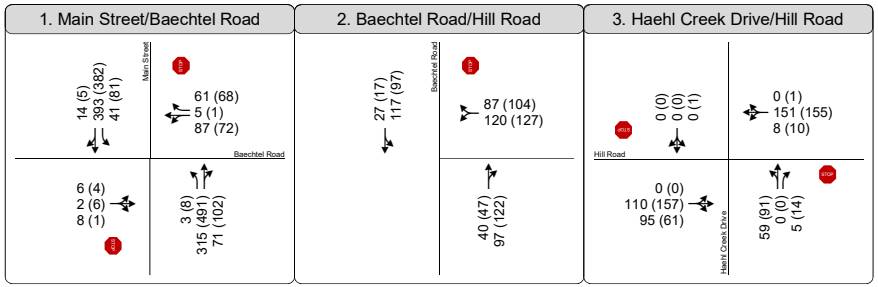


Figure 3
Peak Hour Traffic Volumes and Lane Configurations
Existing Conditions

Existing Operations Analysis

Intersection Operations

As summarized in **Table 2**, existing operations were evaluated using the methods described in Chapter 1 for the weekday AM and PM peak hours at the study intersections. The analysis was based on the volumes, lane configurations, and traffic control presented on **Figure 3**. Observed peak hour factors were used at all intersections for the existing analysis. Detailed intersection LOS calculation worksheets are presented in **Appendix C**. As shown, all study intersections currently operate within the level of service standards set by the City in both the AM and PM peak hours except for the intersection of Main Street and Baechtel Road in the PM peak hour.

Table 2: Existing Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Delay[2]	LOS
1. Main Street & Baechtel Road	TWSC	AM PM	29 **61**	D **F**
2. Baechtel Road & Hill Road	TWSC	AM PM	13 12	B B
3. Haehl Creek Drive & Hill Road	TWSC	AM PM	12 13	B B
4. Future Project Driveway & Hill Road	TWSC	AM PM	- -	- -

Notes: **Bold** text indicates potentially unacceptable intersection operations.
1. TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
2. For TWSC intersections, delay is reported for the worst movement.

Source: Fehr & Peers, 2019

Signal Warrants

To assess the need for signalization of stop-controlled intersections, the *2014 California Manual of Uniform Traffic Control* (CA MUTCD) (Caltrans, 2014) presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant were used in this study as a supplemental analysis tool to assess

operations at unsignalized intersections.[1] Only the intersection of Main Street and Baechtel Road meets peak hour signal warrants under Existing Conditions. Signal warrant analysis is presented in **Appendix D**.

[1] Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

3. Project Characteristics

This chapter provides an overview of the proposed Project components and addresses the proposed Project trip generation, distribution, and assignment characteristics, allowing for an evaluation of Project impacts on the surrounding roadway network. The amount of traffic associated with the Project was estimated using a three-step process:

1. **Trip Generation** – The *amount* of vehicle traffic entering/exiting the Project site was estimated.
2. **Trip Distribution** – The *direction* trips would use to approach and depart the site was projected.
3. **Trip Assignment** – Trips were then *assigned* to specific roadway segments and intersection turning movements.

Project Description

The Project involves development of a new CCC operations center at 440 East Hill in Willits, California to accommodate relocation of the existing CCC Ukiah Center. The proposed 26.7 acres site is located north of East Hill Road bounded by US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west.

The facility will consist of buildings for administration, housing, work areas, education, recreation, kitchen, and dining for a total building area of approximately 64,038 square feet (SF). The building sizes and number of full-time staff for each building are outlined in **Table 3**.

The site would house approximately 100 corps members. Corps members will live and take classes each daily for off-site projects in the region. Crews are expected to arrive or depart the site during the peak hours on weekdays. Corps members are not expected to travel to and from the site during weekdays unless they deploy with a crew.

The site will include 26 full time staff including administration and instructors, and 7-10 public visitors are expected daily. Public visitors, administrative staff, and instructors for the classes are expected to drive alone in a personal vehicle and arrive and depart during the peak hours from the site. Delivery vehicles, including USPS, UPS, FedEx, solid waste pick up, and supply and food deliveries, are expected to access the site during off-peak hours.

Table 3: Project Site Buildings and Staff

Building	Square Footage (SF)	Full-time Staff
Administration Building	3,363	6
Educational Building	6,268	10
Recreational Building	5,498	
Multi-Purpose Building w/ Kitchen & Dining	14,656	2
Warehouse Building	13,604	8
Six Dormitories	17,436 (2,908 each)	-
Comet (Boot Camp) Building	3,213	-
Hazardous Materials Storage Building	200	-
Total	**64,238**	**26**

Source: Fehr & Peers, 2019

Project Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates are created for the daily condition and for the peak one-hour period during the morning and evening commute when traffic volumes on the adjacent streets are typically the highest. Fehr & Peers developed trip generation estimates for the Project. Trip generation was based on the proposed operational characteristics of the site, including the number of corps members, visitors, and staff, hours of operation, and types of events and activities. Project trip generation estimates are presented in **Table 4**.

Project Trip Generation Estimates

As presented in **Table 4**, the Project is expected to generate an estimated net new external 101 daily trips, including 48 trips (36 inbound/12 outbound) during the AM peak hour and 48 trips (12 inbound/36 outbound) during the PM peak hour.

Table 4: Vehicle Trip Generation Rates

	Quantity (Vehicles)	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Staff								
Administration Building	6	12	6	0	6	0	6	6
Educational/Recreational Building	10	20	10	0	10	0	10	10
Multi-Purpose Building	2	4	2	0	2	0	2	2
Warehouse Building	8	16	8	0	8	0	8	8
Corps Members								
Crew Vehicles	12	24	0	12	12	12	0	12
Other								
Visitors	10	20	10	0	10	0	10	10
Deliveries	5	5	0	0	0	0	0	0
Total		**101**	**36**	**12**	**48**	**12**	**36**	**48**

Source: Fehr & Peers, 2019

Project Trip Distribution and Assignment

Project trip distribution refers to the directions of approach and departure that vehicles would take to access and depart the site. The geographic distribution of trips generated by the Project is dependent on characteristics of the street system serving the Project site, the level of accessibility of routes to and from the proposed Project site, and the locations of employment and residential areas to which patrons of the Project would be drawn. The trip distribution was finalized through conversations with City staff to ensure that the assumptions made were realistic and vetted. The resulting trip distribution percentages are shown on **Figure 4**. Project trips were then assigned to the roadway network based on the directions of approach and departure, as presented on **Figure 5**.

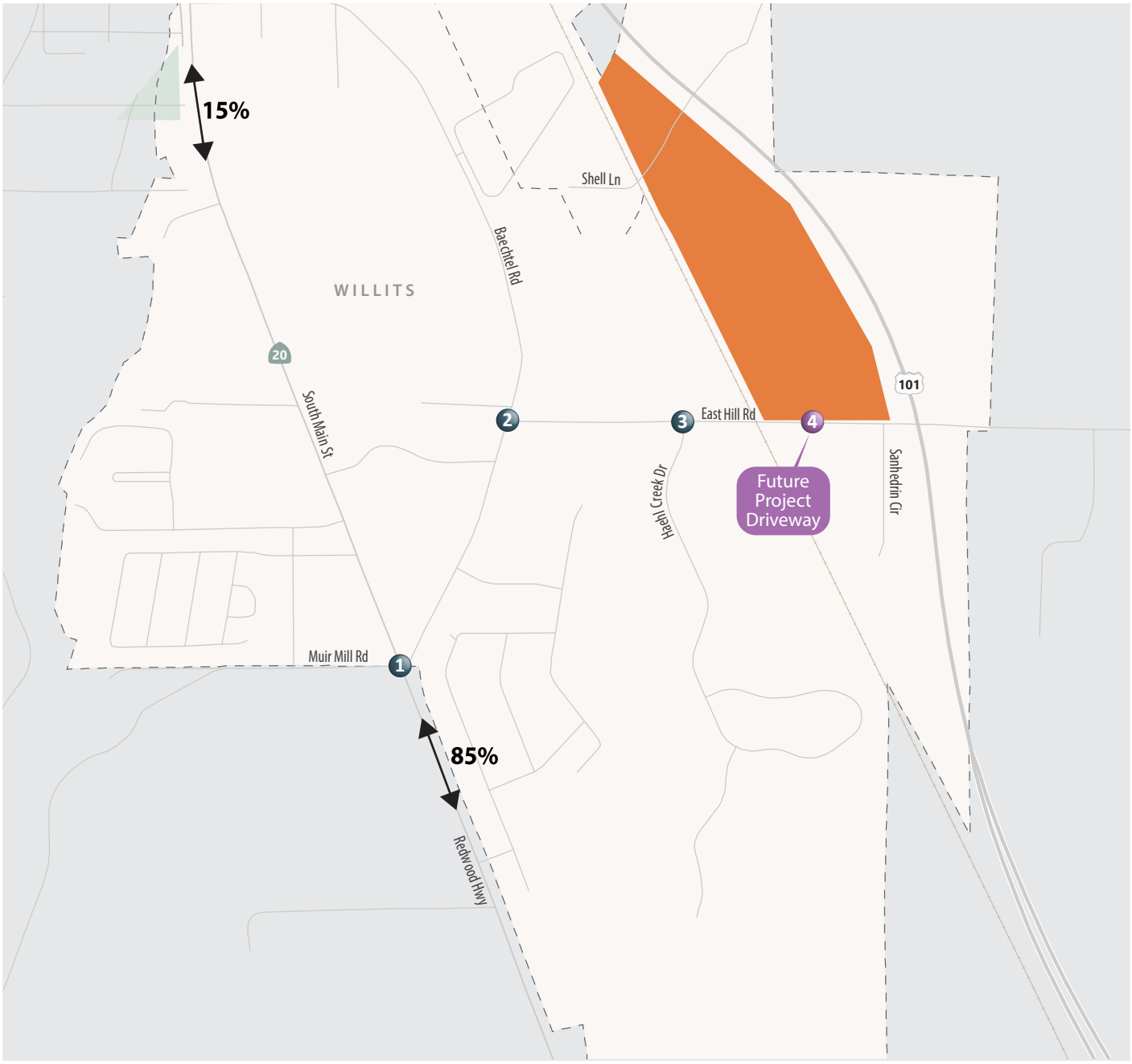
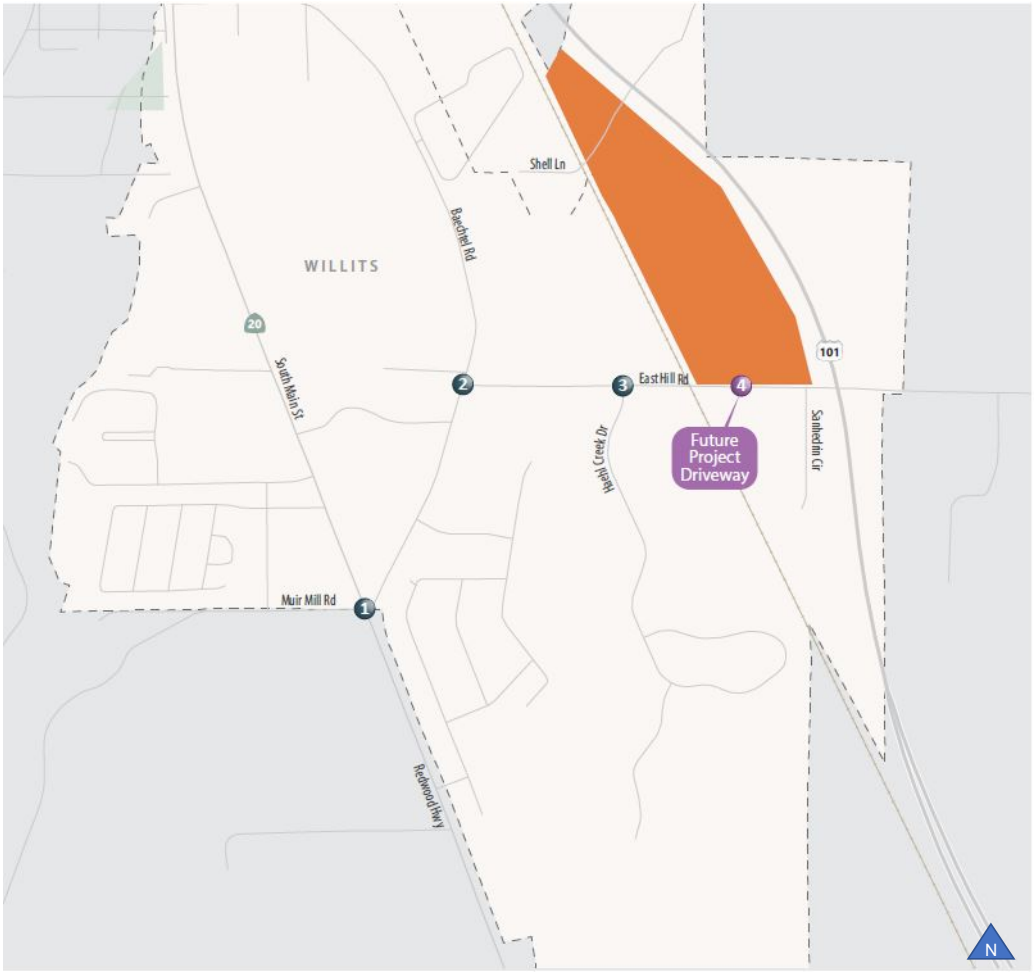


Figure 4
Project Trip Distribution



Project Site # Study Intersection

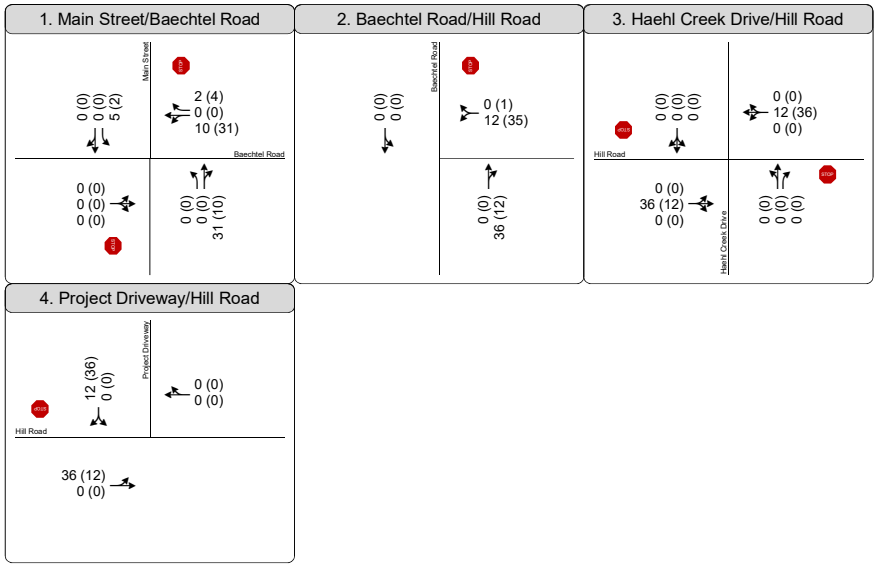


Figure 5
Peak Hour Traffic Volumes and Lane Configurations
Project Trip Assignment

Figure 4: Project Trip Distribution

Figure 5: Project Trip Assignment

4. Existing Plus Project Conditions

This chapter evaluates potential off-site transportation impacts under Existing Plus Project conditions.

Existing Plus Project Traffic Volumes

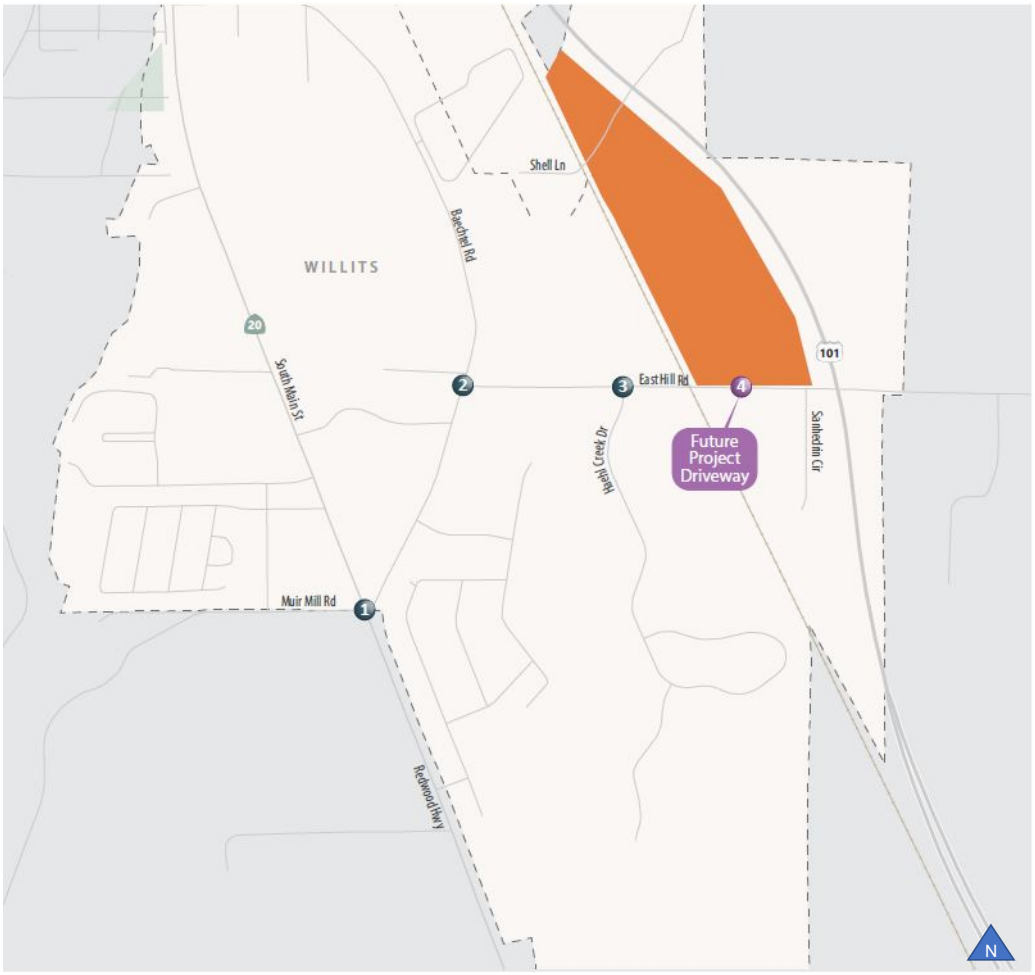
The Project traffic volumes were added to the existing traffic volumes to estimate the Existing Plus Project traffic volumes, as shown on **Figure 6**.

Analysis of Existing Plus Project Conditions

Intersection Operations

Existing Plus Project intersection operations were evaluated using the methods described in Chapter 1. The Existing Plus Project analysis results are presented in **Table 5.** As shown, all study intersections, except for the intersection of Main Street and Baechtel Road in the PM peak hour, currently operate within the level of service standards set by the City of Willits in both the AM and PM peak hours.

The addition of Project traffic would increase delay at all study intersections. In the Existing and Existing Plus Project conditions, all intersections except for the intersection of Main Street and Baechtel Road in the PM peak hour operate at an acceptable level of service. The addition of Project traffic further degrades the intersection of Main Street and Baechtel Road at LOS F in the PM peak hour.



Project Site # Study Intersection

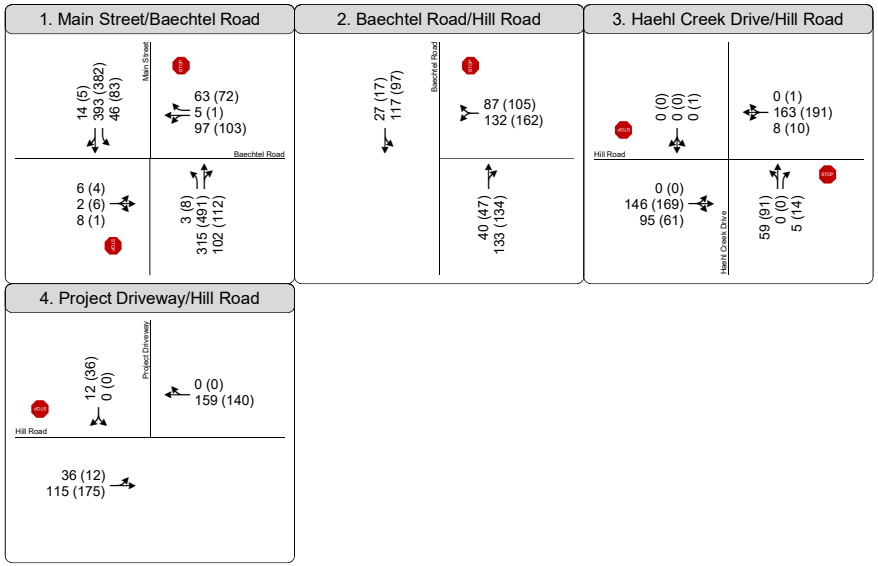


Figure 6
Peak Hour Traffic Volumes and Lane Configurations
Existing Plus Project

Table 5: Existing Plus Project Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Existing		Existing Plus Project	
			Delay[2]	LOS	Delay[2]	LOS
1. Main Street & Baechtel Road	TWSC	AM PM	29 **61**	D **F**	32 ***100***	D ***F***
2. Baechtel Road & Hill Road	TWSC	AM PM	13 12	B B	14 13	B B
3. Haehl Creek Drive & Hill Road	TWSC	AM PM	12 13	B B	13 13	B B
4. Future Project Driveway & Hill Road	TWSC	AM PM	- -	- -	9 9	A A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.
1. TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
2. For TWSC intersections, delay is reported for the worst movement.

Source: Fehr & Peers, 2019

Signal Warrants

To assess the need for signalization of stop-controlled intersections, the CA MUTCD presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant were used in this study as a supplemental analysis tool to assess operations at unsignalized intersections.[2] **Table 6** summarizes the signal warrant analysis. Signal warrant analysis is presented in **Appendix D**. The intersection at Main Street and Baehctel Road meets peak hour signal warrants in Existing and Existing Plus Project conditions.

[2] Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

Table 5: Existing Plus Project Conditions Peak Hour Signal Warrant Analysis

Intersection	Peak Hour	Existing	Existing Plus Project
		Warrant Met?	Warrant Met?
1. Main Street & Baechtel Road	AM PM	Yes Yes	**Yes** **Yes**
2. Baechtel Road & Hill Road	AM PM	No No	No No
3. Haehl Creek Drive & Hill Road	AM PM	No No	No No
4. Future Project Driveway & Hill Road	AM PM	- -	No No

Note: **Bold** text indicates significant impact.
Source: Fehr & Peers, 2019

Mitigation Measures

There is one significant impact under the Existing Plus Project conditions.

Impact Statement 1: Intersection 1 – Main Street & Baechtel Road

The Main Street and Baechtel Road intersection operates at a deficient LOS F during the PM peak hour prior to the addition of project traffic in the Existing condition. The addition of project traffic would worsen operations and increase delay. The intersection meets peak hour signal warrants under both Existing and Existing Plus Project conditions. Based on the significance criteria, which specifies an acceptable LOS D for unsignalized intersections, this is considered a ***significant*** impact.

> ***Mitigation Measure 1:*** The project applicant shall pay their fair share towards the installation of a traffic signal the intersection. The intersection meets peak hour signal warrants in the AM and PM peak hours in the Existing and Existing Plus Project conditions. These improvements would result in overall acceptable service levels, reducing the project's cumulative impact to a ***less-than-significant*** level, as shown in Error! Reference source not found.**7**.

Table 7: Existing Plus Project with Mitigation Peak Hour Intersection LOS Summary

Intersection	Peak Hour	Control[1]	Existing		Existing Plus Project		Control[1]	Existing Plus Project with Mitigation	
			Delay[2]	LOS	Delay[2]	LOS		Delay[2]	LOS
1. Main Street & Baechtel Road	AM	TWSC	29	D	32	D	Signal	5.9	A
	PM		**61**	**F**	***100***	***F***		6.2	A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.

1. TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
2. For TWSC intersections, delay is reported for the worst movement.

Source: Fehr & Peers, 2019

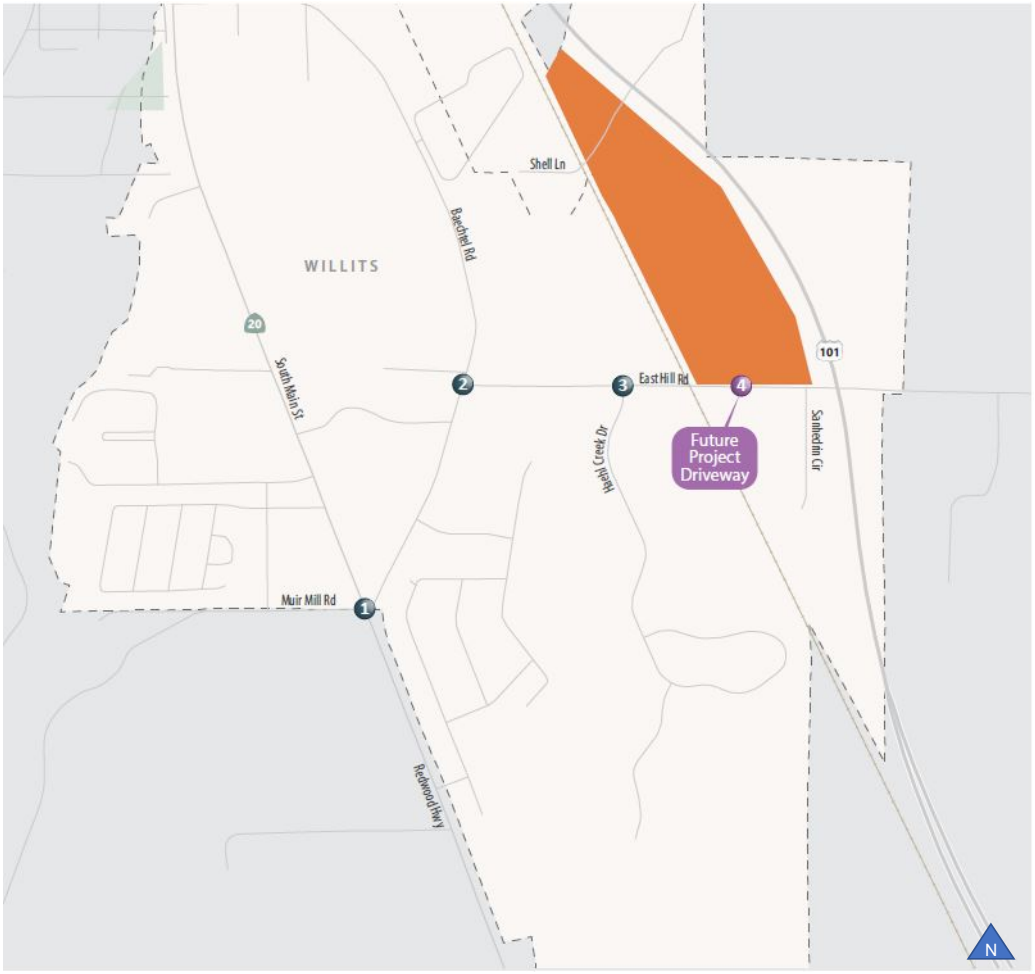
5. Opening Year (2023) Traffic Conditions

This chapter discusses the Opening Year (2023) traffic conditions both without and with the Project.

Opening Year Traffic Forecasts

Opening Year (2023) conditions were developed using an ambient growth rate of one percent (1%) per year. The Opening Year traffic volumes are presented in **Figure 7**.

The Project volumes were added to the Opening Year (2023) without Project traffic volumes to represent Opening Year Plus Project conditions, as presented on **Figure 8**.



Project Site # Study Intersection

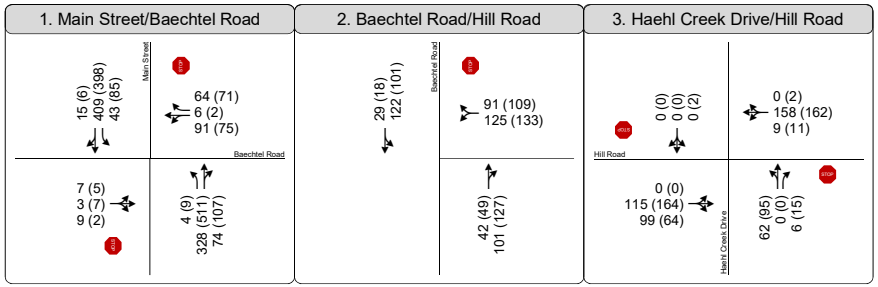
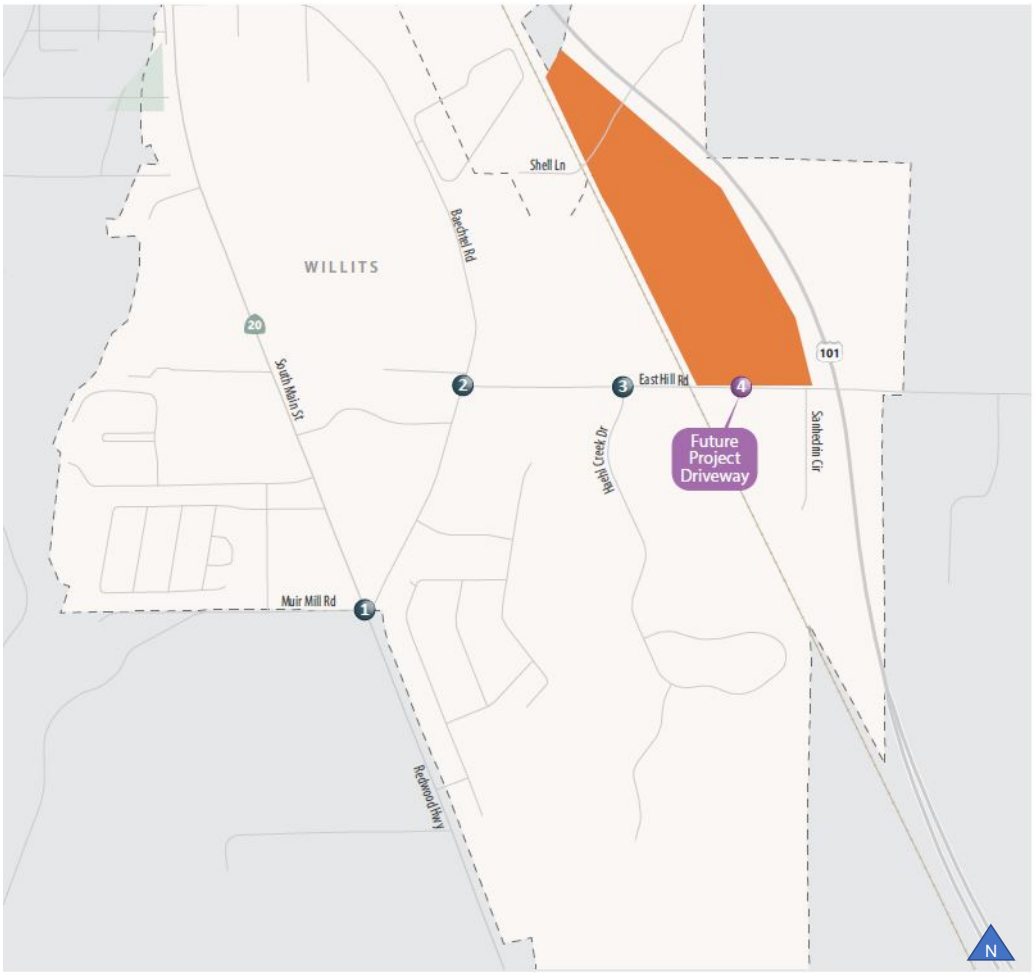


Figure 7
Peak Hour Traffic Volumes and Lane Configurations
Opening Year (2023)



Project Site # Study Intersection

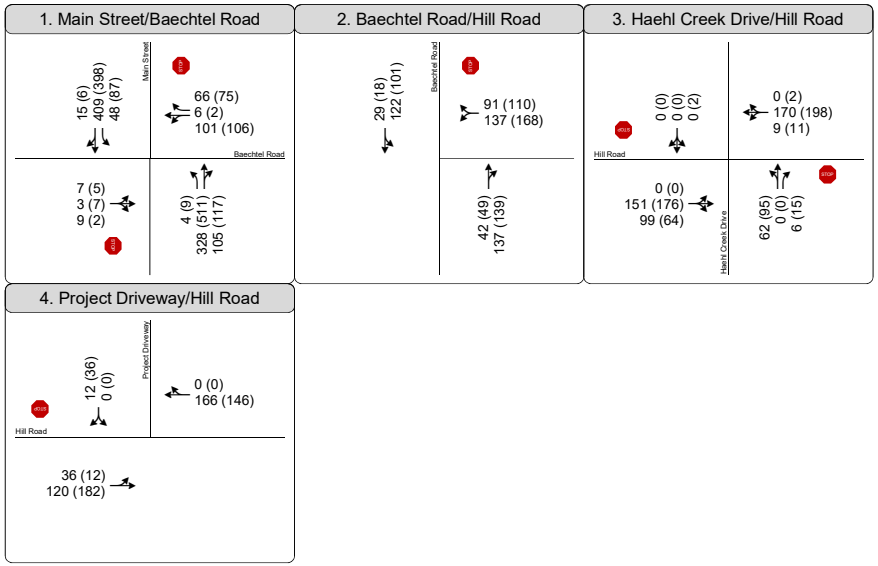


Figure 8
Peak Hour Traffic Volumes and Lane Configurations
Opening Year Plus Project (2023)

Analysis of Opening Year Conditions

Intersection Operations

Opening Year conditions with and without the Project were evaluated using the methods described in Chapter 1. For the analysis of cumulative conditions, peak hour factors, pedestrian, bicycle and heavy vehicle volumes were left unchanged from the analysis of Existing Condition. Peak hour factors were set to 0.92. The same signal timings were used for all Existing and Opening Year analyses. The analysis results presented in **Table 8** are based on the traffic volumes presented in **Figure 7** and Error! Reference source not found.**8**. In the Opening Year without Project conditions, the intersection of Main Street and Baechtel Road operates at an unacceptable level of service in the PM peak hour. In the Opening Year with Project conditions, the intersection of Main Street and Baechtel Road operates at an unacceptable level of service in both the AM and PM peak hours. The addition of Project traffic further degrades the intersection of Main Street and Baechtel Road from LOS E to LOS F in the AM peak hour and increases the delay at LOS F in the PM peak hour.

Table 8: Opening Year Conditions Peak Hour Intersection LOS Summary

Intersection	Control[1]	Peak Hour	Opening Year		Opening Year Plus Project	
			Delay[2]	LOS	Delay[2]	LOS
2. Main Street & Baechtel Road	TWSC	AM PM	33 **73**	D **F**	***38*** ***126***	***E*** ***F***
3. Baechtel Road & Hill Road	TWSC	AM PM	13 13	B B	14 14	B B
4. Haehl Creek Drive & Hill Road	TWSC	AM PM	12 13	B B	13 14	B B
5. Future Project Driveway & Hill Road	TWSC	AM PM	- -	- -	9 9	A A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.
1. TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
2. For TWSC intersections, delay is reported for the worst movement.

Source: Fehr & Peers, 2019

Signal Warrants

To assess the need for signalization of stop-controlled intersections, the CA MUTCD presents nine signal warrants. The Peak Hour Volume Warrant and the Peak Hour Delay Warrant was used in this study as a

supplemental analysis tool to assess operations at unsignalized intersections.[3] **Table 9** summarizes the signal warrant analysis. Signal warrant analysis is presented in **Appendix D**. The intersection at Main Street and Baechtel Road meets peak hour signal warrants in Opening Year and Opening Year Plus Project conditions, and thus meets one significant impact criteria.

Table 9: Opening Year Plus Project Conditions Peak Hour Signal Warrant Analysis

Intersection	Peak Hour	Opening Year	Opening Year Plus Project
		Warrant Met?	Warrant Met?
1. Main Street & Baechtel Road	AM PM	Yes Yes	**Yes** **Yes**
2. Baechtel Road & Hill Road	AM PM	No No	No No
3. Haehl Creek Drive & Hill Road	AM PM	No No	No No
4. Future Project Driveway & Hill Road	AM PM	- -	No No

Note: **Bold** text indicates significant impact.
Source: Fehr & Peers, 2019

Mitigation Measures

There is one significant impact under the Opening Year Plus Project condition.

Impact Statement 2: Intersection 1 – Main Street & Baechtel Road

The Main Street and Baechtel Road intersection operates at a deficient LOS E during the PM peak hour prior to the addition of project traffic in the Existing condition. The addition of project traffic would worsen operations and increase delay. The intersection meets peak hour signal warrants under both Opening Year

[3] Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the MUTCD and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.

and Opening Year Plus Project conditions Based on the significance criteria, which specifies an acceptable LOS D for unsignalized intersections, this is considered a ***significant*** impact.

> ***Mitigation Measure 2:*** The project applicant shall pay their fair share towards the installation of a traffic signal the intersection. The intersection meets peak hour signal warrants in the AM and PM peak hours in the Opening Year and Opening Year Plus Project conditions. These improvements would result in overall acceptable service levels, reducing the project's cumulative impact to a ***less-than-significant*** level, as shown in Error! Reference source not found.**10**.

Table 10: Opening Year Plus Project with Mitigation Peak Hour Intersection LOS Summary

Intersection	Peak Hour	Control[1]	Opening Year		Opening Year Plus Project		Control[1]	Opening Year Plus Project with Mitigation	
			Delay[2]	LOS	Delay[2]	LOS		Delay[2]	LOS
6. Main Street & Baechtel Road	AM	TWSC	33	D	38	D	Signal	6.0	A
	PM		**73**	**F**	***126***	***F***		6.3	A

Notes: **Bold** text indicates potentially unacceptable intersection operations. ***Bold italics*** indicated potentially significant impact.

1. TWSC = Two-way stop-controlled intersections; traffic on the main street does not stop while traffic on the side-street is controlled by a stop sign
2. For TWSC intersections, delay is reported for the worst movement.

Source: Fehr & Peers, 2019

6. Access and Circulation

This chapter provides an assessment of parking supply, site access and internal circulation for vehicles, pedestrians, bicycles, and transit based on the conceptual site plan presented previously on Figure 2.

Parking Assessment

The site plan denotes five parking areas throughout the project site totaling 115 parking stalls.

- 22 parking stalls at the admin building
- 23 parking stalls for visitors/staff
- 22 parking stalls for visitors
- 48 parking stalls for corps member parking

There are also two designated loading areas at the warehouse and at the multiuse building.

The project is expected to include 26 staff, 10 visitors, and 5 deliveries on a typical day. 100 corps members will live on site full-time; it is expected that most corps members will not have personal vehicles parked on site. There will be 12 crew vehicles parked on site. The expected daily parking demand is summarized below in **Table 11.**

Table 11: Expected Parking Demand

	Expected Daily Parking Demand
Staff	26
Corps members	20
Crew Vehicles	12
Visitors	10
Deliveries	5
Total	**73**

Source: Fehr & Peers, 2019

The proposed parking supply provides more parking than needed to meet the expected parking demand. Therefore, the proposed parking supply is considered sufficient for the Project.

Vehicular Site Access and Circulation

Vehicular access to the Project is provided on East Hill Road. An internal roadway connects the various parking areas and buildings throughout the Project site.

Pedestrian Access and Circulation

The site plan shows a pedestrian path running between the education and recreation buildings, past the dorm buildings and sports field to the multiuse building. This path can be utilized by corps members, staff, and visitors and provides a designated area for pedestrian access.

> ***Recommendation 1:*** Consider denoting a pedestrian path of travel between the corps member area, multiuse building, and the warehouse and admin building.

Bicycle Access and Circulation

Baechtel Road provides Class II bike facilities. Haehl Creek Drive, Hill Road, and Main Street do not provide bicycle facilities within the study area. The City proposes future Class II facilities on Hill Road and Main Street and Class III facilities on Haehl Creek Drive (*City of Willits Bicycle and Pedestrian Specific Plan*, 2009).

Bicycle parking is not currently identified on the site plan. It is not expected that corps members, staff, or visitors would typically use a bicycle to access the Project site.

Transit Access and Circulation

Three transit routes serve Willits. All three routes have stops through Willits on Main Street. The closest bus stops to the Project site are located on Main Street approximately 300 feet north of the intersection of Main Street and Baechtel Road. It is not expected that corps members, staff, or visitors would typically use transit service to access the Project site.

7. Conclusions

This study was undertaken to analyze the potential traffic impacts of the California Conservation Corps (CCC) operations center in Willits, California. The following summarizes the results of this analysis:

- The Project involves development of a new CCC operations center at 440 East Hill Road in Willits, California to accommodate relocation of the existing CCC Ukiah Center.
- The LOS analyses for both the Existing Plus Project scenario and the Opening Year Plus Project scenarios determined that the Project would significantly impact traffic at Main Street and Baechtel Road.
- CA MUTCD peak hour signal warrant analyses was conducted for the AM and PM peak hour of each analysis scenario for the all unsignalized intersections. The intersection at Main Street and Baechtel Road meets the peak hour signal warrant for the AM or PM peak hour in all analysis scenarios.
- The Project should coordinate with City staff and pay their fair share of the installation of a traffic signal at Main Street and Baechtel Road. This would mitigate the impact to a less than significant impact.

Appendix A:
Methodology and Assumptions Memorandum

FEHR PEERS

MEMORANDUM

Date: September 24, 2019

To: Mark Morse, ECORP Consulting, Inc.

From: Spencer Reed, P.E. and Delia Votsch, P.E.

Subject: Methodologies and Assumptions for the California Conservation Corps Willits Center TIA

OC19-0637

Fehr & Peers has been retained by ECORP Consulting, Inc. to assist with the transportation impact assessment for the California Conservation Corps (CCC) Willits Center Project (Project) in Willits, California. The purpose of this memorandum is to document the methodologies and assumptions which will be used in the Transportation Impact Analysis so there is an opportunity to approve the approach prior to the completion of the traffic study.

The remainder of this memorandum is divided into the following sections: Project Description, Trip Generation, Trip Distribution, Study Area, Data Collection, Analysis Scenarios, Impact Analysis Guidelines, Signal Warrant Analysis, and Operations and Methodology Assumptions.

Project Description

The Project involves development of a new CCC operations center at 440 East Hill in Willits, California to accommodate relocation of the existing CCC Ukiah Center. The proposed 26.7 acres site is located north of East Hill Road bounded by US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west.

The facility will consist of buildings for administration, housing, work areas, education, recreation, kitchen, and dining for a total building area of approximately 64,038 square feet (SF). The building sizes and number of full-time staff for each building are outlined in **Table 1**.

Table 1: Project Site Buildings and Staff

Building	Square Footage (SF)	Full-time Staff
Administration Building	3,363	6
Educational Building	6,268	10
Recreational Building	5,498	
Multi-Purpose Building w/ Kitchen & Dining	14,656	2
Warehouse Building	13,604	8
Six Dormitories	17,436 (2,908 each)	-
Comet (Boot Camp) Building	3,213	-
Hazardous Materials Storage Building	200	-
Total	**64,238**	**26**

Source: Fehr & Peers, 20190

The site would house approximately 100 corps members. Corps members will live and take classes each daily for off-site projects in the region. Crews are expected to arrive or depart the site during the peak hours on weekdays. Corps members are not expected to travel to and from the site during weekdays unless they deploy with a crew.

The site will include 26 full time staff including administration and instructors, and 7-10 public visitors are expected daily. Public visitors, administrative staff, and instructors for the classes are expected to drive alone in a personal vehicle and arrive and depart during the peak hours from the site. Delivery vehicles, including USPS, UPS, FedEx, solid waste pick up, and supply and food deliveries, are expected to access the site during off-peak hours.

Project construction is expected to begin in 2021, with an anticipated operational date in late 2023.

Project Trip Generation

Fehr & Peers developed trip generation rates for the Project. Trip generation was based on the proposed operational characteristics of the site, including the number of corps members, visitors, and staff, hours of operation, and types of events and activities.

Project Trip Generation Estimates

As presented in **Table 2**, the Project is expected to generate approximately 101 daily trips, including approximately 48 trips (36 inbound/12 outbound) during the AM peak hour and approximately 48 trips (12 inbound/36 outbound) in the PM peak hour.

Table 2: Project Trip Generation Estimate

	Quantity (Vehicles)	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Staff								
Administration Building	6	12	6	0	6	0	6	6
Educational/Recreational Building	10	20	10	0	10	0	10	10
Multi-Purpose Building	2	4	2	0	2	0	2	2
Warehouse Building	8	16	8	0	8	0	8	8
Corps members								
Crew Vehicles	12	24	0	12	12	12	0	12
Other								
Visitors	10	20	10	0	10	0	10	10
Deliveries	5	5	0	0	0	0	0	0
Total		**101**	**36**	**12**	**48**	**12**	**36**	**48**

Source: Fehr & Peers, 2019

Study Area

The study intersections were selected in consultation with the Project team. **Figure 1** identifies the four study intersections:

1. Main Street & Canyon Road/Baechtel Road (unsignalized)
2. Baechtel Road & Hill Road (unsignalized)
3. Haehl Creek Drive & Hill Road (unsignalized)
4. Future Project Driveway & Hill Road (unsignalized)

Trip Distribution

The geographic distribution of trips generated by the Project is dependent on characteristics of the street system serving the Project site and the level of accessibility of routes to and from the Project site. The trip distribution will be finalized through conversations with the Project team to ensure that the assumptions are realistic and vetted. The distribution of Project trips is illustrated in **Figure 2**.

Data Collection

Existing morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection counts were conducted at the study intersections on Thursday, May 30, 2019. Roadway segment counts were also collected on the same day on Hill Road between Haehl Creek Drive and Sanhedrin Circle. Counts were conducted on a weekday while schools were in session.

Analysis Scenarios

The following four scenarios will be analyzed:

- Existing Conditions – traffic counts conducted for this study will be analyzed.
- Existing plus Project – the proposed project trip generation, trip distribution, and trip assignment estimates will be added to the existing intersection and roadway segment counts.
- Future Year (2023) No Project – a 1% ambient growth rate per year based on the growth rate of the study area will be applied to the existing counts and trips from pending and approved development projects that will be manually assigned to the network.

- Future Year (2023) plus Project – the proposed project trip estimates will be added to the Future Year No Project forecasts.

Impact Analysis Guidelines

Fehr & Peers will conduct operations analysis at the study intersections during AM and PM peak hours. The Highway Capacity Manual (HCM) 6th Edition methodology will be used to evaluate significant impacts at the four unsignalized study intersections.

Impact criteria will be applied per direction from the City of Willits General Plan. The acceptable Level of Service (LOS) for intersections in the City of Willits is D or better. Any intersection operating at a LOS of E or F is considered deficient. The following factors will be used to assess significant impacts at the unsignalized intersections:

- The intersection is projected to decline to LOS E or F from LOS D or better with the addition of traffic volumes associated with the proposed project; and
- The intersection meets peak hour signal warrants either caused by project volumes, or project volumes are added at an intersection that meets peak hour signal warrants in the baseline scenario(s).

Signal Warrant Analysis

Peak hour signal warrant analysis per the *California Manual on Uniform Traffic Control Devices* (Caltrans, 2014) will be conducted for each analysis scenario at the four unsignalized intersections.

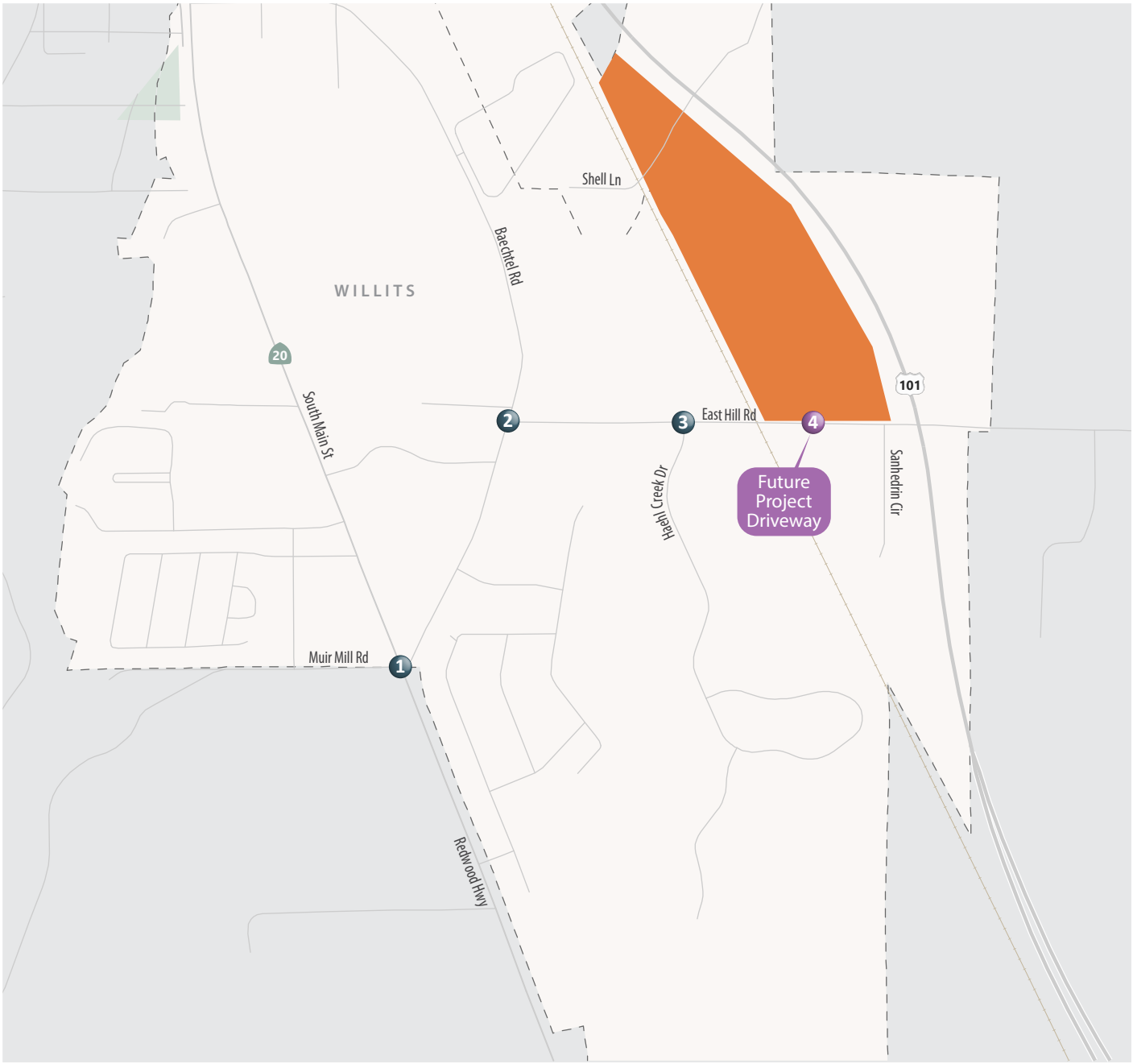
Operations and Methodology Assumptions

The following parameters will be used in our operations analysis:

- Synchro 10 software and HCM 6th Edition methodology will be used to analyze study intersections.
- Worst case side street delay will be reported for two-way stop-controlled intersections under the HCM 6th Edition methodology.
- A peak hour factor (PHF) based on observed conditions will be used for the HCM analysis under Existing Conditions. Under Future Year Conditions a PHF of 0.92 will be used.

Next Steps

Once the proposed assumptions and methodology are approved, Fehr & Peers will begin the traffic operations analysis for the Project to identify potential significant impacts.



Project Site # Study Intersection

Figure 1

Study Area

OC19-0637_1_StudyArea

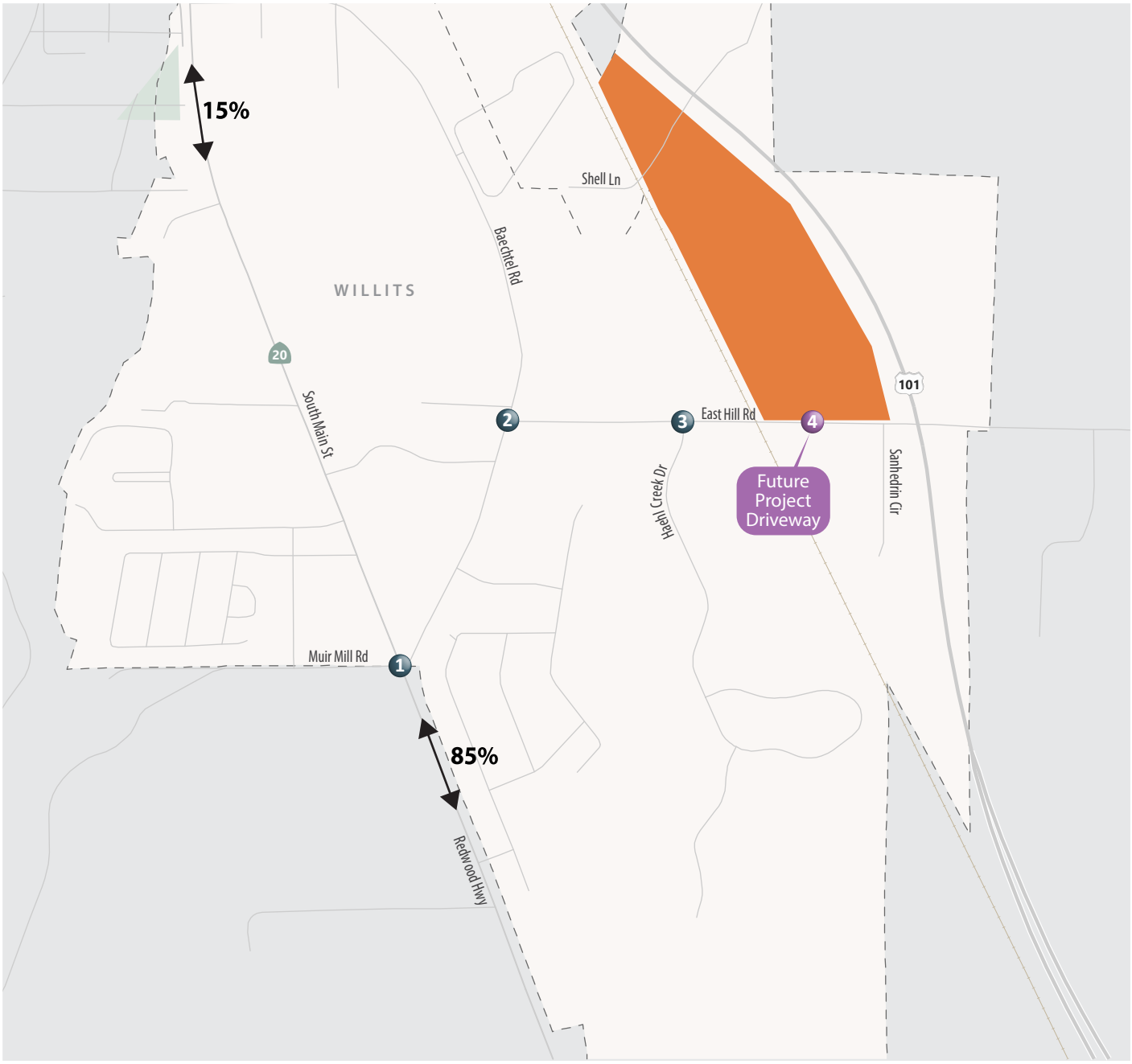


Figure 2

Project Trip Distribution

Appendix B:
Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: Main St & Canyon Rd/Baechtel Rd
City: Willits
Control: 2-Way Stop (EB/WB)

Project ID: 19-08315-003
Date: 5/30/2019

Total

NS/EW Streets:	Main St				Main St				Canyon Rd/Baechtel Rd				Canyon Rd/Baechtel Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	0	0.5	0.5	0	0	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	37	13	0	9	82	0	0	1	1	1	0	18	0	9	0	171
7:15 AM	0	54	16	0	5	86	0	0	0	0	2	0	16	0	8	0	187
7:30 AM	1	66	17	0	11	116	2	0	1	1	1	0	38	1	12	0	267
7:45 AM	0	108	24	0	4	79	3	0	2	1	3	0	17	3	18	0	262
8:00 AM	0	82	17	0	12	100	5	0	2	0	2	0	19	0	16	0	255
8:15 AM	2	59	13	0	14	98	4	0	1	0	2	0	13	1	15	0	222
8:30 AM	1	68	11	0	7	94	4	0	1	2	3	0	13	0	18	0	222
8:45 AM	4	93	18	0	10	75	3	0	3	0	3	0	13	0	11	0	233
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	567	129	0	72	730	21	0	11	5	17	0	147	5	107	0	1819
APPROACH %'s :	1.14%	80.54%	18.32%	0.00%	8.75%	88.70%	2.55%	0.00%	33.33%	15.15%	51.52%	0.00%	56.76%	1.93%	41.31%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	3	315	71	0	41	393	14	0	6	2	8	0	87	5	61	0	1006
PEAK HR FACTOR :	0.375	0.729	0.740	0.000	0.732	0.847	0.700	0.000	0.750	0.500	0.667	0.000	0.572	0.417	0.847	0.000	0.942
	0.737				0.868				0.667				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	0	0.5	0.5	0	0	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	133	21	0	23	110	4	0	2	3	1	0	22	1	11	0	332
4:15 PM	4	108	16	0	14	113	0	0	2	0	1	0	23	1	18	0	300
4:30 PM	1	113	20	0	11	91	2	0	1	0	1	0	21	0	24	0	285
4:45 PM	3	119	19	0	19	89	0	0	2	2	0	0	15	0	18	0	286
5:00 PM	0	103	26	0	17	120	2	0	1	1	0	0	12	0	21	0	303
5:15 PM	2	142	33	0	21	94	3	0	1	0	0	0	24	0	17	0	337
5:30 PM	3	127	24	0	24	79	0	0	0	3	1	0	21	1	12	0	295
5:45 PM	1	119	35	0	18	71	0	0	2	0	2	0	16	1	21	0	286
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	15	964	194	0	147	767	11	0	11	9	6	0	154	4	142	0	2424
APPROACH %'s :	1.28%	82.18%	16.54%	0.00%	15.89%	82.92%	1.19%	0.00%	42.31%	34.62%	23.08%	0.00%	51.33%	1.33%	47.33%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	8	491	102	0	81	382	5	0	4	6	1	0	72	1	68	0	1221
PEAK HR FACTOR :	0.667	0.864	0.773	0.000	0.844	0.796	0.417	0.000	0.500	0.500	0.250	0.000	0.750	0.250	0.810	0.000	0.906
	0.849				0.842				0.688				0.860				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Haehl Creek Dr & Hill Rd
City: Willits
Control: 1-Way Stop (NB)

Project ID: 19-08315-002
Date: 5/30/2019

Total

NS/EW Streets:	Haehl Creek Dr				Haehl Creek Dr				Hill Rd				Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0.5	0.5	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	0	1	0	0	0	0	0	0	17	8	0	2	21	0	0	61
7:15 AM	7	0	1	0	0	0	0	0	0	21	11	0	2	18	0	0	60
7:30 AM	22	0	3	0	0	0	0	0	0	19	21	0	3	48	0	1	117
7:45 AM	20	0	0	0	0	0	0	0	0	31	29	0	2	45	0	0	127
8:00 AM	7	0	1	0	0	0	0	0	0	21	30	0	1	29	0	0	89
8:15 AM	10	0	1	0	0	0	0	0	0	39	15	0	1	29	0	0	95
8:30 AM	12	0	1	0	0	0	0	0	0	31	16	0	2	33	0	0	95
8:45 AM	9	0	0	0	0	0	0	0	0	28	14	0	4	27	0	0	82
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	99	0	8	0	0	0	0	0	0	207	144	0	17	250	0	1	726
APPROACH %'s :	92.52%	0.00%	7.48%	0.00%					0.00%	58.97%	41.03%	0.00%	6.34%	93.28%	0.00%	0.37%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	59	0	5	0	0	0	0	0	0	110	95	0	7	151	0	1	428
PEAK HR FACTOR :	0.670	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.705	0.792	0.000	0.583	0.786	0.000	0.250	0.843
	0.640								0.854				0.764				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0.5	0.5	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	13	1	2	0	0	1	0	0	0	41	18	0	2	28	0	0	106
4:15 PM	24	0	2	0	0	0	0	0	0	23	13	0	2	39	0	0	103
4:30 PM	29	0	1	0	1	0	0	0	0	33	11	0	2	37	1	1	116
4:45 PM	23	0	7	0	0	0	0	0	0	32	17	0	3	41	0	0	123
5:00 PM	22	0	4	0	0	0	0	0	0	45	13	0	1	43	0	0	128
5:15 PM	17	0	2	0	0	0	0	0	0	47	20	0	3	34	0	0	123
5:30 PM	16	0	1	0	0	0	0	0	0	42	8	0	3	32	0	0	102
5:45 PM	20	1	0	0	0	1	0	0	0	39	9	0	2	30	0	0	102
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	164	2	19	0	1	2	0	0	0	302	109	0	18	284	1	1	903
APPROACH %'s :	88.65%	1.08%	10.27%	0.00%	33.33%	66.67%	0.00%	0.00%	0.00%	73.48%	26.52%	0.00%	5.92%	93.42%	0.33%	0.33%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	91	0	14	0	1	0	0	0	0	157	61	0	9	155	1	1	490
PEAK HR FACTOR :	0.784	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.835	0.763	0.000	0.750	0.901	0.250	0.250	0.957
	0.875				0.250				0.813				0.943				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Baechtel Rd & Hill Rd
City: Willits
Control: 1-Way Stop (WB)

Project ID: 19-08315-001
Date: 5/30/2019

Total

NS/EW Streets:	Baechtel Rd				Baechtel Rd				Hill Rd				Hill Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	3	17	0	10	6	0	0	0	0	0	0	19	0	12	0	67
7:15 AM	0	6	17	0	11	11	0	0	0	0	0	0	16	0	8	0	69
7:30 AM	0	9	23	0	19	3	0	0	0	0	0	0	42	0	24	0	120
7:45 AM	0	10	24	0	34	4	0	0	0	0	0	0	31	0	30	0	133
8:00 AM	0	12	29	0	33	10	0	0	0	0	0	0	26	0	20	0	130
8:15 AM	0	9	21	0	31	10	0	0	0	0	0	0	21	0	13	0	105
8:30 AM	0	6	19	0	32	8	0	0	0	0	0	0	30	0	19	0	114
8:45 AM	0	4	18	0	19	3	0	0	0	0	0	0	17	0	17	0	78
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	59	168	0	189	55	0	0	0	0	0	0	202	0	143	0	816
APPROACH %'s :	0.00%	25.99%	74.01%	0.00%	77.46%	22.54%	0.00%	0.00%					58.55%	0.00%	41.45%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	40	97	0	117	27	0	0	0	0	0	0	120	0	87	0	488
PEAK HR FACTOR :	0.000	0.833	0.836	0.000	0.860	0.675	0.000	0.000	0.000	0.000	0.000	0.000	0.714	0.000	0.725	0.000	0.917
	0.835				0.837								0.784				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	0.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	5	35	0	14	8	0	0	0	0	0	0	30	0	23	0	115
4:15 PM	0	12	25	0	19	9	0	0	0	0	0	0	26	0	18	0	109
4:30 PM	0	11	19	0	15	14	0	0	0	0	0	0	29	0	33	0	121
4:45 PM	0	10	35	0	18	1	0	0	0	0	0	0	34	0	28	0	126
5:00 PM	0	9	27	0	29	7	0	0	0	0	0	0	32	0	26	0	130
5:15 PM	0	12	33	0	24	6	0	0	0	0	0	0	29	0	26	0	130
5:30 PM	0	16	27	0	26	3	0	0	0	0	0	0	32	0	24	0	128
5:45 PM	0	10	36	0	11	10	0	0	0	0	0	0	23	0	20	0	110
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	85	237	0	156	58	0	0	0	0	0	0	235	0	198	0	969
APPROACH %'s :	0.00%	26.40%	73.60%	0.00%	72.90%	27.10%	0.00%	0.00%					54.27%	0.00%	45.73%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	47	122	0	97	17	0	0	0	0	0	0	127	0	104	0	514
PEAK HR FACTOR :	0.000	0.734	0.871	0.000	0.836	0.607	0.000	0.000	0.000	0.000	0.000	0.000	0.934	0.000	0.929	0.000	0.988
	0.939				0.792								0.931				

Prepared by National Data & Surveying Services

VOLUME

Hill Rd Bet. Railroad Tracks & Sanhedrin Cir

Day: Thursday
Date: 5/30/2019

City: Willits
Project #: CA19_8316_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,617	1,650	3,267

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			4		0		4		12:00			27		43		70	
00:15			1		0		1		12:15			38		21		59	
00:30			2		3		5		12:30			27		27		54	
00:45			3	10	1	4	4	14	12:45			30	122	30	121	60	243
01:00			4		0		4		13:00			24		39		63	
01:15			2		1		3		13:15			23		23		46	
01:30			0		1		1		13:30			27		36		63	
01:45			1	7	0	2	1	9	13:45			29	103	20	118	49	221
02:00			1		1		2		14:00			25		26		51	
02:15			2		0		2		14:15			21		31		52	
02:30			0		0		0		14:30			21		33		54	
02:45			1	4	2	3	3	7	14:45			19	86	36	126	55	212
03:00			0		1		1		15:00			33		20		53	
03:15			0		3		3		15:15			27		22		49	
03:30			0		0		0		15:30			29		40		69	
03:45			1	1	0	4	1	5	15:45			37	126	27	109	64	235
04:00			0		2		2		16:00			42		28		70	
04:15			1		1		2		16:15			26		37		63	
04:30			0		3		3		16:30			35		31		66	
04:45			0	1	2	8	2	9	16:45			37	140	35	131	72	271
05:00			2		6		8		17:00			46		37		83	
05:15			0		5		5		17:15			49		32		81	
05:30			2		14		16		17:30			43		32		75	
05:45			3	7	11	36	14	43	17:45			37	175	28	129	65	304
06:00			2		10		12		18:00			35		24		59	
06:15			1		13		14		18:15			24		27		51	
06:30			14		14		28		18:30			28		14		42	
06:45			22	39	13	50	35	89	18:45			31	118	20	85	51	203
07:00			15		22		37		19:00			19		15		34	
07:15			18		20		38		19:15			23		19		42	
07:30			20		51		71		19:30			27		23		50	
07:45			24	77	48	141	72	218	19:45			18	87	11	68	29	155
08:00			19		31		50		20:00			14		11		25	
08:15			31		29		60		20:15			19		14		33	
08:30			23		37		60		20:30			19		11		30	
08:45			22	95	30	127	52	222	20:45			26	78	18	54	44	132
09:00			25		21		46		21:00			14		7		21	
09:15			19		26		45		21:15			14		7		21	
09:30			24		17		41		21:30			8		8		16	
09:45			16	84	21	85	37	169	21:45			7	43	1	23	8	66
10:00			22		19		41		22:00			4		7		11	
10:15			22		23		45		22:15			8		6		14	
10:30			16		22		38		22:30			4		5		9	
10:45			23	83	17	81	40	164	22:45			3	19	7	25	10	44
11:00			19		29		48		23:00			2		4		6	
11:15			27		27		54		23:15			4		1		5	
11:30			26		32		58		23:30			4		0		4	
11:45			23	95	24	112	47	207	23:45			7	17	3	8	10	25
TOTALS				503		653		**1156**	**TOTALS**				1114		997		**2111**
SPLIT %				43.5%		56.5%		**35.4%**	**SPLIT %**				52.8%		47.2%		**64.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,617	1,650	3,267

AM Peak Hour			11:45	07:30	**07:30**	**PM Peak Hour**			16:45	16:15	**16:45**
AM Pk Volume			115	159	**253**	**PM Pk Volume**			175	140	**311**
Pk Hr Factor			0.757	0.779	**0.878**	**Pk Hr Factor**			0.893	0.946	**0.937**
7 - 9 Volume	0	0	172	268	**440**	**4 - 6 Volume**	0	0	315	260	**575**
7 - 9 Peak Hour			07:45	07:30	**07:30**	**4 - 6 Peak Hour**			16:45	16:15	**16:45**
7 - 9 Pk Volume	0	0	97	159	**253**	**4 - 6 Pk Volume**	0	0	175	140	**311**
Pk Hr Factor	0.000	0.000	0.782	0.779	**0.878**	**Pk Hr Factor**	0.000	0.000	0.893	0.946	**0.937**

Appendix C:
LOS Calculation Worksheets

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	8	87	5	61	3	315	71	41	393	14
Future Vol, veh/h	6	2	8	87	5	61	3	315	71	41	393	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	2	9	93	5	65	3	335	76	44	418	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	928	931	426	898	900	373	433	0	0	411	0	0
Stage 1	514	514	-	379	379	-	-	-	-	-	-	-
Stage 2	414	417	-	519	521	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	248	267	628	260	278	673	1127	-	-	1148	-	-
Stage 1	543	535	-	643	615	-	-	-	-	-	-	-
Stage 2	616	591	-	540	532	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	256	628	247	267	673	1127	-	-	1148	-	-
Mov Cap-2 Maneuver	214	256	-	247	267	-	-	-	-	-	-	-
Stage 1	541	515	-	641	613	-	-	-	-	-	-	-
Stage 2	550	589	-	510	512	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	21.6	0.1	0.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1127	-	-	329	248	673	1148	-	-
HCM Lane V/C Ratio	0.003	-	-	0.052	0.395	0.096	0.038	-	-
HCM Control Delay (s)	8.2	-	-	16.5	28.7	10.9	8.3	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	1.8	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	120	87	40	97	117	27
Future Vol, veh/h	120	87	40	97	117	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	95	43	105	127	29

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	379	96	0	0	148	0
Stage 1	96	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	623	960	-	-	1434	-
Stage 1	928	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	567	960	-	-	1434	-
Mov Cap-2 Maneuver	567	-	-	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	6.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	685	1434	-
HCM Lane V/C Ratio	-	-	0.328	0.089	-
HCM Control Delay (s)	-	-	12.8	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	0	110	95	8	151	0	59	0	5	0	0	0
Future Vol, veh/h	0	110	95	8	151	0	59	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	131	113	10	180	0	70	0	6	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	180	0	0	244	0	0	388	388	188	391	444	180
Stage 1	-	-	-	-	-	-	188	188	-	200	200	-
Stage 2	-	-	-	-	-	-	200	200	-	191	244	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1396	-	-	1322	-	-	571	547	854	568	508	863
Stage 1	-	-	-	-	-	-	814	745	-	802	736	-
Stage 2	-	-	-	-	-	-	802	736	-	811	704	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1396	-	-	1322	-	-	568	543	854	561	504	863
Mov Cap-2 Maneuver	-	-	-	-	-	-	568	543	-	561	504	-
Stage 1	-	-	-	-	-	-	814	745	-	802	730	-
Stage 2	-	-	-	-	-	-	796	730	-	805	704	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	12	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	568	854	1396	-	-	1322	-	-	-
HCM Lane V/C Ratio	0.124	0.007	-	-	-	0.007	-	-	-
HCM Control Delay (s)	12.2	9.2	0	-	-	7.7	0	-	0
HCM Lane LOS	B	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	6	1	72	1	68	8	491	102	81	382	5
Future Vol, veh/h	4	6	1	72	1	68	8	491	102	81	382	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	1	79	1	75	9	540	112	89	420	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1253	1271	423	1219	1217	596	425	0	0	652	0	0
Stage 1	601	601	-	614	614	-	-	-	-	-	-	-
Stage 2	652	670	-	605	603	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	149	168	631	157	181	504	1134	-	-	935	-	-
Stage 1	487	489	-	479	483	-	-	-	-	-	-	-
Stage 2	457	455	-	485	488	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	151	631	140	163	504	1134	-	-	935	-	-
Mov Cap-2 Maneuver	116	151	-	140	163	-	-	-	-	-	-	-
Stage 1	483	443	-	475	479	-	-	-	-	-	-	-
Stage 2	385	451	-	432	442	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.1	37.8	0.1	1.6
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1134	-	-	145	140	504	935	-	-
HCM Lane V/C Ratio	0.008	-	-	0.083	0.573	0.148	0.095	-	-
HCM Control Delay (s)	8.2	-	-	32.1	60.6	13.4	9.3	-	-
HCM Lane LOS	A	-	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.9	0.5	0.3	-	-

Intersection	
Int Delay, s/veh	6.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	127	104	47	122	97	17
Future Vol, veh/h	127	104	47	122	97	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	128	105	47	123	98	17

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	322	109	0	0	170	0
Stage 1	109	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	672	945	-	-	1407	-
Stage 1	916	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	625	945	-	-	1407	-
Mov Cap-2 Maneuver	625	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	6.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	737	1407	-
HCM Lane V/C Ratio	-	-	0.317	0.07	-
HCM Control Delay (s)	-	-	12.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.2	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	157	61	10	155	1	91	0	14	1	0	0
Future Vol, veh/h	0	157	61	10	155	1	91	0	14	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	164	64	10	161	1	95	0	15	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	228	0	0	378	378	196	386	410	162
Stage 1	-	-	-	-	-	-	196	196	-	182	182	-
Stage 2	-	-	-	-	-	-	182	182	-	204	228	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1417	-	-	1340	-	-	580	554	845	573	531	883
Stage 1	-	-	-	-	-	-	806	739	-	820	749	-
Stage 2	-	-	-	-	-	-	820	749	-	798	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1417	-	-	1340	-	-	577	550	845	560	527	883
Mov Cap-2 Maneuver	-	-	-	-	-	-	577	550	-	560	527	-
Stage 1	-	-	-	-	-	-	806	739	-	820	743	-
Stage 2	-	-	-	-	-	-	813	743	-	784	715	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	12.1	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	577	845	1417	-	-	1340	-	-	560
HCM Lane V/C Ratio	0.164	0.017	-	-	-	0.008	-	-	0.002
HCM Control Delay (s)	12.5	9.3	0	-	-	7.7	0	-	11.4
HCM Lane LOS	B	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	8	97	5	63	3	315	102	46	393	14
Future Vol, veh/h	6	2	8	97	5	63	3	315	102	46	393	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	2	9	103	5	67	3	335	109	49	418	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	956	974	426	925	927	390	433	0	0	444	0	0
Stage 1	524	524	-	396	396	-	-	-	-	-	-	-
Stage 2	432	450	-	529	531	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	238	252	628	250	268	658	1127	-	-	1116	-	-
Stage 1	537	530	-	629	604	-	-	-	-	-	-	-
Stage 2	602	572	-	533	526	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	240	628	236	255	658	1127	-	-	1116	-	-
Mov Cap-2 Maneuver	203	240	-	236	255	-	-	-	-	-	-	-
Stage 1	535	507	-	627	602	-	-	-	-	-	-	-
Stage 2	534	570	-	501	503	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17	24.3	0.1	0.9
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1127	-	-	316	237	658	1116	-	-
HCM Lane V/C Ratio	0.003	-	-	0.054	0.458	0.102	0.044	-	-
HCM Control Delay (s)	8.2	-	-	17	32.4	11.1	8.4	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	2.2	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	132	87	40	133	117	27
Future Vol, veh/h	132	87	40	133	117	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	143	95	43	145	127	29

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	399	116	0	0	188	0
Stage 1	116	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	607	936	-	-	1386	-
Stage 1	909	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	551	936	-	-	1386	-
Mov Cap-2 Maneuver	551	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	659	1386	-
HCM Lane V/C Ratio	-	-	0.361	0.092	-
HCM Control Delay (s)	-	-	13.5	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0.3	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	146	95	8	163	0	59	0	5	0	0	0
Future Vol, veh/h	0	146	95	8	163	0	59	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	174	113	10	194	0	70	0	6	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	287	0	0	445	445	231	448	501	194
Stage 1	-	-	-	-	-	-	231	231	-	214	214	-
Stage 2	-	-	-	-	-	-	214	214	-	234	287	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1379	-	-	1275	-	-	523	508	808	521	472	847
Stage 1	-	-	-	-	-	-	772	713	-	788	725	-
Stage 2	-	-	-	-	-	-	788	725	-	769	674	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1379	-	-	1275	-	-	519	503	808	514	468	847
Mov Cap-2 Maneuver	-	-	-	-	-	-	519	503	-	514	468	-
Stage 1	-	-	-	-	-	-	772	713	-	788	718	-
Stage 2	-	-	-	-	-	-	781	718	-	763	674	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	12.7	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	519	808	1379	-	-	1275	-	-	-
HCM Lane V/C Ratio	0.135	0.007	-	-	-	0.007	-	-	-
HCM Control Delay (s)	13	9.5	0	-	-	7.8	0	-	0
HCM Lane LOS	B	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	0	-	-	0	-	-	-

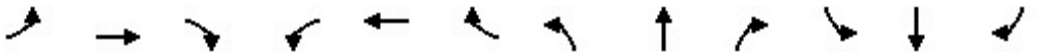
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	115	159	0	0	12
Future Vol, veh/h	36	115	159	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	131	181	0	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	181	0	-	0	394	181
Stage 1	-	-	-	-	181	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1394	-	-	0	611	862
Stage 1	-	-	-	0	850	-
Stage 2	-	-	-	0	823	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1394	-	-	-	591	862
Mov Cap-2 Maneuver	-	-	-	-	591	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1
Capacity (veh/h)	1394	-	-	862
HCM Lane V/C Ratio	0.029	-	-	0.016
HCM Control Delay (s)	7.7	0	-	9.2
HCM Lane LOS	A	A	-	A
HCM 95th %tile Q(veh)	0.1	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	2	8	97	5	63	3	315	102	46	393	14
Future Volume (veh/h)	6	2	8	97	5	63	3	315	102	46	393	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	2	9	103	5	67	3	335	109	49	418	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	283	58	128	562	11	252	571	570	186	554	757	27
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	351	368	809	1473	72	1585	955	1351	440	946	1794	64
Grp Volume(v), veh/h	17	0	0	108	0	67	3	0	444	49	0	433
Grp Sat Flow(s),veh/h/ln	1529	0	0	1545	0	1585	955	0	1791	946	0	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.0	4.1	0.9	0.0	3.8
Cycle Q Clear(g_c), s	1.2	0.0	0.0	1.2	0.0	0.8	3.8	0.0	4.1	5.0	0.0	3.8
Prop In Lane	0.35		0.53	0.95		1.00	1.00		0.25	1.00		0.03
Lane Grp Cap(c), veh/h	470	0	0	573	0	252	571	0	756	554	0	784
V/C Ratio(X)	0.04	0.00	0.00	0.19	0.00	0.27	0.01	0.00	0.59	0.09	0.00	0.55
Avail Cap(c_a), veh/h	1495	0	0	1538	0	1329	969	0	1502	948	0	1558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.7	0.0	0.0	8.1	0.0	7.9	6.1	0.0	4.8	6.7	0.0	4.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.6	0.0	0.0	0.7	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.0	0.0	8.2	0.0	8.5	6.1	0.0	5.5	6.8	0.0	5.3
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		17			175			447			482	
Approach Delay, s/veh		7.7			8.3			5.5			5.4	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.6		7.9		13.6		7.9				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.1		3.2		7.0		3.2				
Green Ext Time (p_c), s		2.1		0.0		2.1		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			5.9									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	9.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	6	1	103	1	72	8	491	112	83	382	5
Future Vol, veh/h	4	6	1	103	1	72	8	491	112	83	382	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	7	1	113	1	79	9	540	123	91	420	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1265	1286	423	1229	1227	602	425	0	0	663	0	0
Stage 1	605	605	-	620	620	-	-	-	-	-	-	-
Stage 2	660	681	-	609	607	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	146	164	631	155	178	500	1134	-	-	926	-	-
Stage 1	485	487	-	476	480	-	-	-	-	-	-	-
Stage 2	452	450	-	482	486	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	112	147	631	137	159	500	1134	-	-	926	-	-
Mov Cap-2 Maneuver	112	147	-	137	159	-	-	-	-	-	-	-
Stage 1	481	439	-	472	476	-	-	-	-	-	-	-
Stage 2	377	446	-	427	438	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.9	64.7	0.1	1.6
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1134	-	-	141	137	500	926	-	-
HCM Lane V/C Ratio	0.008	-	-	0.086	0.834	0.158	0.098	-	-
HCM Control Delay (s)	8.2	-	-	32.9	100.1	13.5	9.3	-	-
HCM Lane LOS	A	-	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	5.3	0.6	0.3	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	162	105	47	134	97	17
Future Vol, veh/h	162	105	47	134	97	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	164	106	47	135	98	17

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	328	115	0	0	182	0
Stage 1	115	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	666	937	-	-	1393	-
Stage 1	910	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	619	937	-	-	1393	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	6.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	714	1393	-
HCM Lane V/C Ratio	-	-	0.378	0.07	-
HCM Control Delay (s)	-	-	13.1	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.8	0.2	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	169	61	10	191	1	91	0	14	1	0	0
Future Vol, veh/h	0	169	61	10	191	1	91	0	14	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	176	64	10	199	1	95	0	15	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	200	0	0	240	0	0	428	428	208	436	460	200
Stage 1	-	-	-	-	-	-	208	208	-	220	220	-
Stage 2	-	-	-	-	-	-	220	220	-	216	240	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1372	-	-	1327	-	-	537	519	832	531	498	841
Stage 1	-	-	-	-	-	-	794	730	-	782	721	-
Stage 2	-	-	-	-	-	-	782	721	-	786	707	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1372	-	-	1327	-	-	534	515	832	518	494	841
Mov Cap-2 Maneuver	-	-	-	-	-	-	534	515	-	518	494	-
Stage 1	-	-	-	-	-	-	794	730	-	782	715	-
Stage 2	-	-	-	-	-	-	776	715	-	772	707	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	12.7	12
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	534	832	1372	-	-	1327	-	-	518
HCM Lane V/C Ratio	0.178	0.018	-	-	-	0.008	-	-	0.002
HCM Control Delay (s)	13.2	9.4	0	-	-	7.7	0	-	12
HCM Lane LOS	B	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	0	-	-	0	-	-	0

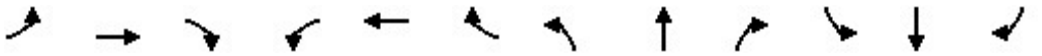
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	175	140	0	0	36
Future Vol, veh/h	12	175	140	0	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	186	149	0	0	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	149	0	-	0	361	149
Stage 1	-	-	-	-	149	-
Stage 2	-	-	-	-	212	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1432	-	-	-	638	898
Stage 1	-	-	-	-	879	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1432	-	-	-	632	898
Mov Cap-2 Maneuver	-	-	-	-	632	-
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1432	-	-	-	898
HCM Lane V/C Ratio	0.009	-	-	-	0.043
HCM Control Delay (s)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	6	1	103	1	72	8	491	112	83	382	5
Future Volume (veh/h)	4	6	1	103	1	72	8	491	112	83	382	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	4	7	1	113	1	79	9	540	123	91	420	5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	176	20	473	2	224	644	796	181	467	996	12
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	316	1241	142	1551	14	1585	962	1474	336	772	1844	22
Grp Volume(v), veh/h	12	0	0	114	0	79	9	0	663	91	0	425
Grp Sat Flow(s),veh/h/ln	1699	0	0	1565	0	1585	962	0	1810	772	0	1866
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.3	0.2	0.0	7.5	2.7	0.0	3.8
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.7	0.0	1.3	4.0	0.0	7.5	10.3	0.0	3.8
Prop In Lane	0.33		0.08	0.99		1.00	1.00		0.19	1.00		0.01
Lane Grp Cap(c), veh/h	410	0	0	475	0	224	644	0	978	467	0	1008
V/C Ratio(X)	0.03	0.00	0.00	0.24	0.00	0.35	0.01	0.00	0.68	0.20	0.00	0.42
Avail Cap(c_a), veh/h	1229	0	0	1188	0	1026	1237	0	2093	942	0	2158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	11.1	0.0	11.0	5.1	0.0	4.7	8.4	0.0	3.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.9	0.0	0.0	0.8	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.5	0.0	0.4	0.0	0.0	0.5	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	0.0	0.0	11.4	0.0	11.9	5.1	0.0	5.5	8.6	0.0	4.2
LnGrp LOS	B	A	A	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		12			193			672			516	
Approach Delay, s/veh		10.5			11.6			5.5			4.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.8		8.5		19.8		8.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+I1), s		9.5		3.7		12.3		3.7				
Green Ext Time (p_c), s		4.5		0.0		3.0		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			6.2									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	3	9	91	6	64	4	328	74	43	409	15
Future Vol, veh/h	7	3	9	91	6	64	4	328	74	43	409	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	3	10	97	6	68	4	349	79	46	435	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	969	971	443	939	940	389	451	0	0	428	0	0
Stage 1	535	535	-	397	397	-	-	-	-	-	-	-
Stage 2	434	436	-	542	543	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	233	253	615	244	264	659	1109	-	-	1131	-	-
Stage 1	529	524	-	629	603	-	-	-	-	-	-	-
Stage 2	600	580	-	525	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	198	242	615	230	252	659	1109	-	-	1131	-	-
Mov Cap-2 Maneuver	198	242	-	230	252	-	-	-	-	-	-	-
Stage 1	527	503	-	626	601	-	-	-	-	-	-	-
Stage 2	530	578	-	493	499	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.6	24.1	0.1	0.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	305	231	659	1131	-	-
HCM Lane V/C Ratio	0.004	-	-	0.066	0.447	0.103	0.04	-	-
HCM Control Delay (s)	8.3	-	-	17.6	32.6	11.1	8.3	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	2.1	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	125	91	42	101	122	29
Future Vol, veh/h	125	91	42	101	122	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	136	99	46	110	133	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	399	101	0	0	156	0
Stage 1	101	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	607	954	-	-	1424	-
Stage 1	923	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	549	954	-	-	1424	-
Mov Cap-2 Maneuver	549	-	-	-	-	-
Stage 1	923	-	-	-	-	-
Stage 2	681	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	6.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	669	1424	-
HCM Lane V/C Ratio	-	-	0.351	0.093	-
HCM Control Delay (s)	-	-	13.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0.3	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↗		↕	
Traffic Vol, veh/h	0	115	99	9	158	0	62	0	6	0	0	0
Future Vol, veh/h	0	115	99	9	158	0	62	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	125	108	10	172	0	67	0	7	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	172	0	0	233	0	0	371	371	179	375	425	172
Stage 1	-	-	-	-	-	-	179	179	-	192	192	-
Stage 2	-	-	-	-	-	-	192	192	-	183	233	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1405	-	-	1335	-	-	586	559	864	582	521	872
Stage 1	-	-	-	-	-	-	823	751	-	810	742	-
Stage 2	-	-	-	-	-	-	810	742	-	819	712	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1405	-	-	1335	-	-	582	555	864	574	517	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	555	-	574	517	-
Stage 1	-	-	-	-	-	-	823	751	-	810	736	-
Stage 2	-	-	-	-	-	-	804	736	-	813	712	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	11.8	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	582	864	1405	-	-	1335	-	-	-
HCM Lane V/C Ratio	0.116	0.008	-	-	-	0.007	-	-	-
HCM Control Delay (s)	12	9.2	0	-	-	7.7	0	-	0
HCM Lane LOS	B	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	7	2	75	2	71	9	511	107	85	398	6
Future Vol, veh/h	5	7	2	75	2	71	9	511	107	85	398	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	8	2	82	2	77	10	555	116	92	433	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1294	1312	437	1259	1257	613	440	0	0	671	0	0
Stage 1	621	621	-	633	633	-	-	-	-	-	-	-
Stage 2	673	691	-	626	624	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	139	159	620	147	171	492	1120	-	-	919	-	-
Stage 1	475	479	-	468	473	-	-	-	-	-	-	-
Stage 2	445	446	-	472	478	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	106	142	620	129	153	492	1120	-	-	919	-	-
Mov Cap-2 Maneuver	106	142	-	129	153	-	-	-	-	-	-	-
Stage 1	471	431	-	464	469	-	-	-	-	-	-	-
Stage 2	370	442	-	416	430	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	33.8	44.4	0.1	1.6
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1120	-	-	140	130	492	919	-	-
HCM Lane V/C Ratio	0.009	-	-	0.109	0.644	0.157	0.101	-	-
HCM Control Delay (s)	8.2	-	-	33.8	72.7	13.7	9.4	-	-
HCM Lane LOS	A	-	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	3.4	0.6	0.3	-	-

Intersection	
Int Delay, s/veh	7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	133	109	49	127	101	18
Future Vol, veh/h	133	109	49	127	101	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	110	49	128	102	18

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	335	113	0	0	177	0
Stage 1	113	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	660	940	-	-	1399	-
Stage 1	912	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	611	940	-	-	1399	-
Mov Cap-2 Maneuver	611	-	-	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.5	0	6.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	725	1399	-
HCM Lane V/C Ratio	-	-	0.337	0.073	-
HCM Control Delay (s)	-	-	12.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.2	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	164	64	11	162	2	95	0	15	2	0	0
Future Vol, veh/h	0	164	64	11	162	2	95	0	15	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	171	67	11	169	2	99	0	16	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	171	0	0	238	0	0	397	398	205	405	430	170
Stage 1	-	-	-	-	-	-	205	205	-	192	192	-
Stage 2	-	-	-	-	-	-	192	193	-	213	238	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1406	-	-	1329	-	-	563	540	836	556	518	874
Stage 1	-	-	-	-	-	-	797	732	-	810	742	-
Stage 2	-	-	-	-	-	-	810	741	-	789	708	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1329	-	-	559	535	836	542	513	874
Mov Cap-2 Maneuver	-	-	-	-	-	-	559	535	-	542	513	-
Stage 1	-	-	-	-	-	-	797	732	-	810	735	-
Stage 2	-	-	-	-	-	-	803	734	-	774	708	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	12.3	11.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	559	836	1406	-	-	1329	-	-	542
HCM Lane V/C Ratio	0.177	0.019	-	-	-	0.009	-	-	0.004
HCM Control Delay (s)	12.8	9.4	0	-	-	7.7	0	-	11.7
HCM Lane LOS	B	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	3	9	101	6	66	4	328	105	48	409	15
Future Vol, veh/h	7	3	9	101	6	66	4	328	105	48	409	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	3	10	107	6	70	4	349	112	51	435	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	996	1014	443	965	966	405	451	0	0	461	0	0
Stage 1	545	545	-	413	413	-	-	-	-	-	-	-
Stage 2	451	469	-	552	553	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	223	239	615	234	255	646	1109	-	-	1100	-	-
Stage 1	523	519	-	616	594	-	-	-	-	-	-	-
Stage 2	588	561	-	518	514	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	187	227	615	219	242	646	1109	-	-	1100	-	-
Mov Cap-2 Maneuver	187	227	-	219	242	-	-	-	-	-	-	-
Stage 1	521	495	-	614	592	-	-	-	-	-	-	-
Stage 2	517	559	-	483	490	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.3	27.6	0.1	0.9
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	291	220	646	1100	-	-
HCM Lane V/C Ratio	0.004	-	-	0.069	0.517	0.109	0.046	-	-
HCM Control Delay (s)	8.3	-	-	18.3	37.7	11.3	8.4	-	-
HCM Lane LOS	A	-	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	2.7	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	137	91	42	137	122	29
Future Vol, veh/h	137	91	42	137	122	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	149	99	46	149	133	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	419	121	0	0	195	0
Stage 1	121	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	591	930	-	-	1378	-
Stage 1	904	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	533	930	-	-	1378	-
Mov Cap-2 Maneuver	533	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	679	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	6.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	642	1378	-
HCM Lane V/C Ratio	-	-	0.386	0.096	-
HCM Control Delay (s)	-	-	14.1	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.8	0.3	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	151	99	9	170	0	62	0	6	0	0	0
Future Vol, veh/h	0	151	99	9	170	0	62	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	164	108	10	185	0	67	0	7	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	185	0	0	272	0	0	423	423	218	427	477	185
Stage 1	-	-	-	-	-	-	218	218	-	205	205	-
Stage 2	-	-	-	-	-	-	205	205	-	222	272	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1390	-	-	1291	-	-	541	522	822	538	487	857
Stage 1	-	-	-	-	-	-	784	723	-	797	732	-
Stage 2	-	-	-	-	-	-	797	732	-	780	685	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1390	-	-	1291	-	-	537	517	822	530	483	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	537	517	-	530	483	-
Stage 1	-	-	-	-	-	-	784	723	-	797	725	-
Stage 2	-	-	-	-	-	-	790	725	-	774	685	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	12.4	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	822	1390	-	-	1291	-	-	-
HCM Lane V/C Ratio	0.125	0.008	-	-	-	0.008	-	-	-
HCM Control Delay (s)	12.7	9.4	0	-	-	7.8	0	-	0
HCM Lane LOS	B	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	0	-	-	0	-	-	-

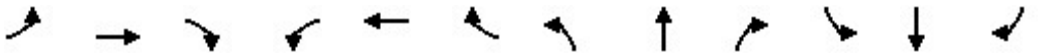
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	120	166	0	0	12
Future Vol, veh/h	36	120	166	0	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	130	180	0	0	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	180	0	-	0	388	180
Stage 1	-	-	-	-	180	-
Stage 2	-	-	-	-	208	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1396	-	-	-	616	863
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	827	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1396	-	-	-	598	863
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	825	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	SB
HCM Control Delay, s	1.8	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1396	-	-	-	863
HCM Lane V/C Ratio	0.028	-	-	-	0.015
HCM Control Delay (s)	7.7	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	3	9	101	6	66	4	328	105	48	409	15
Future Volume (veh/h)	7	3	9	101	6	66	4	328	105	48	409	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	3	10	107	6	70	4	349	112	51	435	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	69	125	555	13	256	559	583	187	543	771	28
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	344	427	771	1466	82	1585	940	1357	435	931	1793	66
Grp Volume(v), veh/h	20	0	0	113	0	70	4	0	461	51	0	451
Grp Sat Flow(s),veh/h/ln	1542	0	0	1548	0	1585	940	0	1792	931	0	1858
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.9	0.1	0.0	4.3	1.0	0.0	4.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	1.2	0.0	0.9	4.1	0.0	4.3	5.3	0.0	4.0
Prop In Lane	0.35		0.50	0.95		1.00	1.00		0.24	1.00		0.04
Lane Grp Cap(c), veh/h	470	0	0	568	0	256	559	0	770	543	0	799
V/C Ratio(X)	0.04	0.00	0.00	0.20	0.00	0.27	0.01	0.00	0.60	0.09	0.00	0.56
Avail Cap(c_a), veh/h	1463	0	0	1499	0	1295	923	0	1464	904	0	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	7.8	0.0	0.0	8.3	0.0	8.1	6.3	0.0	4.8	6.9	0.0	4.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.6	0.0	0.0	0.7	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	0.0	0.0	8.4	0.0	8.7	6.3	0.0	5.6	6.9	0.0	5.4
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		20			183			465			502	
Approach Delay, s/veh		7.9			8.5			5.6			5.5	
Approach LOS		A			A			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.0		8.1		14.0		8.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0				
Max Q Clear Time (g_c+I1), s		6.3		3.2		7.3		3.2				
Green Ext Time (p_c), s		2.1		0.0		2.1		0.6				
Intersection Summary												
HCM 6th Ctrl Delay			6.0									
HCM 6th LOS			A									

Intersection	
Int Delay, s/veh	12.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	7	2	106	2	75	9	511	117	87	398	6
Future Vol, veh/h	5	7	2	106	2	75	9	511	117	87	398	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	40	95	-	-	90	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	8	2	115	2	82	10	555	127	95	433	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1308	1329	437	1271	1269	619	440	0	0	682	0	0
Stage 1	627	627	-	639	639	-	-	-	-	-	-	-
Stage 2	681	702	-	632	630	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	155	620	145	168	489	1120	-	-	911	-	-
Stage 1	471	476	-	464	470	-	-	-	-	-	-	-
Stage 2	440	440	-	468	475	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	102	138	620	127	149	489	1120	-	-	911	-	-
Mov Cap-2 Maneuver	102	138	-	127	149	-	-	-	-	-	-	-
Stage 1	467	426	-	460	466	-	-	-	-	-	-	-
Stage 2	362	436	-	410	426	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	34.8	80.1	0.1	1.7
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1120	-	-	136	127	489	911	-	-
HCM Lane V/C Ratio	0.009	-	-	0.112	0.924	0.167	0.104	-	-
HCM Control Delay (s)	8.2	-	-	34.8	126.2	13.8	9.4	-	-
HCM Lane LOS	A	-	-	D	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	6.1	0.6	0.3	-	-

Intersection	
Int Delay, s/veh	7.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	168	110	49	139	101	18
Future Vol, veh/h	168	110	49	139	101	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	170	111	49	140	102	18

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	341	119	0	0	189	0
Stage 1	119	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	655	933	-	-	1385	-
Stage 1	906	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	607	933	-	-	1385	-
Mov Cap-2 Maneuver	607	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	6.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	704	1385	-
HCM Lane V/C Ratio	-	-	0.399	0.074	-
HCM Control Delay (s)	-	-	13.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.9	0.2	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	0	176	64	11	198	2	95	0	15	2	0	0
Future Vol, veh/h	0	176	64	11	198	2	95	0	15	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	20	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	183	67	11	206	2	99	0	16	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	208	0	0	250	0	0	446	447	217	454	479	207
Stage 1	-	-	-	-	-	-	217	217	-	229	229	-
Stage 2	-	-	-	-	-	-	229	230	-	225	250	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1363	-	-	1316	-	-	523	506	823	516	486	833
Stage 1	-	-	-	-	-	-	785	723	-	774	715	-
Stage 2	-	-	-	-	-	-	774	714	-	778	700	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1363	-	-	1316	-	-	519	501	823	503	482	833
Mov Cap-2 Maneuver	-	-	-	-	-	-	519	501	-	503	482	-
Stage 1	-	-	-	-	-	-	785	723	-	774	709	-
Stage 2	-	-	-	-	-	-	767	708	-	763	700	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	13	12.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	519	823	1363	-	-	1316	-	-	503
HCM Lane V/C Ratio	0.191	0.019	-	-	-	0.009	-	-	0.004
HCM Control Delay (s)	13.6	9.5	0	-	-	7.8	0	-	12.2
HCM Lane LOS	B	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	182	146	0	0	36
Future Vol, veh/h	12	182	146	0	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	194	155	0	0	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	155	0	-	0	375	155
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1425	-	-	-	626	891
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1425	-	-	-	620	891
Mov Cap-2 Maneuver	-	-	-	-	620	-
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	817	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1425	-	-	-	891
HCM Lane V/C Ratio	0.009	-	-	-	0.043
HCM Control Delay (s)	7.5	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Appendix D:
Signal Warrant Worksheets

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

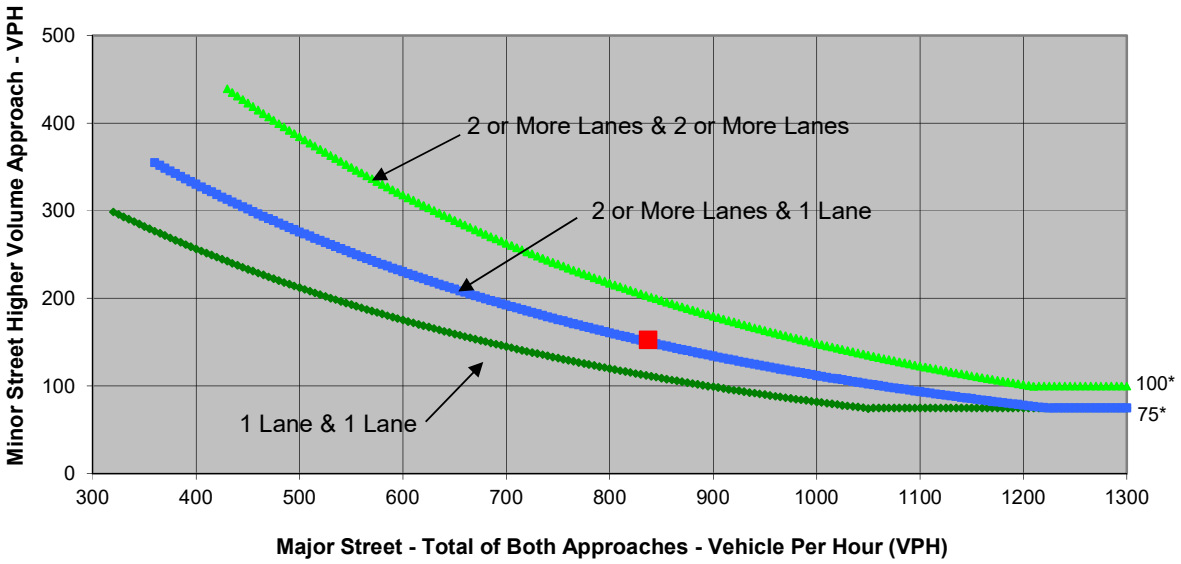
	NB	SB	EB	WB
Left	3	41	6	87
Through	315	393	2	5
Right	71	14	8	61
Total	389	448	16	153

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**837**	**153**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	3	41	6	87
Through	315	393	2	5
Right	71	14	8	61
Total	389	448	16	153

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	21.6
Approach with Worst Case Delay	WB
Total Vehicles on Approach	153

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.9**	**153**	**1,006**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

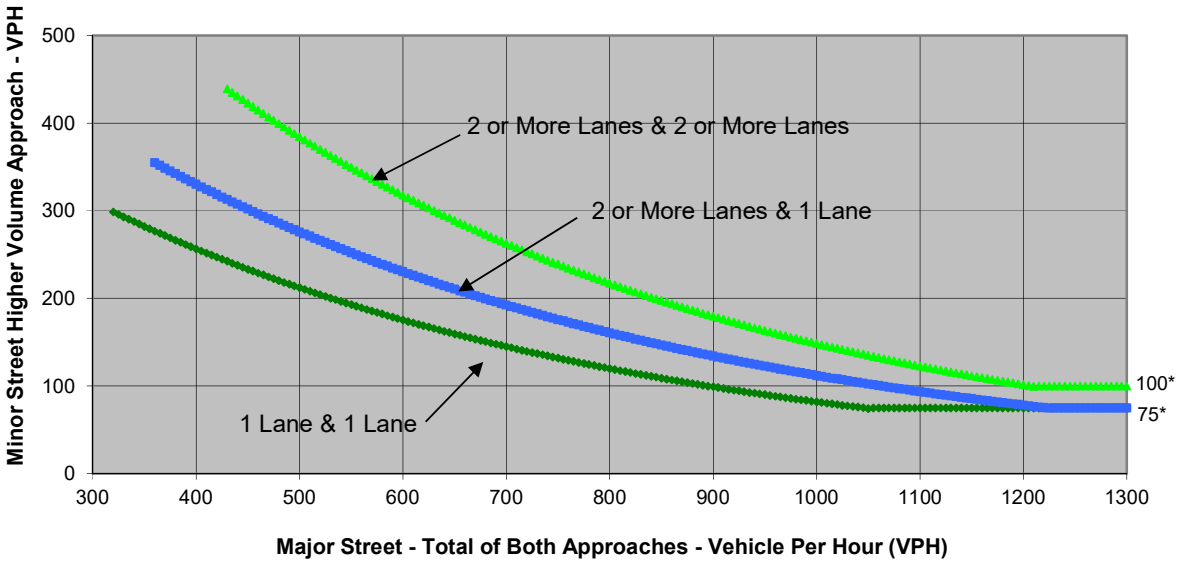
	NB	SB	EB	WB
Left		117		120
Through	40	27		
Right	97			87
Total	137	144	0	207

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**281**	**207**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing
Peak Hour	AM

Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	117	0	120
Through	40	27	0	0
Right	97	0	0	87
Total	137	144	0	207

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.8
Approach with Worst Case Delay	WB
Total Vehicles on Approach	207

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.7**	**207**	**488**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

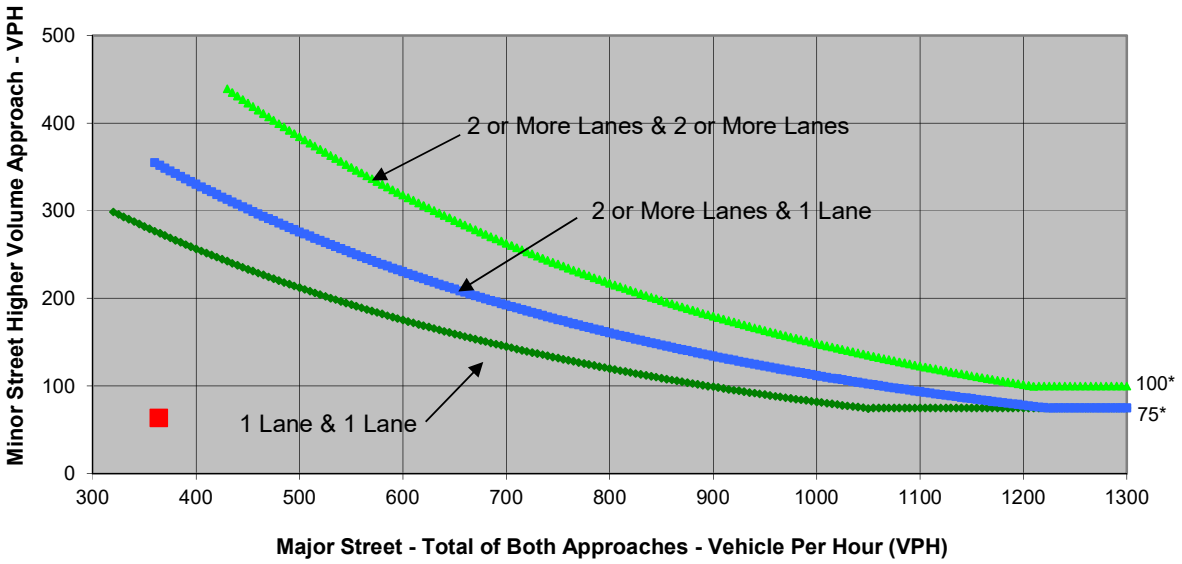
	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**364**	**64**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12
Approach with Worst Case Delay	NB
Total Vehicles on Approach	64

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.2**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Existing
		Peak Hour	PM

Turn Movement Volumes

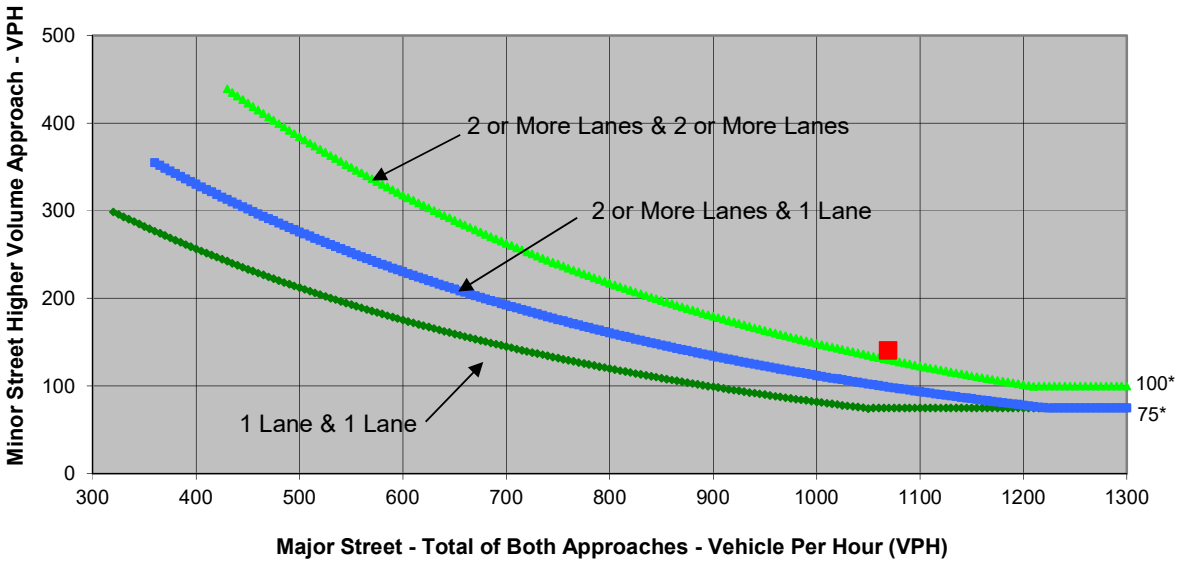
	NB	SB	EB	WB
Left	8	81	4	72
Through	491	382	6	1
Right	102	5	1	68
Total	601	468	11	141

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,069**	**141**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing
Peak Hour	PM

Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	8	81	4	72
Through	491	382	6	1
Right	102	5	1	68
Total	601	468	11	141

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	37.8
Approach with Worst Case Delay	WB
Total Vehicles on Approach	141

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**1.5**	**141**	**1,221**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Existing
		Peak Hour	PM

Turn Movement Volumes

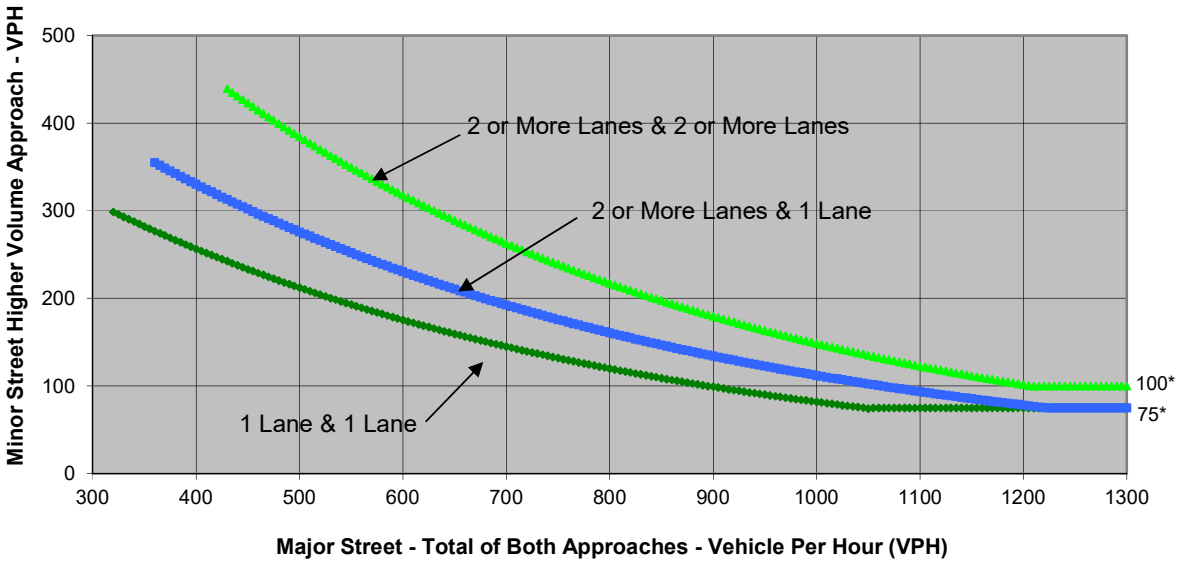
	NB	SB	EB	WB
Left		97		127
Through	47	17		
Right	122			104
Total	169	114	0	231

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**283**	**231**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing
Peak Hour	PM

Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	97		127
Through	47	17	0	0
Right	122	0	0	104
Total	169	114	0	231

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.1
Approach with Worst Case Delay	WB
Total Vehicles on Approach	231

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.8**	**231**	**514**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	PM

Turn Movement Volumes

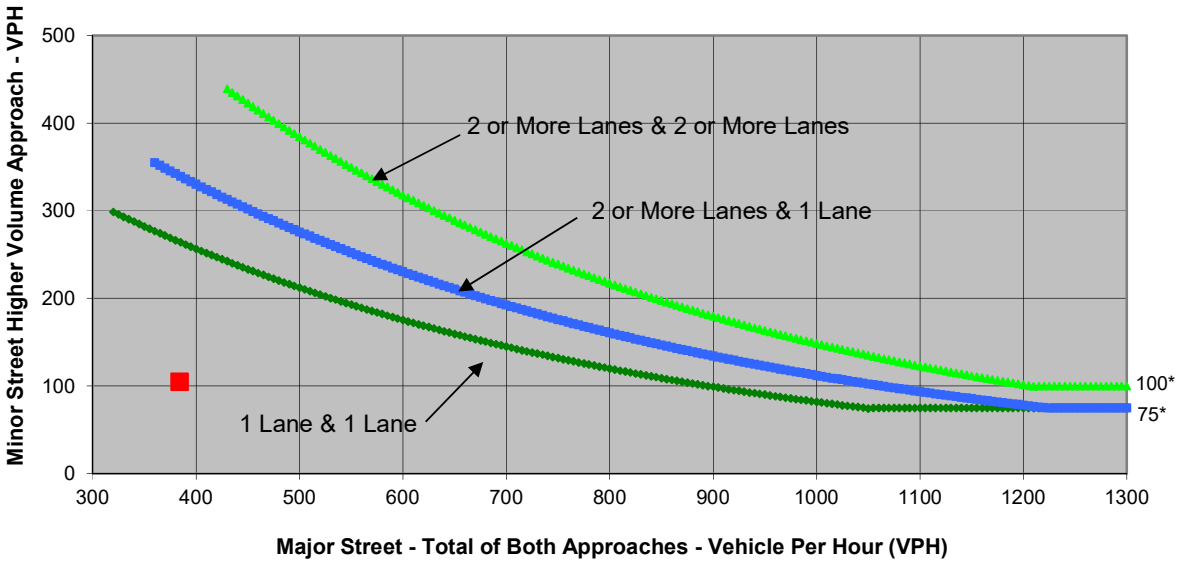
	NB	SB	EB	WB
Left	91	1	0	10
Through	0	0	157	155
Right	14	0	61	1
Total	105	1	218	166

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**384**	**105**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.1
Approach with Worst Case Delay	NB
Total Vehicles on Approach	105

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.4**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

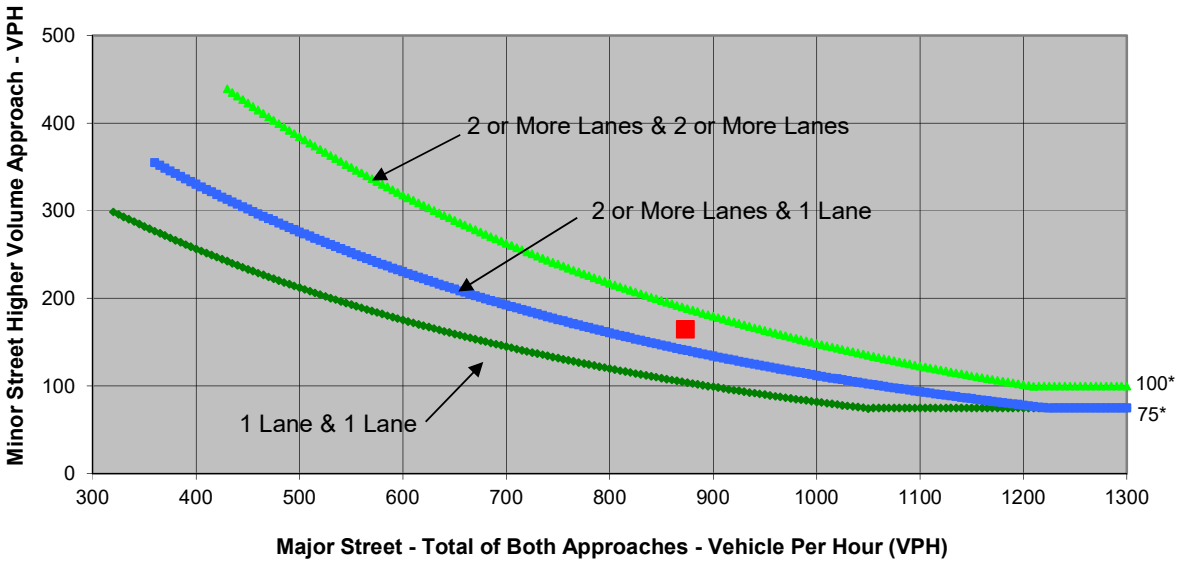
	NB	SB	EB	WB
Left	3	46	6	97
Through	315	393	2	5
Right	102	14	8	63
Total	420	453	16	165

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**873**	**165**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing Plus Project
Peak Hour	AM
Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	3	46	6	97
Through	315	393	2	5
Right	102	14	8	63
Total	420	453	16	165

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	24.3
Approach with Worst Case Delay	WB
Total Vehicles on Approach	165

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**1.1**	**165**	**1,054**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

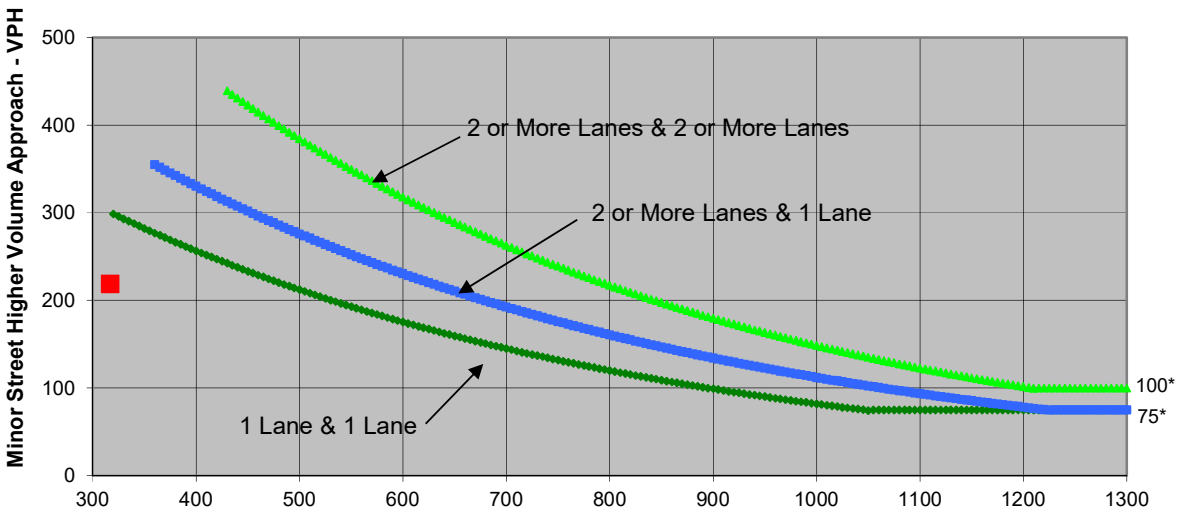
	NB	SB	EB	WB
Left	0	117	0	132
Through	40	27	0	0
Right	133	0	0	87
Total	173	144	0	219

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**317**	**219**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing Plus Project
Peak Hour	AM
Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	117	0	132
Through	40	27	0	0
Right	133	0	0	87
Total	173	144	0	219

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13.5
Approach with Worst Case Delay	WB
Total Vehicles on Approach	219

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0.8**	**219**	**536**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing Plus Project
		Peak Hour	AM

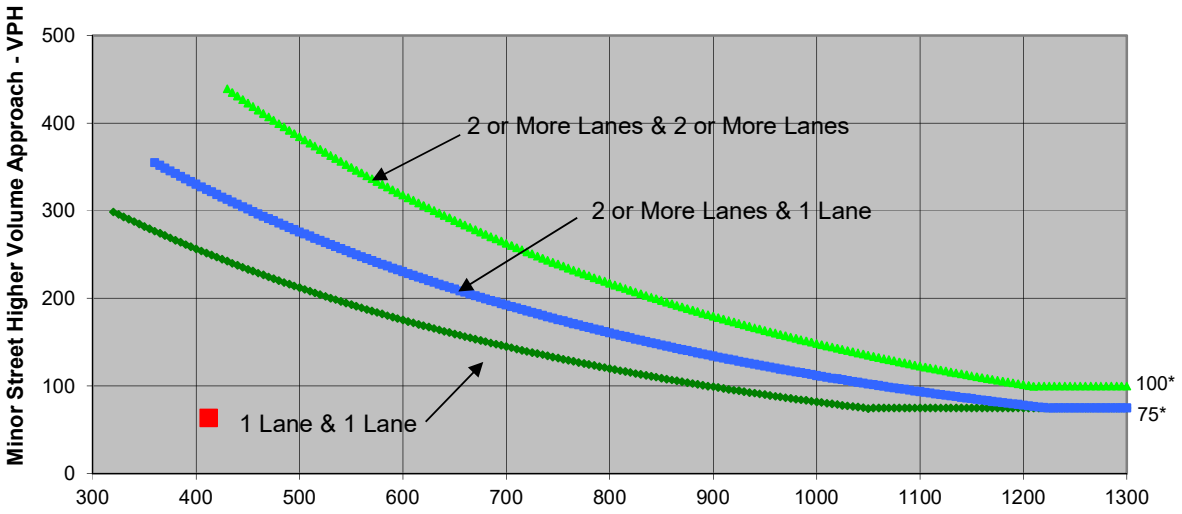
Turn Movement Volumes

	NB	SB	EB	WB
Left	59	0	0	8
Through	0	0	146	163
Right	5	0	95	0
Total	64	0	241	171

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**412**	**64**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.7
Approach with Worst Case Delay	NB
Total Vehicles on Approach	64

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0.2**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Project Driveway	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

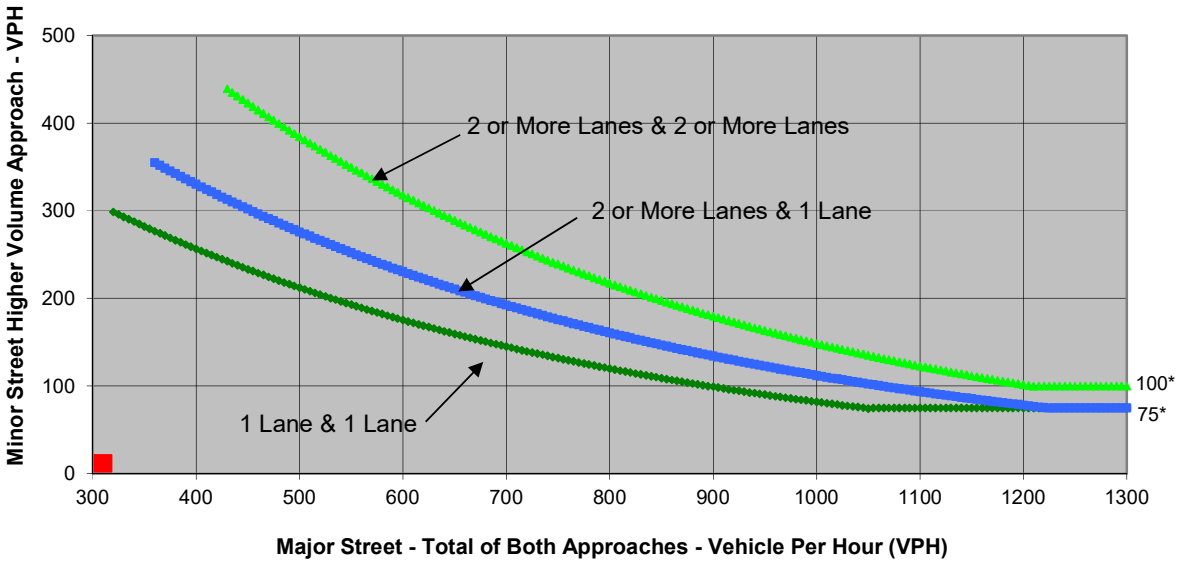
	NB	SB	EB	WB
Left	0	0	36	0
Through	0	0	115	159
Right	0	12	0	0
Total	0	12	151	159

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Project Driveway	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**310**	**12**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.2
Approach with Worst Case Delay	SB
Total Vehicles on Approach	12

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Existing Plus Project
		Peak Hour	PM

Turn Movement Volumes

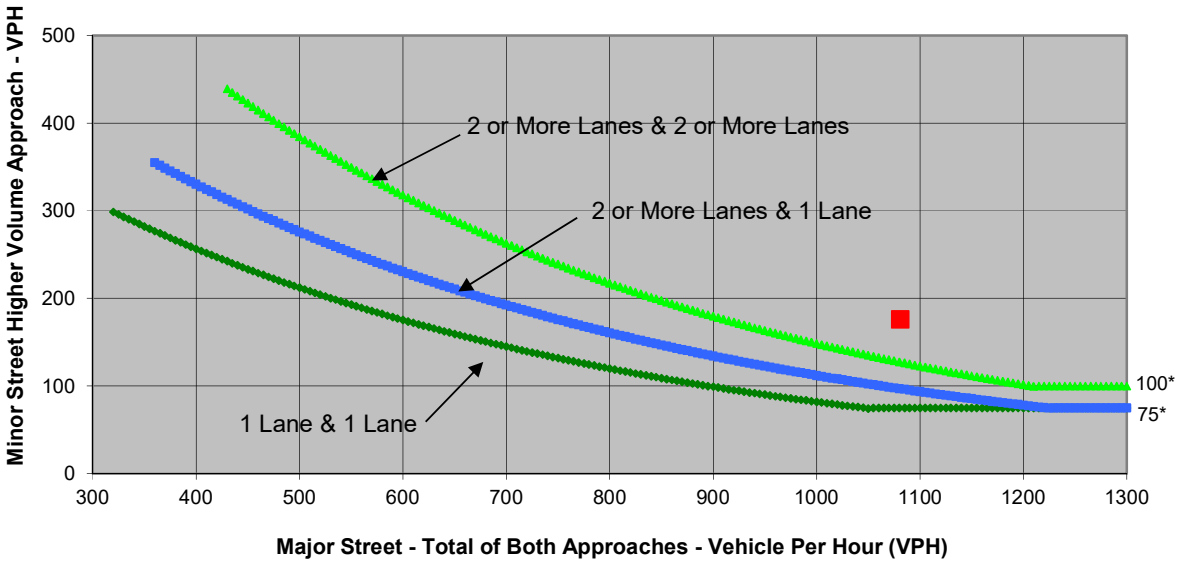
	NB	SB	EB	WB
Left	8	83	4	103
Through	491	382	6	1
Right	112	5	1	72
Total	611	470	11	176

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,081**	**176**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing Plus Project
Peak Hour	PM

Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	8	83	4	103
Through	491	382	6	1
Right	112	5	1	72
Total	611	470	11	176

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	64.7
Approach with Worst Case Delay	WB
Total Vehicles on Approach	176

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**3.2**	**176**	**1,268**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Existing Plus Project
		Peak Hour	PM

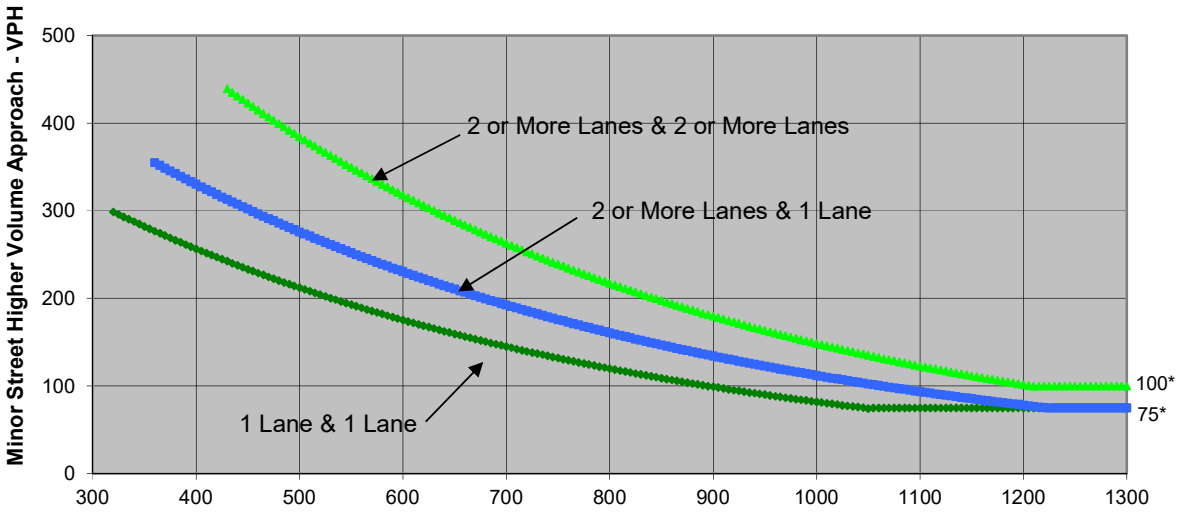
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	97	0	162
Through	47	17	0	0
Right	134	0	0	105
Total	181	114	0	267

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**295**	**267**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Existing Plus Project
Peak Hour	PM
Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	97	0	162
Through	47	17	0	0
Right	134	0	0	105
Total	181	114	0	267

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13.1
Approach with Worst Case Delay	WB
Total Vehicles on Approach	267

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**1**	**267**	**562**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing Plus Project
		Peak Hour	PM

Turn Movement Volumes

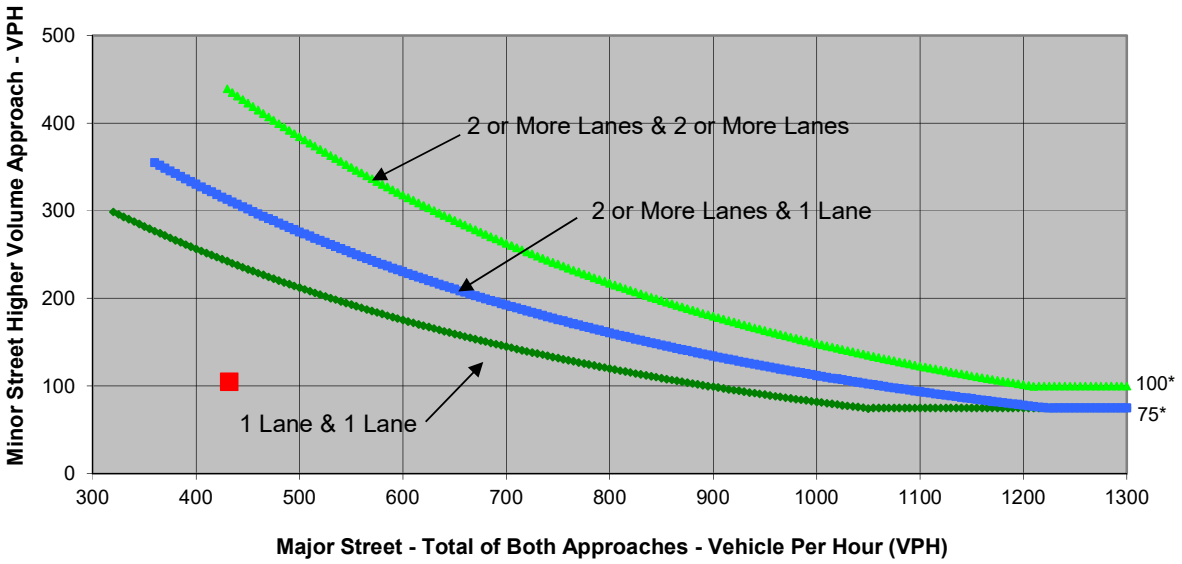
	NB	SB	EB	WB
Left	91	1	0	10
Through	0	0	169	191
Right	14	0	61	1
Total	105	1	230	202

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**432**	**105**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.7
Approach with Worst Case Delay	NB
Total Vehicles on Approach	105

NB			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0.4**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Project Driveway	Scenario	Existing Plus Project
		Peak Hour	PM

Turn Movement Volumes

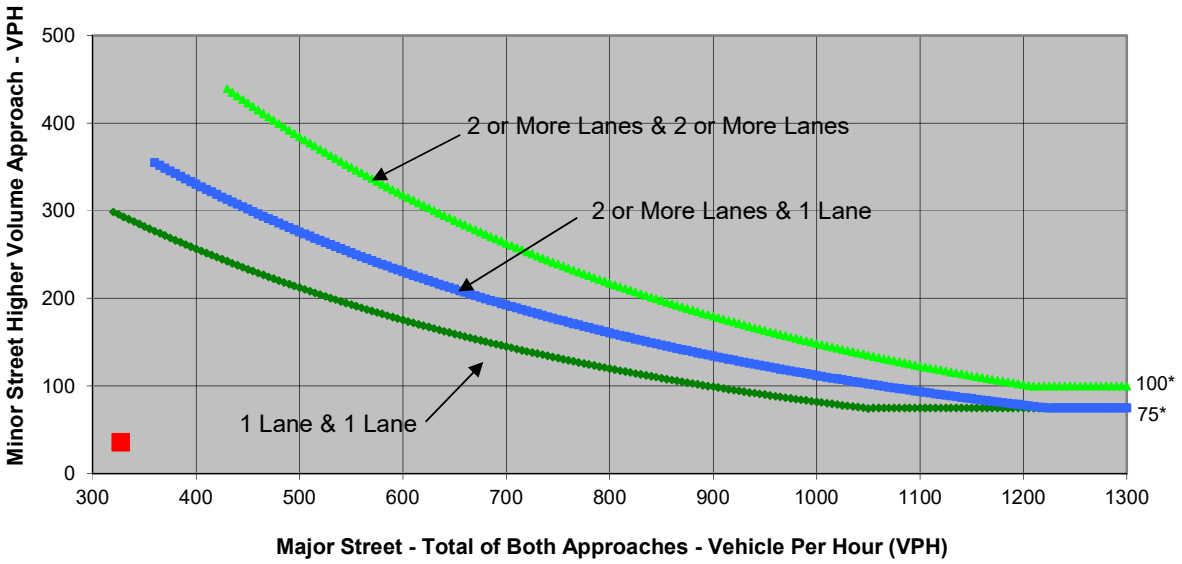
	NB	SB	EB	WB
Left	0	0	12	0
Through	0	0	175	140
Right	0	36	0	0
Total	0	36	187	140

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Project Driveway	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**327**	**36**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road
Minor Street	Project Driveway

Project	CCC Willits
Scenario	Existing Plus Project
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	0	12	0
Through	0	0	175	140
Right	0	36	0	0
Total	0	36	187	140

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.2
Approach with Worst Case Delay	SB
Total Vehicles on Approach	36

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0.1**	**36**	**363**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Future Year (2023)
		Peak Hour	AM

Turn Movement Volumes

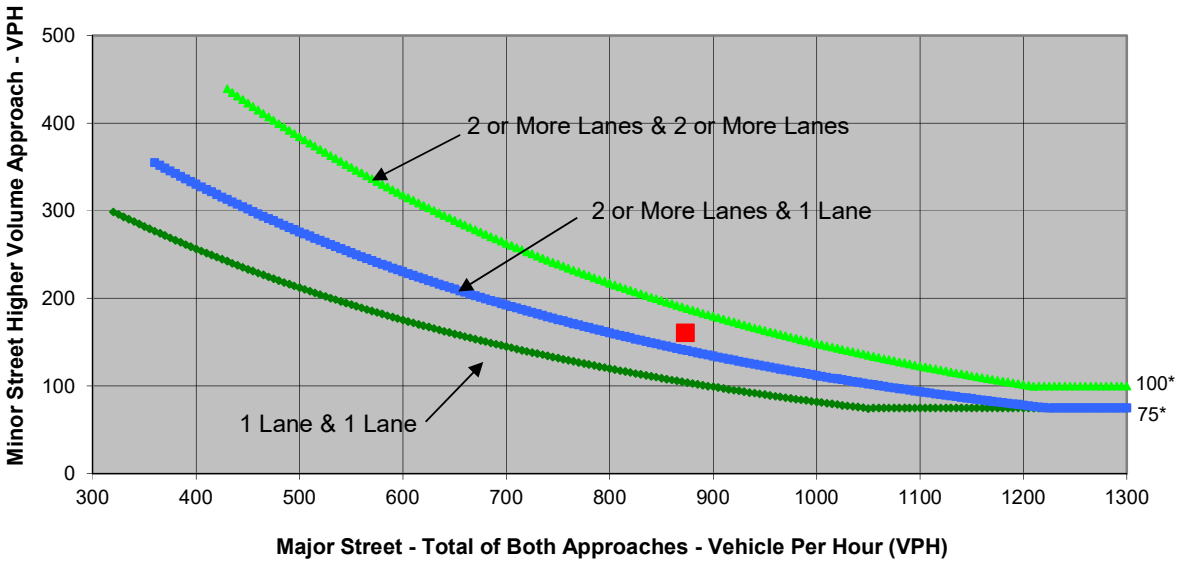
	NB	SB	EB	WB
Left	4	43	7	91
Through	328	409	3	6
Right	74	15	9	64
Total	406	467	19	161

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**873**	**161**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023)
Peak Hour	AM

Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	4	43	7	91
Through	328	409	3	6
Right	74	15	9	64
Total	406	467	19	161

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	24.1
Approach with Worst Case Delay	WB
Total Vehicles on Approach	161

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023)	**1.1**	**161**	**1,053**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Future Year (2023)
		Peak Hour	AM

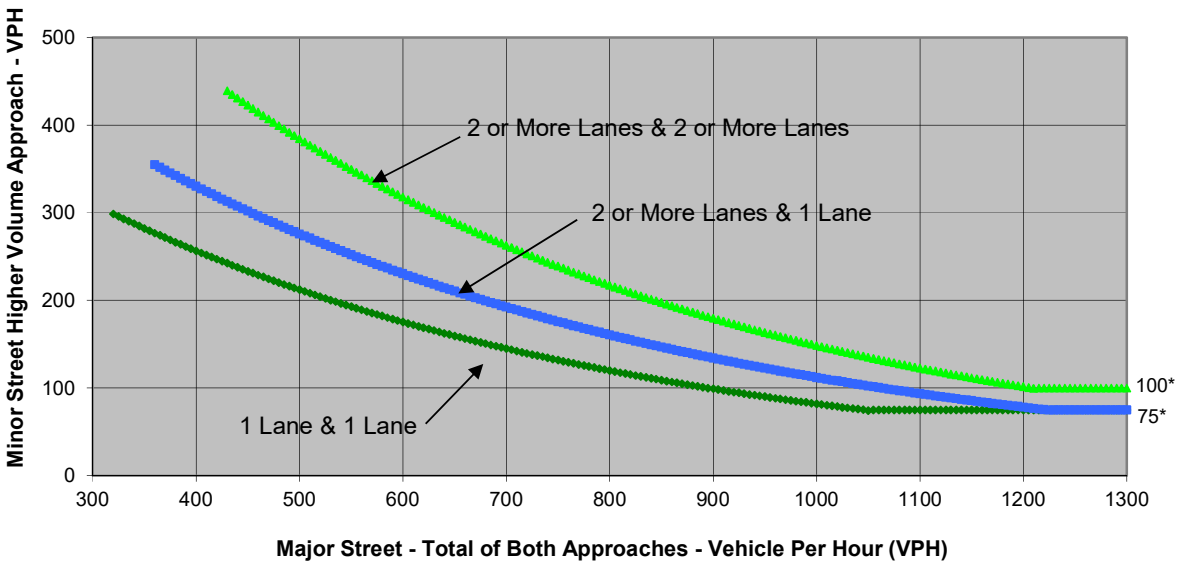
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	122	0	125
Through	42	29	0	0
Right	101	0	0	91
Total	143	151	0	216

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**294**	**216**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023)
Peak Hour	AM
Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	122	0	125
Through	42	29	0	0
Right	101	0	0	91
Total	143	151	0	216

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13.3
Approach with Worst Case Delay	WB
Total Vehicles on Approach	216

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023)	**0.8**	**216**	**510**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	AM

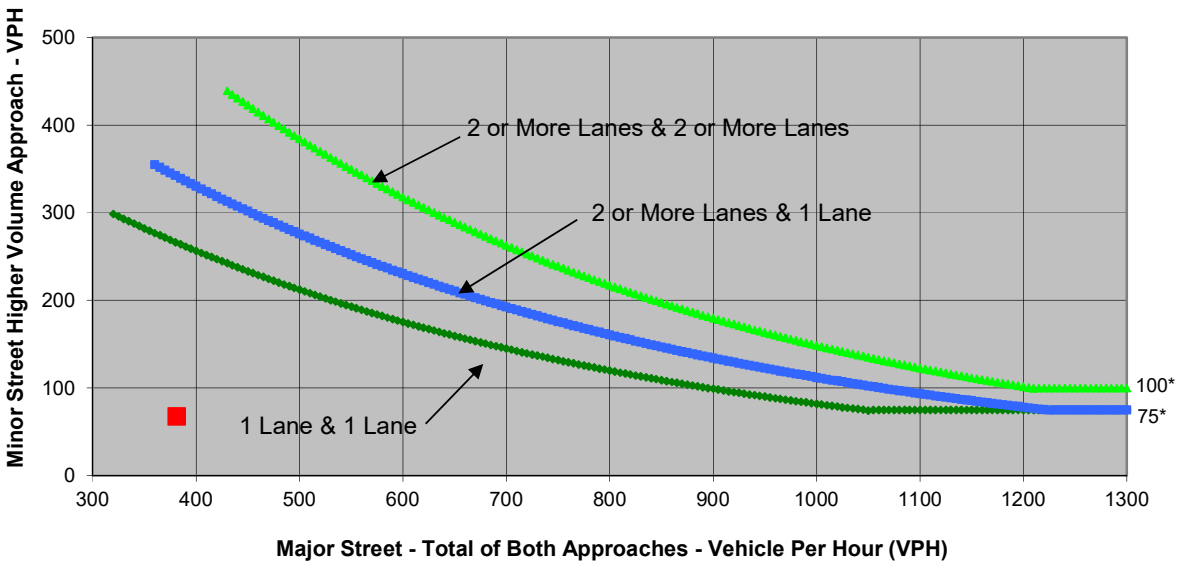
Turn Movement Volumes

	NB	SB	EB	WB
Left	62	0	0	9
Through	0	0	115	158
Right	6	0	99	0
Total	68	0	214	167

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**381**	**68**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Existing
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	11.8
Approach with Worst Case Delay	NB
Total Vehicles on Approach	68

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing	**0.2**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Future Year (2023)
		Peak Hour	PM

Turn Movement Volumes

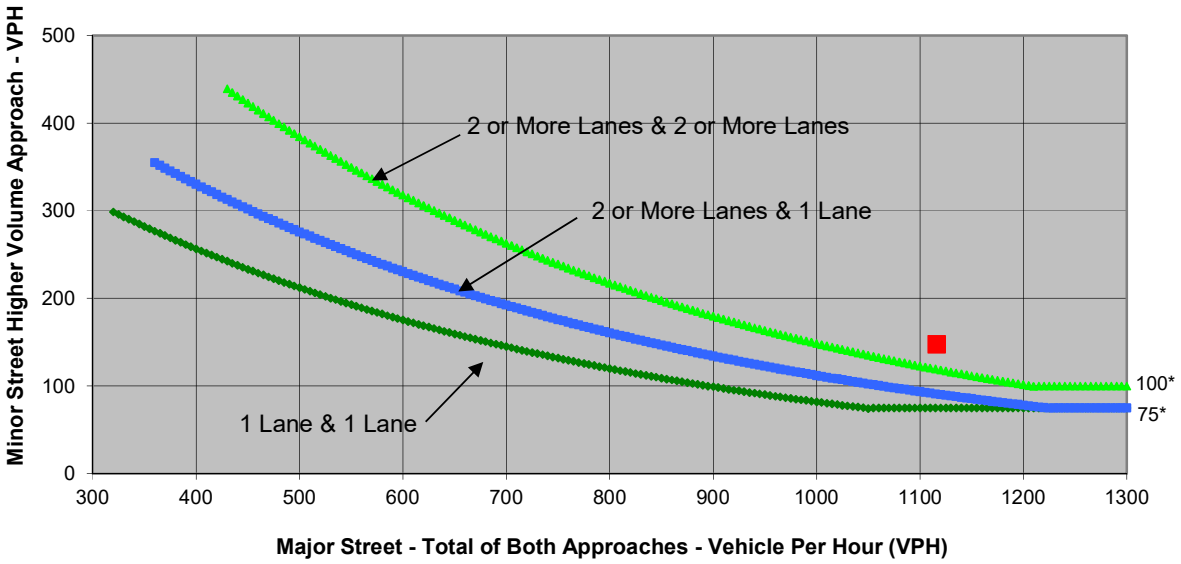
	NB	SB	EB	WB
Left	9	85	5	75
Through	511	398	7	2
Right	107	6	2	71
Total	627	489	14	148

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	**Minor Street**	**Warrant Met**
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,116**	**148**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023)
Peak Hour	PM
Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	9	85	5	75
Through	511	398	7	2
Right	107	6	2	71
Total	627	489	14	148

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	44.4
Approach with Worst Case Delay	WB
Total Vehicles on Approach	148

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023)	**1.8**	**148**	**1,278**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Future Year (2023)
		Peak Hour	PM

Turn Movement Volumes

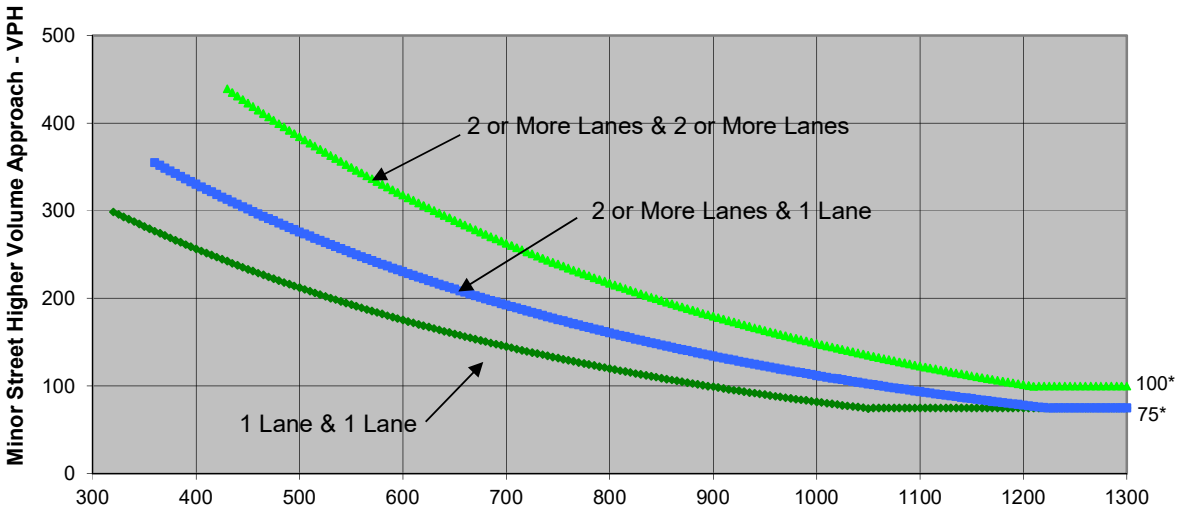
	NB	SB	EB	WB
Left	0	101	0	133
Through	49	18	0	0
Right	127	0	0	109
Total	176	119	0	242

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**295**	**242**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023)
Peak Hour	PM

Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	101	0	133
Through	49	18	0	0
Right	127	0	0	109
Total	176	119	0	242

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.5
Approach with Worst Case Delay	WB
Total Vehicles on Approach	242

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023)	**0.8**	**242**	**537**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023)
		Peak Hour	PM

Turn Movement Volumes

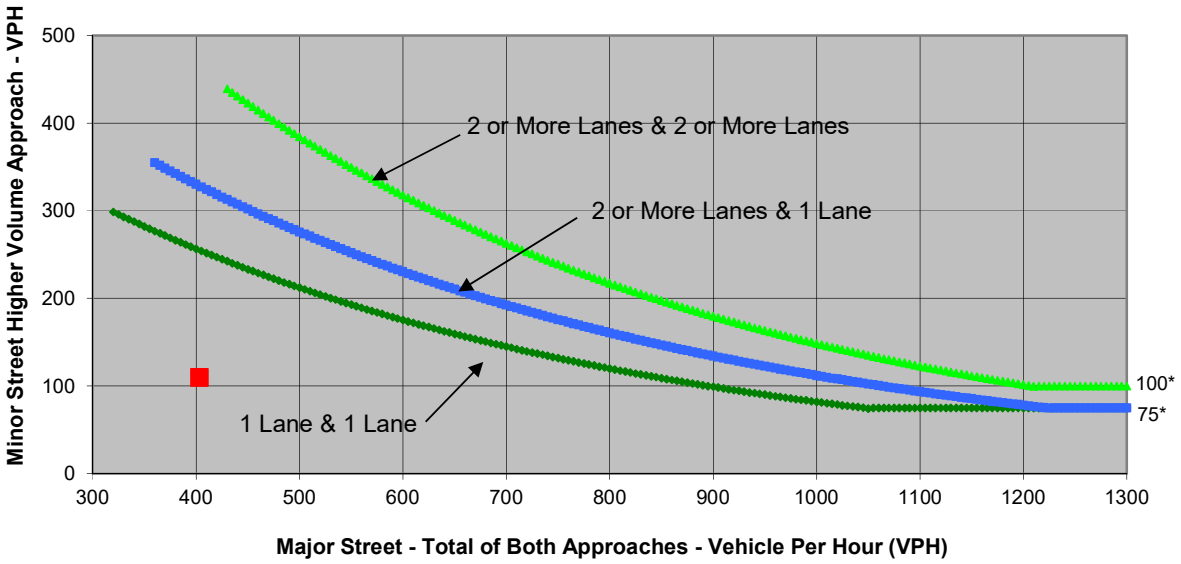
	NB	SB	EB	WB
Left	95	2	0	11
Through	0	0	164	162
Right	15	0	64	2
Total	110	2	228	175

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**403**	**110**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023)
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.3
Approach with Worst Case Delay	NB
Total Vehicles on Approach	110

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023)	**0.4**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

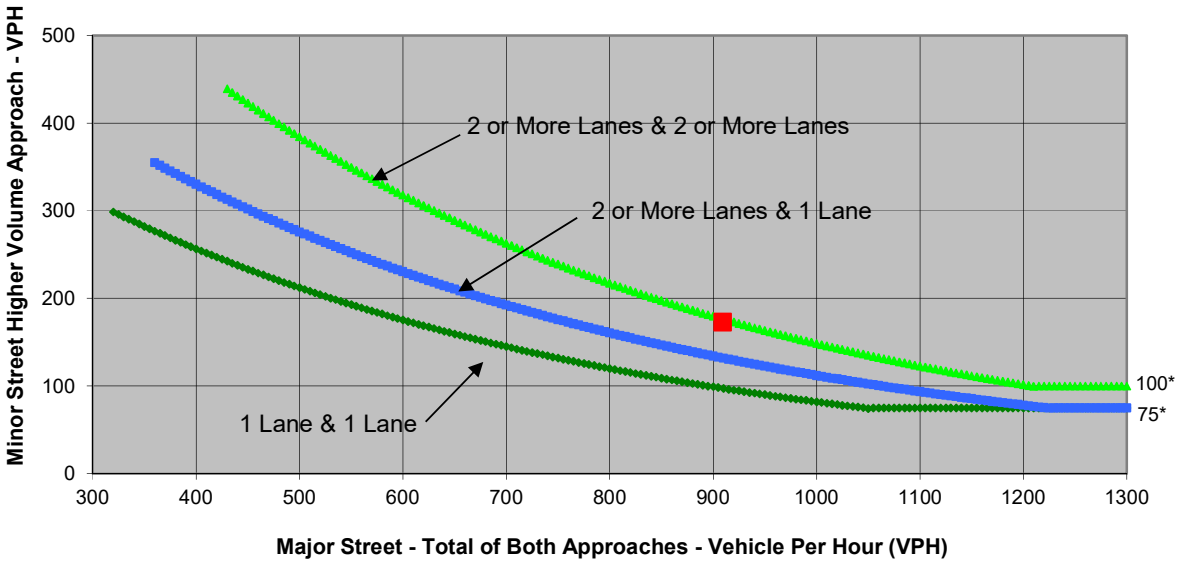
	NB	SB	EB	WB
Left	4	48	7	101
Through	328	409	3	6
Right	105	15	9	66
Total	437	472	19	173

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**909**	**173**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023) Plus Project
Peak Hour	AM

Major Street	Main Street
Minor Street	Baechtel Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	4	48	7	101
Through	328	409	3	6
Right	105	15	9	66
Total	437	472	19	173

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	27.6
Approach with Worst Case Delay	WB
Total Vehicles on Approach	173

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**1.3**	**173**	**1,101**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

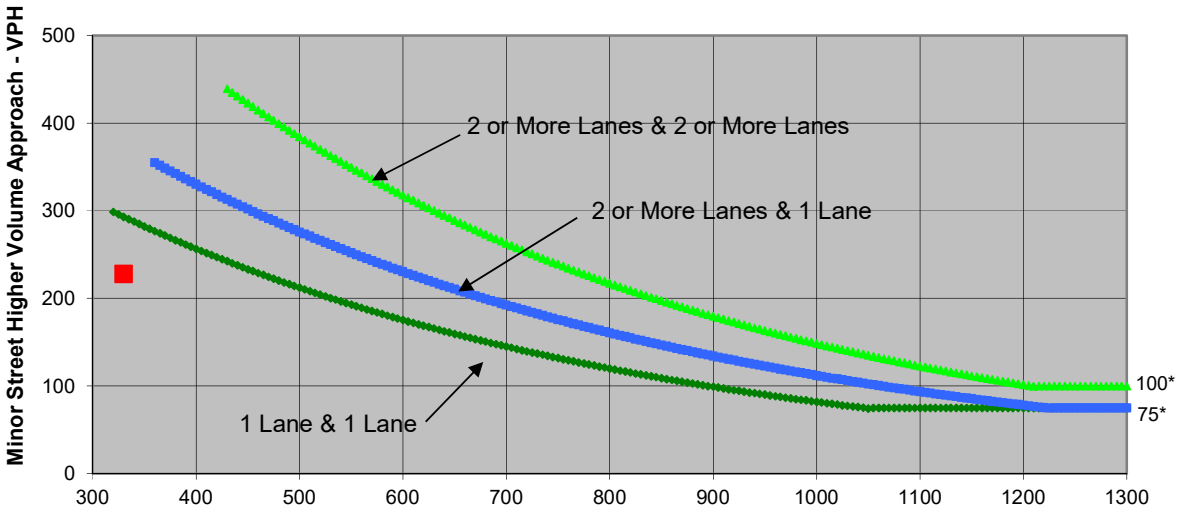
	NB	SB	EB	WB
Left	0	122	0	137
Through	42	29	0	0
Right	137	0	0	91
Total	179	151	0	228

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**330**	**228**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	122	0	137
Through	42	29	0	0
Right	137	0	0	91
Total	179	151	0	228

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	14.1
Approach with Worst Case Delay	WB
Total Vehicles on Approach	228

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**0.9**	**228**	**558**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

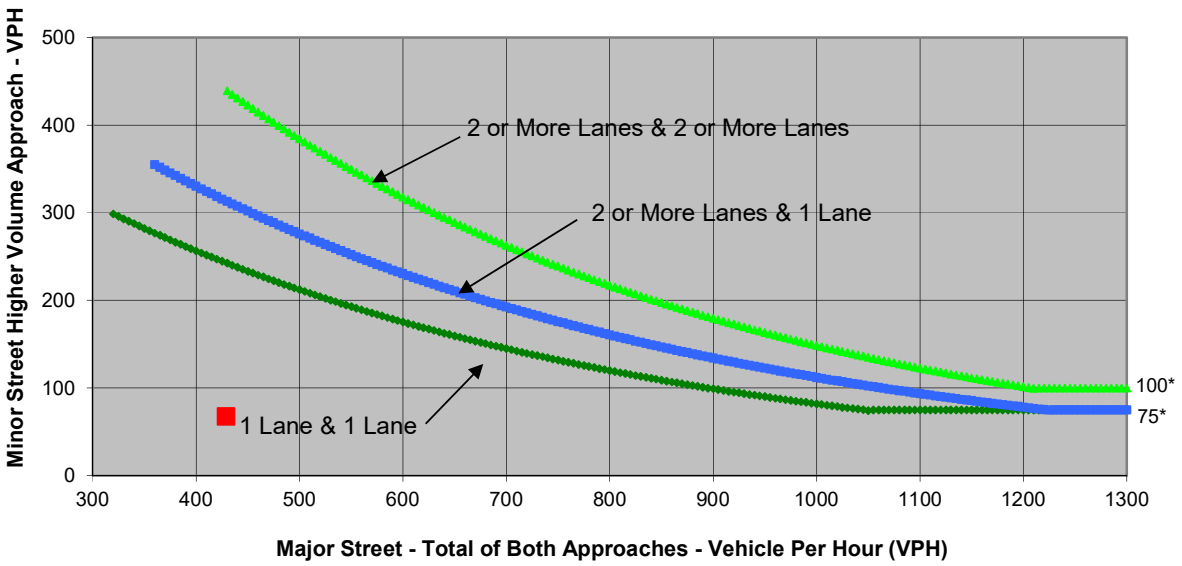
Turn Movement Volumes

	NB	SB	EB	WB
Left	62	0	0	9
Through	0	0	151	170
Right	6	0	99	0
Total	68	0	250	179

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**429**	**68**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.4
Approach with Worst Case Delay	NB
Total Vehicles on Approach	68

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**0.2**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Project Driveway	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

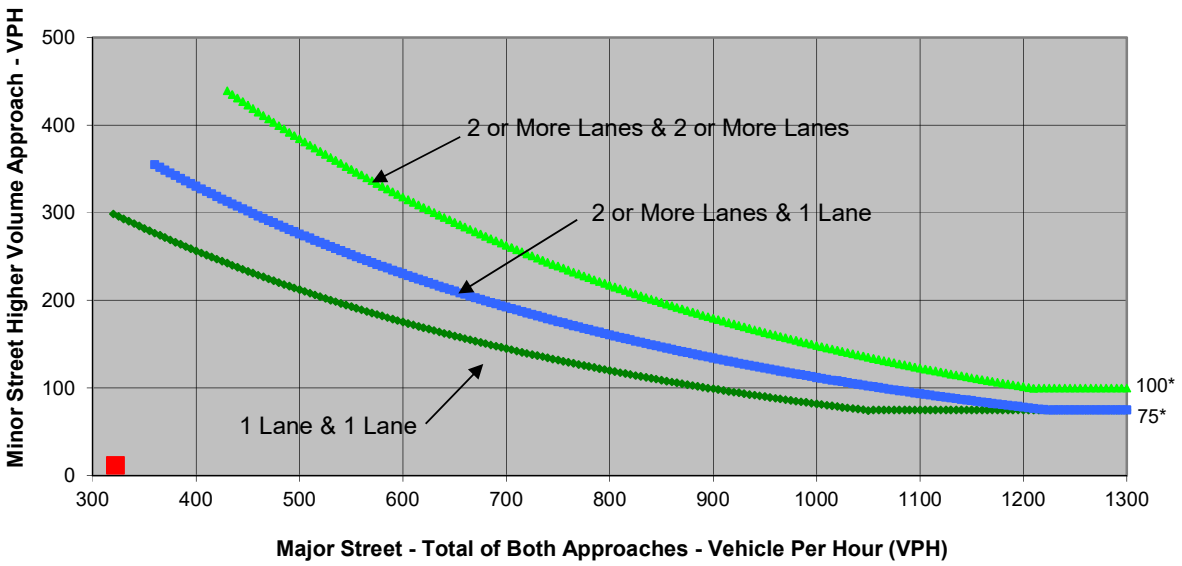
	NB	SB	EB	WB
Left	0	0	36	0
Through	0	0	120	166
Right	0	12	0	0
Total	0	12	156	166

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Project Driveway	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**322**	**12**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.2
Approach with Worst Case Delay	SB
Total Vehicles on Approach	12

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**0**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Main Street	Project	CCC Willits
Minor Street	Baechtel Road	Scenario	Future Year (2023) Plus Project
		Peak Hour	PM

Turn Movement Volumes

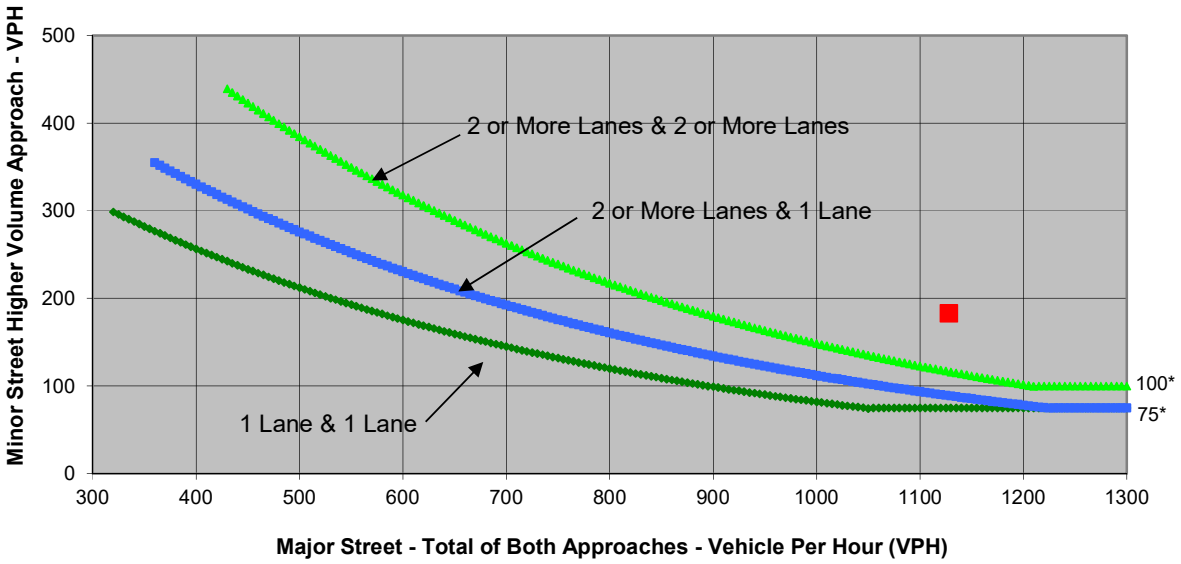
	NB	SB	EB	WB
Left	9	87	5	106
Through	511	398	7	2
Right	117	6	2	75
Total	637	491	14	183

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Main Street	Baechtel Road	
Number of Approach Lanes	**1**	**1**	**YES**
Traffic Volume (VPH) *	**1,128**	**183**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Main Street
Minor Street	Baechtel Road

Project	CCC Willits
Scenario	Future Year (2023) Plus Project
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	9	87	5	106
Through	511	398	7	2
Right	117	6	2	75
Total	637	491	14	183

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	80.1
Approach with Worst Case Delay	WB
Total Vehicles on Approach	183

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**4.1**	**183**	**1,325**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Major Street	Baechtel Road	Project	CCC Willits
Minor Street	Hill Road	Scenario	Future Year (2023) Plus Project
		Peak Hour	PM

Turn Movement Volumes

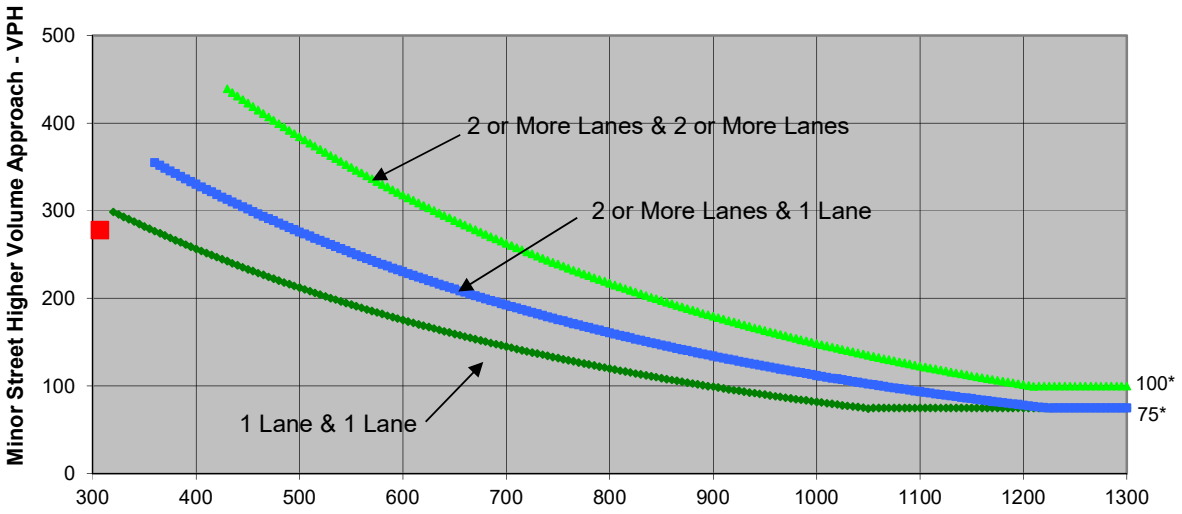
	NB	SB	EB	WB
Left	0	101	0	168
Through	49	18	0	0
Right	139	0	0	110
Total	188	119	0	278

Major Street Direction

x	North/South
	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR

ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Baechtel Road	Hill Road	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**307**	**278**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Project	CCC Willits
Scenario	Future Year (2023) Plus Project
Peak Hour	PM

Major Street	Baechtel Road
Minor Street	Hill Road

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	101	0	168
Through	49	18	0	0
Right	139	0	0	110
Total	188	119	0	278

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13.5
Approach with Worst Case Delay	WB
Total Vehicles on Approach	278

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**1**	**278**	**585**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023) Plus Project
		Peak Hour	PM

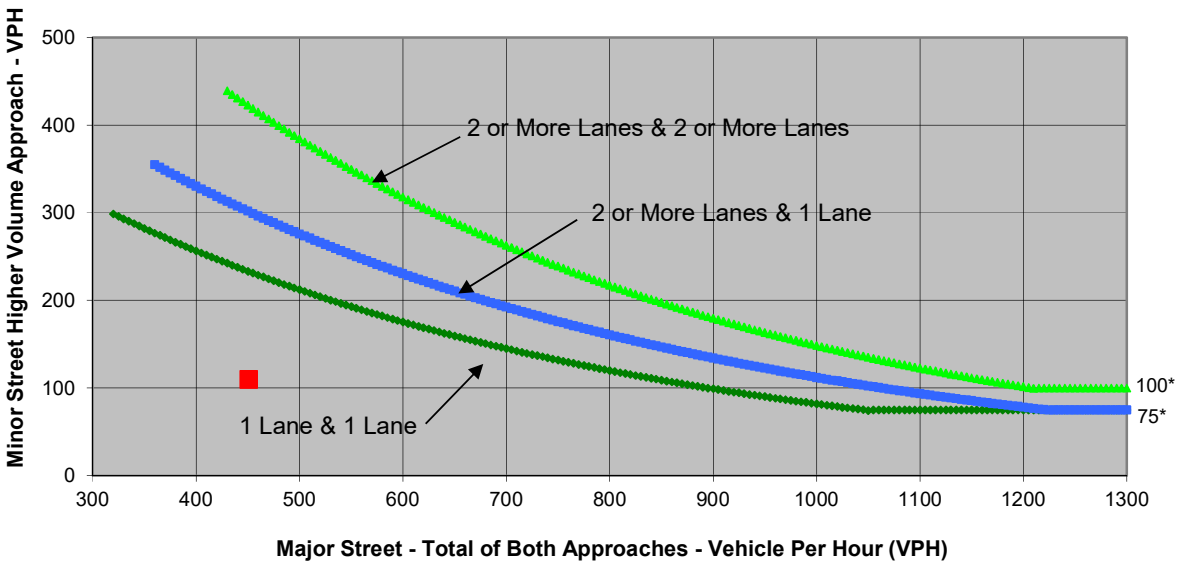
Turn Movement Volumes

	NB	SB	EB	WB
Left	95	2	0	11
Through	0	0	176	198
Right	15	0	64	2
Total	110	2	240	211

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Haehl Creek Drive	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**451**	**110**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Haehl Creek Drive	Scenario	Future Year (2023) Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	59			8
Through			110	151
Right	5		95	
Total	64	0	205	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13
Approach with Worst Case Delay	NB
Total Vehicles on Approach	110

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**0.4**	**64**	**428**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Project Driveway	Scenario	Future Year (2023) Plus Project
		Peak Hour	PM

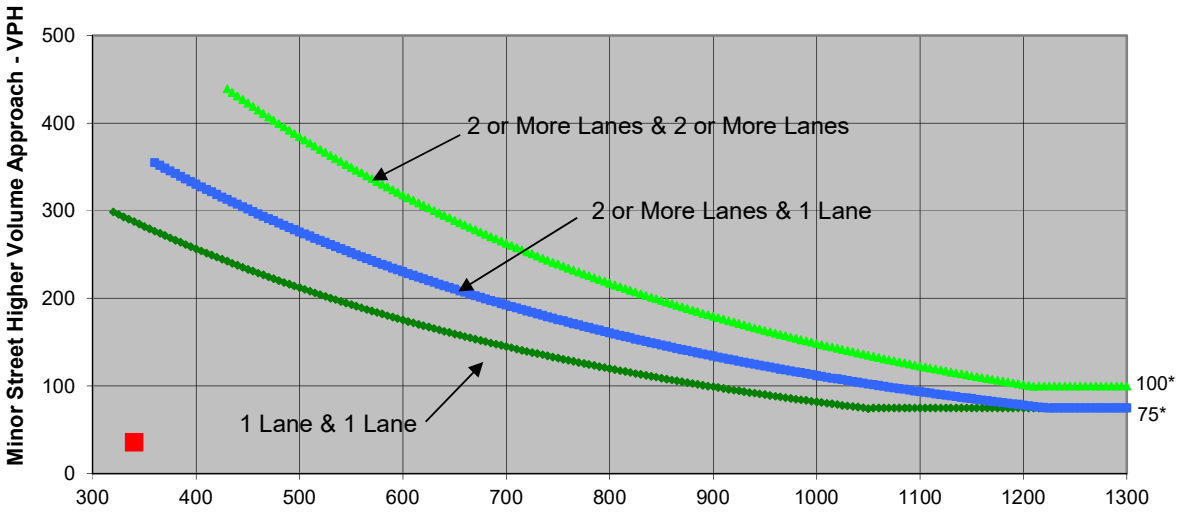
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	0	12	0
Through	0	0	182	146
Right	0	36	0	0
Total	0	36	194	146

Major Street Direction

	North/South
x	East/West

Figure 4C-4. Warrant 3B, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET



* Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Hill Road	Project Driveway	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**340**	**36**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Hill Road	Project	CCC Willits
Minor Street	Project Driveway	Scenario	Future Year (2023) Plus Project
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	0	12	0
Through	0	0	182	146
Right	0	36	0	0
Total	0	36	194	146

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.2
Approach with Worst Case Delay	SB
Total Vehicles on Approach	36

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Future Year (2023) Plus Project	**0.1**	**36**	**376**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Not Met**	**Not Met**
Warrant Met	**NO**		

Phase I Environmental Site Assessment

Bemcore Property, East Hill Road, Willits, California
APNs 007-160-18 and 007-100-28

Prepared for:

California Department of General Services

Real Estate Services Division

May 2018
418043

812 W. Wabash Ave., Eureka, CA 95501-2138 707-441-8855
Civil Engineering, Environmental Services, Geosciences, Planning & Permitting, Surveying

Reference: 418043

May 14, 2018

Ms. Stephanie Coleman
DGS-RESD
707 - 3rd Street, MS-509
West Sacramento, CA 95605

Subject: Phase I Environmental Site Assessment; Bemcore Property, East Hill Road, Willits, California; APNs 007-160-18 and 007-100-28

Dear Ms. Coleman:

Enclosed is our Phase I environmental site assessment (ESA) for the Bemcore Property located on East Hill Road (Assessor's parcel numbers 007-160-18 and 007-100-28) Willits, California.

As part of our detailed Phase I ESA, SHN did not encounter evidence of past or present land uses that may have generated or caused the release of regulated or hazardous materials at the property.

SHN's research conducted for the subject property included site reconnaissance, reviews of historical topographic maps, aerial photographs, agency records, and interviews.

If you have any questions, or if we can be of further assistance, please call either Anna Gower at 707-441-8855 or Roland Rueber at 707-845-5909.

Respectfully submitted,

SHN Engineers & Geologists

Roland Rueber, PG
Project Geologist

RMR/ACG:lms

Enclosure: Report

Reference: 418043

Phase I Environmental Site Assessment

Bemcore Property, East Hill Road, Willits, California, APNs 007-160-18 and 007-100-28

Prepared for:
California Department of General Services
Real Estate Services Division

Prepared by:

812 W. Wabash Ave.
Eureka, CA 95501-2138
707-441-8855

May 2018

QA/QC:RMR

Table of Contents

Table of Contents, Continued

List of Illustrations

Abbreviations and Acronyms

AAI	all appropriate inquiry
APN	Assessor's parcel number
ASTM	ASTM-International
BGS	below ground surface
CDMG	California Department of Mines and Geology
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CFR	Code of Federal Regulations
COC	constituent of concern
CRL	Confirmed Release List and Inventory
DGS-RESD	Department of General Services-Real Estate Services Division
DOQQ	digital orthophoto quarter quadrangle
DTSC	Department of Toxic Substances Control
ECHO	Enforcement and Compliance History Information
ECSI	Environmental Cleanup Site Information System
EDR	Environmental Data Resources, Incorporated
ENVIROSTOR	The DTSC's EnviroStor database
EPA	United States Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	environmental site assessment
FEMA	Federal Emergency Management Agency
FINDS	Facility Index System/Facility Registry System
FRDS	Federal Reporting Data System
HIST CORTESE	combination of LUST, Integrated Waste Board, and DTSC sites
HIST UST	Historical UST Registered Database
HMRIS	Hazardous Materials information Reporting Systems
IP	Industrial Park zone
LUCIS	local land use control information
LUST	Leaking Underground Storage Tank Incident Reports database
MCDEH	Mendocino County Health and Human Services Agency, Division of Environmental Health
MH	Heavy Industrial zone
NAIP	National Agriculture Imagery Program
NPL	National Priorities List
NR	no reference
NWI	National Wetland Inventory
PG&E	Pacific Gas & Electric Company
PWS	Public Water System
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RWQCB	North Coast Regional Water Quality Control Board
SLIC	Spills, Leaks, Investigation, and Cleanup
SQG	small quantity generator
SVOC	semi-volatile organic compound
SWF/LF	Solid Waste Facilities/Landfill Site Database
USC	U.S. Code
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	underground storage tank
VOC	volatile organic compound

1.0 Introduction

1.1 Purpose

In April and May 2018, SHN conducted a Phase I environmental site assessment (ESA) of two properties located in Willits, California. The two properties are identified as Mendocino County Assessor's parcel numbers (APNs) 007-160-18 and 007-100-28 (subject site or site). Vicinity and site maps are included as Figures 1 and 2. This Phase I ESA was requested by the California Department of General Services, Real Estate Services Division (DGS-RESD), in order to complete the due diligence process prior to purchasing these parcels.

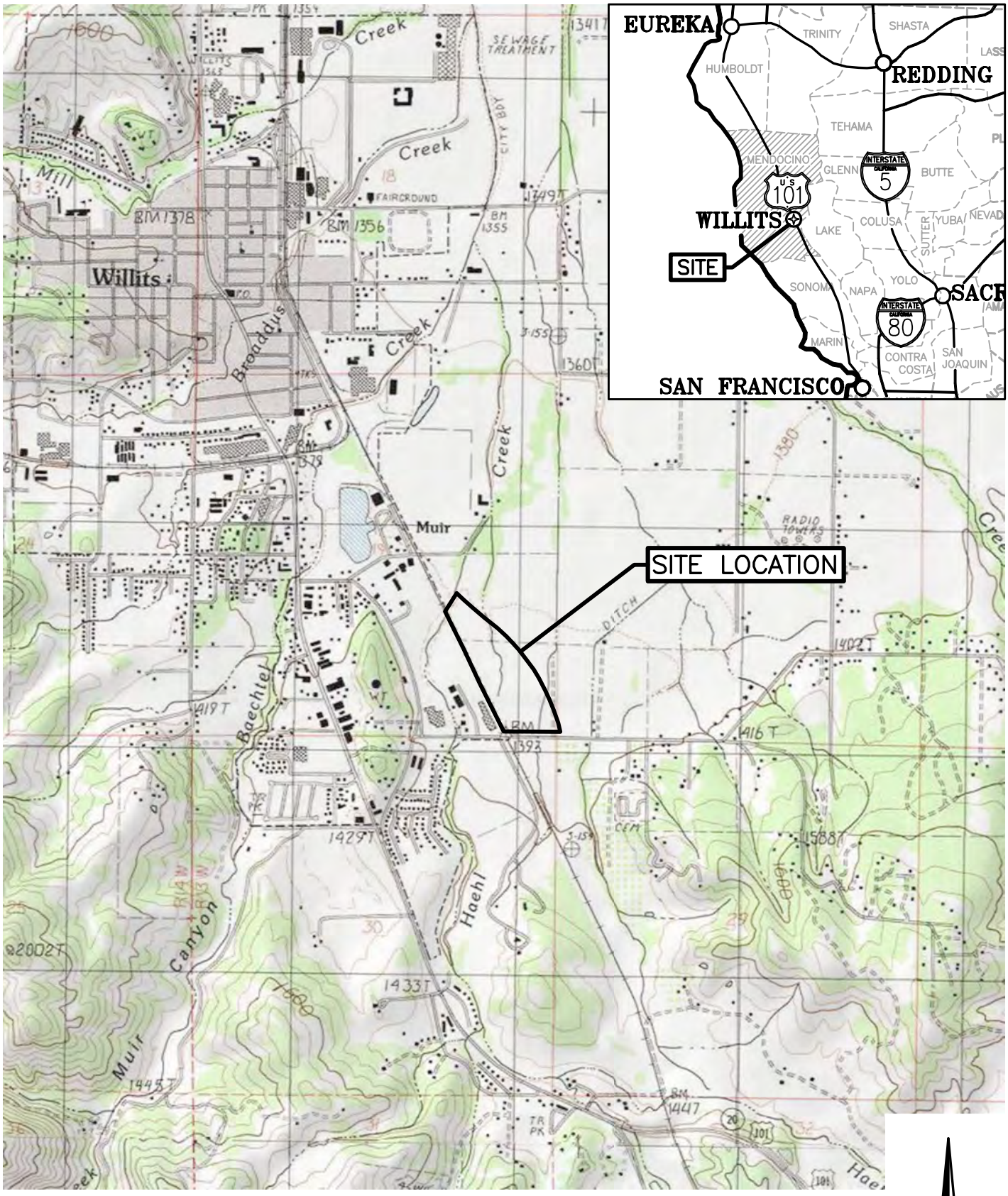
The purpose of conducting a Phase I ESA is to assess the site, largely based on current circumstances, with respect to the presence or absence in the environment, of regulated or hazardous materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and Department of Toxic Substances Control (DTSC) Title 22 of the California Code of Regulations. This Phase I ESA was prepared in general accordance with ASTM-International (ASTM) Standard Practice E1527-13 for the Phase I ESA process.

This Phase I ESA was conducted in general conformance with the regulations and sections according to the United States Environmental Protection Agency (EPA) Final Rule pertaining to standards and practices for all appropriate inquiries (AAI), and addresses the latest landowner liability protections that have evolved as a result of the United States Congress's actions and the new EPA rule (that is, the addition of the contiguous property owner and bona fide prospective purchaser defenses related to liability under the CERCLA [or Superfund]). The AAI Rule suggests that the environmental professional include an opinion regarding additional appropriate investigation, if any, to detect the presence of hazardous substances or petroleum products. This practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability; that is, practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice," as defined in 42 United States Code (USC) 9601 (35)(B).

This report has been prepared on behalf of, and for the exclusive use of DGS-RESD, and its designated representatives; furthermore, it is subject to and issued in connection with the agreement with SHN and the provisions thereof.

1.2 Involved Parties

Table 1 (following page) presents a list of involved parties.



Consulting Engineers & Geologists, Inc.	DGS-RESD East Hill Road Phase 1 Willits, California	Site Location Map SHN 418043
	May 2018 | 418043-SITE-LCTN	Figure 1

\\Eureka\Projects\CAD-FILES\Willits\2018\418043, SAVED: 5/8/2018 8:18 AM CNEWELL, PLOTTED: 5/8/2018 8:24 AM, CHRIS D. NEWELL

NOTES:

LOCATIONS OF SITE FEATURES ARE APPROXIMATE.

APN=ASSESSOR'S PARCEL NUMBER.

HIGHWAY 101

HAEHL CREEK

PHOTO #8

APN 007-100-28

APN 007-160-18

PHOTO #7

CREEK

PHOTO #6

MICROPHOR

PG&E EASEMENT AND POWER POLES

JP

PHOTO #4

PHOTO #5

CREEK

AREA OF HOUSEHOLD-LIKE WASTE

FORMER NORTHWESTERN PACIFIC RAILROAD CORRIDOR

PHOTO #2

AREA OF STANDING WATER

PHOTO #9

PHOTO #3

PHOTO #11

PHOTO #10

PHOTO #1

EAST HILL ROAD

HORSE FEEDER SHED

MEDICAL OFFICES

HAEHL CREEK RD

FRANK HOWARD MEMORIAL HOSPITAL

N

0 300

1"=300'

Consulting Engineers & Geologists, Inc.

DGS-RESD East Hill Road Phase 1 Willits, California		Site Plan SHN 418043
May 2018	418043-SITE-PLAN	Figure 2

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Table 1. Involved Parties
APNs 007-160-18 and 007-100-28, Willits, California

Current Property Owner	
Name: Bemcore Enterprises Incorporated and Margie Lee Handley	Phone Number: 707-489-1080
Mailing Address: 31801 Sherwood Road, Willits, California 95490	
Prospective Buyer	
Name: State of California	Phone Number: 916-376-1826
Mailing Address: 707 - 3rd Street, West Sacramento, California 95605	

2.0 Scope of Work

In accordance with ASTM Standard E1527-13, SHN performed the following ESA services in preparation of this document:

- Conducted field reconnaissance of the subject site to look for evidence of existing or potential soil and groundwater contamination, or other potential recognized environmental conditions (RECs).
- Provided color photographs of the subject site (Appendix 1).
- Conducted a survey of the site vicinity, to identify businesses or facilities that may use, produce, and/or store reportable quantities of hazardous materials or generate hazardous waste. SHN conducted a perimeter survey of the immediately adjacent properties for obvious signs of potential contaminant migration.
- Reviewed local and regional geological and groundwater conditions in the vicinity of the subject site. Identified existing or proposed municipal infrastructure for the property and vicinity, including potable water, wastewater, and stormwater provisions, as mandated by the ASTM guidelines.
- Examined aerial photographs of the site taken over an approximate 76-year period; reviewed the available United States Geological Survey (USGS) topographic maps, historical business directories, and Sanborn Fire Insurance maps (Appendix 2). Additionally, SHN reviewed the Preliminary Title Report, Assessor's parcel map, and other maps of interest (Appendix 3). SHN also reviewed other reasonably ascertainable standard sources for developing a continuous site history dating back to the first known development, as recommended by the ASTM guidelines.
- Using the ASTM-designated search radii, SHN reviewed publicly available federal, state, county, and other regulatory agency lists and databases (including Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS], National Priorities List [NPL], and several other federal, Native American, and state listed sites) with known hazardous materials contamination and/or registered underground storage tanks (USTs) that are presently or were previously located on or near the subject site (Appendix 4).
- Reviewed and completed a land use questionnaire (supplied by SHN, Appendix 5). The user of this Phase I ESA is DGS-RESD, and its representative completed a questionnaire for the subject site (Appendix 5).

- Reviewed and/or discussed selected regulatory agency files and records that are maintained at the Mendocino County Health and Human Services Agency, Division of Environmental Health (MCDEH), the North Coast Regional Water Quality Control Board (RWQCB), the County of Mendocino Planning and Building Services, and Geotracker to evaluate whether the site or any of the immediately adjacent sites are likely to be potential hazardous materials threat to the subject site.
- Identified and commented on the existence and significance of potential data gaps.
- Identified RECs.
- Provided an opinion regarding the need for additional appropriate investigation.
- Commented on the potential for vapor intrusion, as required by ASTM E1527-13.

3.0 Site Overview

3.1 Location

The subject parcels are located along East Hill Road, in the City of Willits, in the County of Mendocino, California. Two parcels comprise the site and are identified by the Mendocino County Assessor as APNs 007-160-18 and 007-100-28. The approximate elevation of the subject site is approximately 1,388 feet above mean sea level, according to the USGS 2012 topographic map for Ukiah, California. Topographic maps illustrate generally flat lying site topography. The mean annual rainfall in the area is approximately 37 inches.

APNs 007-160-18 and 007-100-28 are zoned by the City of Willits as Industrial Park (IP) and Heavy Industrial (MH). The predominant land usage within a ½-mile radius of the site is IP and MH.

3.2 Adjacent Properties

North: Immediately north of the subject property is Haehl Creek and US Highway 101, beyond which is agricultural land.

West: Immediately west of the subject property is the former Northwestern Pacific Railroad rail corridor beyond which is the Microphor facility.

South: Immediately south of the subject property is East Hill Road, beyond which are Frank Howard Memorial Hospital and a medical office facility.

East: Immediately east of the subject property is US Highway 101, beyond which is agricultural land.

SHN did not observe any evidence of a hazardous release or potential release onto the subject site from the northern, eastern, southern, or western adjoining sites. Photographs of the subject site and adjacent sites are included in Appendix 1.

3.3 Site Description

The subject site is approximately 26.65 acres (APN 007-100-28 equals approximately 4.81 acres and APN 007-160-18 equals approximately 21.84 acres) in size and is located in an industrial and commercial area in the southeastern portion of Willits, California. The site is bound by Haehl Creek and US Highway 101, beyond which is agricultural land to the north; US Highway 101, beyond which is agricultural land to the east; East Hill Road, beyond which is a hospital and medical offices to the south; and the Northwestern Pacific Railroad rail corridor, beyond which is the Microphor facility to the west. There is currently one small structure present on the subject site.

Generally, the property is vegetated with some mature trees and grasses. Mature blackberry bushes are present along the western property line. The mature trees are generally present along the two unnamed creeks that are located in the central and southeastern portions of the property. Water was present in both creeks during the April 2018 site reconnaissance; however, there was little to no flow.

Access to the property is along East Hill Road in the southeastern corner of the site. A small shed is located approximately 30 feet from the access gate and was formerly used as a horse feeder. The property perimeter is fenced. Pacific Gas & Electric Company (PG&E) currently holds an easement for an overhead electric transmission line.

A site plan, which identifies locations of April 2018 site reconnaissance photographs and observations, is included as Figure 2.

3.4 Preliminary Title Report

A preliminary title report was provided by DGS-RESD. The current property owners are Bemcore Enterprises Incorporated (Bemcore) and Margie Lee Handley. Bemcore and Ms. Handley purchased the site in December 2016. The preliminary title report did not indicate that there were environmental liens or activity or use limitations at the site. Easements to PG&E and the State of California for ingress/egress for public utilities and access were noted in the preliminary title report.

4.0 Site History and Operations

4.1 General Description

Based upon our review of the historical maps, aerial photographs, and a site assessment questionnaire (interview), SHN has summarized the general site history as presented in Table 2.

Table 2. Site History
APNs 007-160-18 and 007-100-28, Willits, California

Date	Name and/or Operations	Site Owner(s)
1941–1992	Undeveloped	Unknown
1992 to 2016	Undeveloped and horse pasture	Margie Lee Handley
2016 to Present	Undeveloped	Bemcore Enterprises

4.2 Operations Using, Storing, or Disposing of Hazardous Substances

No observations related to the use, storage, or disposal of hazardous substances or petroleum products were made during the site reconnaissance of the subject site. With the exception of the PG&E easement, there is no current operation at the site.

4.3 Description of Environmental Permits Held

The MCDEH regulates hazardous materials storage and use in the county. No environmental permit was found for the subject site.

5.0 Environmental Setting

5.1 Regional Physiography

5.1.1 General Physiography

According to the EDR report (Appendix 4), the subject site is not situated within the 100- and 500-year flood zones and portions of the site are not included in the National Wetland Inventory (NWI) mapping. However, the extreme northwestern portion of the property appears to be immediately adjacent to a 500-year flood zone along Haehl Creek.

FEMA Flood Zone: Flood Plain Panel at Target Property: 06045C1114F
National Wetland Inventory: Not available according to EDR; Yes—refer to the EDR Overview Map and Detail Map

The site lies within the Little Lake Valley within the northern section of the Coast Range in Northern California. The Coast Range has had many alterations in its geology as deposition, volcanic activity, uplifting, faulting, folding, and erosion have greatly altered the entire region. The primary geologic unit in the site vicinity is the Jurassic Age Franciscan Formation. The Franciscan Formation is composed of sandstone, claystone, shale, conglomerate, chert, greenstone, and metagraywacke. Flood plain alluvial deposits typically overlie the Franciscan Formation in the region's valleys. These alluvial deposits commonly act as groundwater recharge and storage areas.

5.1.2 Tectonic Setting

The subject property is located within a region of active tectonic deformation, with large scale features (such as, the Maacama Fault Zone). The Maacama Fault zone is located just east of the subject site (http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/WILLITS_NE.PDF). There is no mapped fault on the subject site.

5.2 Soil Conditions

Geology in the vicinity of the subject site was mapped as Quaternary alluvium (Jennings and Strand, 1960). According to the EDR report, the dominant upper soil component in the vicinity of the subject site is Gielow, a Class C soil with layers of fine to moderately fine soil impeding downward movement of water (Appendix 4).

5.3 Groundwater Conditions

Based upon the EDR report, the federal USGS, and the Federal Reporting Data System Public Water System (FRDS PWS) well information, there are 16 water supply wells listed as being within 1 mile of the site. Based on review of publically available information for the Microphor property (abutting property to the west), shallow groundwater is encountered beneath the site and vicinity at depths ranging from approximately 5 to 10 feet below ground surface (BGS). Based on local topography and a reported westerly flow of groundwater at the neighboring Microphor property, groundwater at the site is presumed to flow west to northwest, toward Haehl Creek.

6.0 Results of Investigation

6.1 Site Reconnaissance

SHN staff performed site reconnaissance on April 26, 2018, which consisted of a visual inspection of the subject site, noting potential sources or evidence of any hazardous materials releases, location and alignment of utilities, site drainage patterns, uses of adjacent parcels, potential for migration from offsite sources, and any other pertinent or unusual information that would aide in the development of this Phase I ESA. A site plan, which identifies locations of April 2018 site reconnaissance photographs and observations, is included as Figure 2.

The site is bound by Haehl Creek and US Highway 101, beyond which is agricultural land to the north; US Highway 101, beyond which is agricultural land to the east; East Hill Road, beyond which is a hospital and medical offices to the south; and the Northwestern Pacific Railroad rail corridor, beyond which is the Microphor facility to the west. There is currently one small structure present on the subject site.

Generally, the property is vegetated with some mature trees and grasses. Mature blackberry bushes are present along the western property line. The mature trees are generally present along the two unnamed creeks that are located in the central and southeastern portions of the property. Water was present in both creeks during the April 2018 site reconnaissance; however, there was little to no flow.

Access to the property is along East Hill Road in the southeastern corner of the site. A small shed is located approximately 30 feet from the access gate and was formerly used as a horse feeder. The property perimeter is fenced. PG&E currently holds an easement for an overhead electric transmission line.

The subject site does not have electric, gas, water, or sewer services. Stormwater runoff from the site appears to infiltrate into the subsurface at the site or flows to the two small creeks. Based on site topography, drainage is generally to the west-northwest, toward the Haehl Creek. No odor, staining, or sheen was noted at the subject site during the April 2018 site reconnaissance. No area of stressed vegetation, pits, ponds, or lagoons was observed during the April 2018 site reconnaissance.

An area of standing water was observed in the southeastern portion of the site during the April 2018 site reconnaissance. Household-like waste (bottles, trash bags, food packaging, and clothing) was noted in the southeastern portion of the site during the April 2018 site reconnaissance.

SHN completed a “Site Assessment Questionnaire” following the site walk (Appendix 5).

6.2 Project Vicinity

6.2.1 Historical Use Information on Surrounding Area Properties

Several sites within a 1-mile radius of the subject site are known or suspected to have stored and/or used regulated materials, and/or have had toxic material releases, including leaking USTs (Table 3). There are multiple sites located within an approximate ¼-mile that are in a presumed upgradient or cross-gradient location of the subject site. SHN reviewed the listings included in the EDR Radius Map Report (Appendix 4) for proximity to the subject site, position relative to groundwater flow direction, and constituents of concern (COCs). Based on SHN's review, sites located within an approximate upgadient or cross-gradient position with documented groundwater contamination are listed in Table 3 are further discussed in this section.

Table 3. Agency-Listed Sites Within a One-Mile Radius
APNs 007-160-18 and 007-100-28, Willits, California

Site Name	Address	Elevation	Distance	Database Listing
Microphor Inc.	452 East Hill Road Willits, CA	Higher	Adjacent property	ENVIROSTOR[1], SLIC[2], HIST UST[3], HIST CORTESE[4], RCRA-SQG[5], ECHO[6], FINDS[7]

1. ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.
2. SLIC: Spills, Leaks, Investigation and Cleanup
3. HIST UST: Historical UST Registered Database
4. HIST CORTESE: combination of LUST, Integrated Waste Board and Department of Toxic Substances Control sites
5. RCRA-SQG: Resource Conservation and Recovery Act Small Quantity Generator
6. ECHO: Enforcement and Compliance History Information
7. FINDS: Facility Index System/Facility Registry System

The neighboring property to the west of the site is occupied by Microphor Incorporated. Based on documents available on the State of California Geotracker website, chlorinated hydrocarbons impacts to soil and groundwater are present at the property and active remediation at this property is ongoing. Assessment activities at the Microphor facility were initiated in April 2009 and included installation of monitoring and extraction wells for investigation and remediation. Despite the close proximity of the Microphor facility to the subject site, the documented chlorinated hydrocarbon impacts to soil and groundwater at the neighboring Microphor facility do not appear to have the potential to have adverse effects on soil, groundwater, or surface water at the subject site, given that the reported groundwater flow direction is to the west-northwest, away from the subject property, and towards Haehl Creek.

6.2.2 Sanborn Maps

Sanborn map coverage was not available for the subject site. A copy of the EDR Certified Sanborn Map report noting that coverage was not available for the site is included in Appendix 2.

6.2.3 Topographic Maps

SHN reviewed topographic maps with coverage of the subject site that were published in 1942, 1948, 1961, 1991, and 2012 (Appendix 2). A description of the features observed at the site and surrounding properties is presented in Table 4 (following page).

Table 4. Historical Topographic Maps
APNs 007-160-18 and 007-100-28, Willits, California

Year	USGS[1] Quadrangle	Minute	Description
1942	Willits	15	The subject site is shown as undeveloped. Haehl Creek is shown northwest and west of the site in its present day configuration. The Northwestern Pacific Railroad corridor is shown in its present day configuration along the western property boundary of the subject site. Baechtel and East Hill Roads are developed and shown in their present day configurations. Two square buildings, located on the east side of Haehl Creek, are shown on the property that abuts the site to the west. The central area of the City of Willits is shown as developed.
1948	Willits	15	The subject site and surrounding vicinity are generally similar to the 1942 topographic map.
1961	Willits	15	The subject site and surrounding vicinity are shown similar to the 1948 topographic map with the exception that one building is now shown on the property that abuts the subject site to the west. Generally, increased development in the central portion of the City of Willits, northwest of the site is visible.
1991	Willits	15	The subject site and surrounding vicinity are shown similar to the 1961 topographic map with the exception that three buildings, including a long, rectangular building along the eastern property line are depicted on the property that abuts the subject site to the west. Also, a small dirt road is shown north of East Hill Road, at the southeast corner of the property.
2012	Willits	7.5	Generally individual features are not detailed on this topographic map. However, the subject site and surrounding vicinity are shown similar to the 1991 topographic map; however, the railroad line is not shown.

1. USGS: U.S. Geological Survey

6.2.4 Business Directory

SHN reviewed the business directories for the City of Willits, California, which were provided by EDR (Appendix 2). According to the EDR's digital archive, there is no listing for the site address. Microphor is listed as occupying the property that abuts the site to the west (452 East Hill Road) in the 1977 through 2014 in the Polk City Directories on file in the EDR Digital Archive (except in the 2000 directory, when Westinghouse A Brake Tech Corp is listed at 452 East Hill Road).

6.2.5 Aerial Photographs

SHN reviewed aerial photos of the subject site taken during the past approximately 76 years (Appendix 2), which were provided by EDR. A description of the features observed at the site and surrounding properties is presented in Table 5 (following pages).

Table 5. Historical Aerial Photographs
APNs 007-160-18 and 007-100-28, Willits, California

Year	Source	Scale	Description
1941	**USGS[1]**	**1" = 500'**	The subject site boundary as shown by EDR is not accurate in this photograph. The subject site is undeveloped and vegetated. Haehl Creek is visible west of the site and appears to be in a location similar to its present day configuration. A riparian corridor, as seen by mature trees, is present along the two creeks located on this subject site. The two creeks appear to be located similar to their present day configurations. East Hill Road is shown as developed and forms the southern property boundary of the subject site. The properties that abut the site to the north and northeast are vegetated/undeveloped, and appear to be used for agriculture. The property that abuts the site to the south, along East Hill Road is vegetated/undeveloped and appears to be used for agriculture. The properties that abut the site to the east and southeast appear to be orchards. The former Northwestern Pacific Railroad corridor is visible immediately west of the site, forming its western property boundary. An orchard and two buildings are visible on the parcels located west of the railroad corridor. Baechtel Road is visible and is in its present day configuration.
1952	**USGS**	**1"= 500'**	The site and surrounding vicinity are similar to the 1941 photograph with the exception that the orchards located east and southeast of the site appear sparser, and two large buildings and a residence are west of the railroad line.
1964	**USGS**	**1"= 500'**	The site and surrounding vicinity are similar to the 1952 photograph with the exception that a dirt path is visible traversing the site from the northwest corner to the south boundary of the site at East Hill Road. The orchards located east and southeast of the site do not appear to be maintained.
1976	**USGS**	**1"= 500'**	The site is similar to the 1964 photograph. A rectangular building is visible along the railroad corridor on the property that abuts the site to the west. The orchard on the property that abuts the site to the east is no longer visible. A residential subdivision is visible southwest of the site, along Haehl Creek.
1983	**USGS**	**1"= 500'**	The site and surrounding vicinity are similar to the 1976 photograph. An additional building is visible on the property that abuts the site to the west.
1993	**USGS/DOQQ[2]**	**1"= 500'**	The site is generally similar to the 1983 photograph. Increased development of the surrounding vicinity west of the site is visible. A residential subdivision is visible northwest of the site, along Haehl Creek. The orchard southeast of the site is no longer visible.

Table 5. Historical Aerial Photographs
APNs 007-160-18 and 007-100-28, Willits, California

Year	Source	Scale	Description
2006	**USDA[3]/NAIP[4]**	**1"= 500'**	The site and surrounding vicinity is generally similar to the 1993 photograph. The property that abuts the site to the south, across East Hill Road is developed with a building located in the northern portion of the property.
2010	**USDA/NAIP**	**1"= 500'**	This photograph is generally similar to the 2006 photograph. Haehl Creek Drive, with a residential subdivision located at its southern terminus is visible.

1. USGS: United States Geological Survey
2. DOQQ: digital orthophoto quarter quadrangle
3. USDA: United States Department of Agriculture
4. NAIP: National Agriculture Imagery Program

6.3 Results of Regulatory Agency Contacts

6.3.1 Mendocino County Division of Environmental Health

According to MCDEH staff, there was no information on file for the subject site.

6.3.2 City of Willits Building, Planning, and Engineering Departments

According to the City of Willits Building, Planning, and Engineering Departments, there was no information on file for the subject site.

6.3.3 Little Lake Valley Fire District

SHN contacted the Little Lake Valley Fire District requesting information for the subject site. According to fire department staff, the Little Lake Fire District files would be reviewed for the subject site and would be contacted with the findings. As of the date of this Phase I ESA, this request is outstanding and it is not known if there is information regarding the subject site on file with the Little Lake Valley Fire District.

6.4 Results of Personnel Interviews/Site Records Review

6.4.1 User Questionnaire

Ms. Stephanie Coleman, DGS RESD Senior Environmental Planner, completed a "Phase I ESA Questionnaire," as part of the interview process. These questions were developed to address potential areas of concern from a hazardous materials perspective that may be present on the subject site, and/or known RECs as defined in ASTM Standard E1527-13. A copy of the user questionnaire completed by Ms. Coleman is included in Appendix 5.

Ms. Coleman reported that they were not aware of any environmental cleanup lien or government notification relating to past or recurrent violations with respect to the site. To the best of Ms. Coleman's

knowledge, there is no past or pending lawsuit concerning a release or threatened release of any hazardous substance or petroleum products involving the site by any owner or occupant of the site.

6.4.2 Owner Questionnaire

Mr. James Mitchell, Owner, Bemcore Enterprises, completed a Phase I ESA questionnaire. A copy of the owner questionnaire completed by Mr. Mitchell is included in Appendix 5.

Mr. Mitchell reported that he was not aware of an environmental cleanup lien or government notification relating to past or recurrent violations with respect to the site. To the best of Mr. Mitchell's knowledge, there is no past or pending lawsuit concerning a release or threatened release of any hazardous substance or petroleum products involving the site by any owner or occupant of the site.

6.4.3 Site Records Review

The results of the regulatory agency file reviews for the subject property and adjacent properties are discussed in Section 6.3 of this report.

6.5 Potential for Vapor Intrusion

There is no building located at the site, so there is low potential of vapor intrusion. Additionally, the presence of petroleum hydrocarbons, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs), compounds which could impact indoor air quality, were not identified on the property given its history as undeveloped pasture. Therefore, if buildings are sited on the property, the potential for vapor intrusion is low.

6.6 Synopsis of Results of Previous Environmental Investigations–EDR Database

Using the ASTM Standard Practice E1527-13 recommended search radii, SHN reviewed the EDR database, which tracks sites with known hazardous materials and hazardous material releases (Appendix 4).

EDR did not identify any potential or confirmed state or federal "Superfund" site located on or immediately adjacent to the subject property during its review of the EPA's CERCLIS and NPL databases. The subject site does not appear on the EPA's Emergency Response Notification System (ERNS) database, or contain any business or facility that is listed as a Resource Conservation and Recovery Act (RCRA) large quantity generator.

SHN reviewed databases regarding hazardous materials contamination that are maintained by the following agencies:

- United States Environmental Protection Agency (EPA)
- Federal National Priority List (NPL) sites
- Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites

- Federal Resource Conservation and Recovery Act (RCRA) sites
- Federal Emergency Response Notification System (ERNS) sites
- State and tribal – equivalent CERCLIS; Confirmed Release List and Inventory (CRL); and Environmental Cleanup Site Information System (ECSI)
- State and tribal landfill and/or solid waste disposal site lists; Solid Waste Facilities database (SWF/LF)
- State and tribal leaking storage tank lists: Leaking Underground Storage Tank Database (LUST)
- State and tribal registered storage tanks lists; Underground Storage Tank database (UST)
- Federal listing of FEMA-owned USTs (FEMA UST)
- Many other lists, such as, Brownfield sites, open dump inventories, illegal dump sites, historical and old closed solid waste disposal sites, clandestine drug labs, federal CERCLA and local lien information, local Land Use Control Information (LUCIS), Hazardous Materials Information Reporting Systems (HMRIS), and spill data regarding oil and hazardous materials reported to the Environmental Response Program

7.0 Discussion

This section summarizes the findings in this assessment and identifies RECs. A REC as defined in ASTM Standard Practice E1527-13, means:

> *…the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.*

A controlled REC is defined as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (as evidenced by issuing a no further action letter), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. A controlled REC shall be listed as an REC.

Based upon SHN's review of the available information and site reconnaissance for the subject site, no controlled REC was identified during the completion of this Phase I ESA.

A historical REC is defined as a past release of any hazardous substance or petroleum product that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the property to any required controls, such as, property use restrictions, activity and use limitations, institutional controls, and/or engineering controls. There is no known historical REC associated with the subject site.

No potential or confirmed state or federal Superfund site is located on or immediately adjacent to the subject site. However, several agency-listed sites have experienced unauthorized hazardous materials

releases; these sites are situated within ¼ mile of the subject site in presumed upgradient locations. To date, none of these agency-listed sites is known to have impacted the subject site from a hazardous materials perspective.

8.0 Conclusions

SHN has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard Practice E1527-13 for the subject site located at APNs 007-160-18 and 007-100-28. No REC was found on the subject site. Historical vegetation abatement activities for the railroad corridor are not known, although the railroad often used arsenic or other herbicides to control vegetation growth in the right-of-way. No stressed vegetation was observed along the railroad corridor, so we consider this to be a *de minimus* condition. Any exceptions to, or deletions from this practice are described in Section 10 of this report.

9.0 Recommendations—Recognized Environmental Conditions

As part of our detailed investigation of the subject site, SHN encountered no evidence of past land use that may have generated or caused the release of regulated or hazardous materials; as defined in ASTM Standard E1527-13.

10.0 Limitations

Information contained in this ESA was obtained in part from EDR (Appendix 4). SHN derived the data in this report primarily from visual inspections, examination of records in the public domain, and interviews with selected individuals with information about the site.

Except as otherwise stated in this report, SHN has not attempted to verify the accuracy or completeness of any such information. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration at the property; analysis of the data; and re-evaluation of the findings, observations, and conclusions expressed in this report.

Because of the limitations stated above, the findings, observations, and conclusions expressed by SHN in this report are not, and should not be considered an opinion concerning the compliance of any past or present owner or operator of the property with any federal, state, or local laws or regulations. No warranty or guarantee, express or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Such data, findings, observations, and conclusions are based solely on site conditions in existence at the time of the investigation, and are not representative of areas of the property that were not readily accessible or observable.

No ESA can wholly eliminate uncertainty regarding the potential for an REC in connection with a property. Performance of this practice is intended to reduce, but not eliminate uncertainty regarding the potential for RECs in connection with a property; this practice recognizes reasonable limits of time and cost.

The ASTM Standard E1527-13 guidance document states that one of the objectives of a Phase I ESA is to identify the subject property's usage back to when the property was first developed, or back to 1940

(whichever is earlier). No significant data gap has been identified during the preparation of this Phase I ESA; however, minor data gaps do exist:

- Aerial photography of the site prior to 1940 was not available. However, aerial photography from 1941 to present was reviewed during the completion of this Phase I ESA.
- Some of the aerial photos that were provided for review were of poor quality and taken more than 10 years apart.
- The interior of the shed in the southeastern portion of the property was not accessible during the April 2018 site reconnaissance. However, based on discussion with the current property owner, James Mitchell, the shed is currently empty and was formerly used as a horse feeder. Mr. Mitchell has not used this shed during his ownership of the subject site.

These data gaps do not appear significant, because a continuous site history has been established since the early 1940s.

The preparation of this Phase I ESA did not deviate significantly from the guidelines presented in ASTM E1527-13. SHN was able to delineate a continuous site history dating back to the early 1940s.

11.0 References

11.1 Published References

ASTM–International. (2013). "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," *ASTM Standards on Environmental Site Assessments for Commercial Real Estate, Third Edition: E1527-13*. Philadelphia, PA:ASTM.

Environmental Data Resources. (April 9, 2018). "Certified Sanborn Map Report." Inquiry number 5250926.3.

---. (April 10, 2018). "The EDR Aerial Photo Decade Package." Inquiry number 5250926.9.

---. (April 9, 2018). "The EDR-City Directory Image Report." Inquiry number 5250926.5.

---. (April 9, 2018). "The EDR Radius Map Report™ with Geocheck®." Inquiry number 5250926.2s.

---. (April 9, 2018). "EDR Historical Topo Map Report." Inquiry number 5250926.4.

Esri and others. (March 2015). Aerial Photograph of Willits, CA, accessed April and May 2018.. NR: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

Geotracker website. (Accessed April and May 2018). Various available files.

Jennings, C.W. and R.G. Strand. (1960). "Geologic Map of California, Willits Sheet, Scale 1:250,000." Sacramento, CA:CDMG.

U.S. Geological Survey. (2012). Topographic Map of Willits, CA. NR:USGS.

11.2 Written and Verbal Communications

Coleman, Stephanie. (May 2018). DGS RESD. Completed the Phase I ESA Questionnaire.

Mitchell, James. (April 2018). Bemcore Enterprises. Completed the Phase I ESA Questionnaire.

12.0 Signatures of Environmental Professionals

Anna Gower — **Date**
Environmental Professional, Compliance Specialist

Roland Rueber, PG — **Date** 5-14-18
Project Manager

13.0 Statement of Qualifications of Environmental Professionals

SHN's project team included Anna Gower and Roland Rueber. Ms. Gower has worked for SHN for less than a year and has been conducting Phase 1 ESAs for more than 17 years. Mr. Roland Rueber is a Registered Geologist in the State of California, and has worked for SHN for more than 18 years; he provided the quality assurance and quality control for this site assessment.

We declare that, to the best of our professional knowledge and belief, we meet the definition of an Environmental Professional as defined in §312.10 of 40 Code of Federal Regulations (CFR) 312. We have the specific qualifications based on education, training, and experience to assess a property of this nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Site Photographs 1

Photograph No. 1: Facing north; US Highway 101 bypass to the east/northeast. Access to the property from East Hill Road.

Photograph No. 2: Area of standing water and location of household-like waste. Southeastern portion of the site.

Photograph No. 3: Southern portion of the site facing south toward the medical offices on the southern side of East Hill Road.

Photograph No. 4: Facing northeast; PG&E overhead electric line.

Photograph No. 5: Central vegetated area at the site; facing west.

Photograph No. 6: Eastern property boundary facing south.

Photograph No. 7: Northern portion of the site along the northernmost creek on the property.

Photograph No. 8: Northern portion of the property facing southwest toward Microphor facility to the west.

Photograph No. 9: PG&E easement and southern portion of the site. Facing east from the railroad corridor right-of-way.

Photograph No. 10: East Hill Road from the southern property boundary. Facing west.

Photograph No. 11: Horse feeder shed. Southeastern portion of the site.

Historical Maps, Aerial Photograph, and Other Data

2

East Hill Road

East Hill Road

Willits, CA 95490

Inquiry Number: 5250926.4

April 09, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

04/09/18

Site Name:

East Hill Road
East Hill Road
Willits, CA 95490
EDR Inquiry # 5250926.4

Client Name:

SHN Consulting Engineers
812 West Wabash Avenue
Eureka, CA 95501
Contact: Diana Ward

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by SHN Consulting Engineers were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 418043
Project: DGS Willits Phase I ESA

Coordinates:

Latitude:	39.394349 39° 23' 40" North
Longitude:	-123.339012 -123° 20' 20" West
UTM Zone:	Zone 10 North
UTM X Meters:	470807.97
UTM Y Meters:	4360594.21
Elevation:	1388.00' above sea level

Maps Provided:

2012
1991
1961
1948
1942

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

Laughlin Range
2012
7.5-minute, 24000

Willits
2012
7.5-minute, 24000

1991 Source Sheets

Laughlin Range
1991
7.5-minute, 24000
Aerial Photo Revised 1985

Willits
1991
7.5-minute, 24000
Aerial Photo Revised 1985

1961 Source Sheets

Willits
1961
15-minute, 62500
Aerial Photo Revised 1957

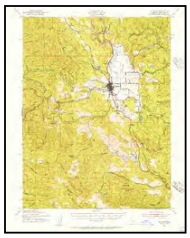
1948 Source Sheets

WILLITS
1948
15-minute, 50000

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

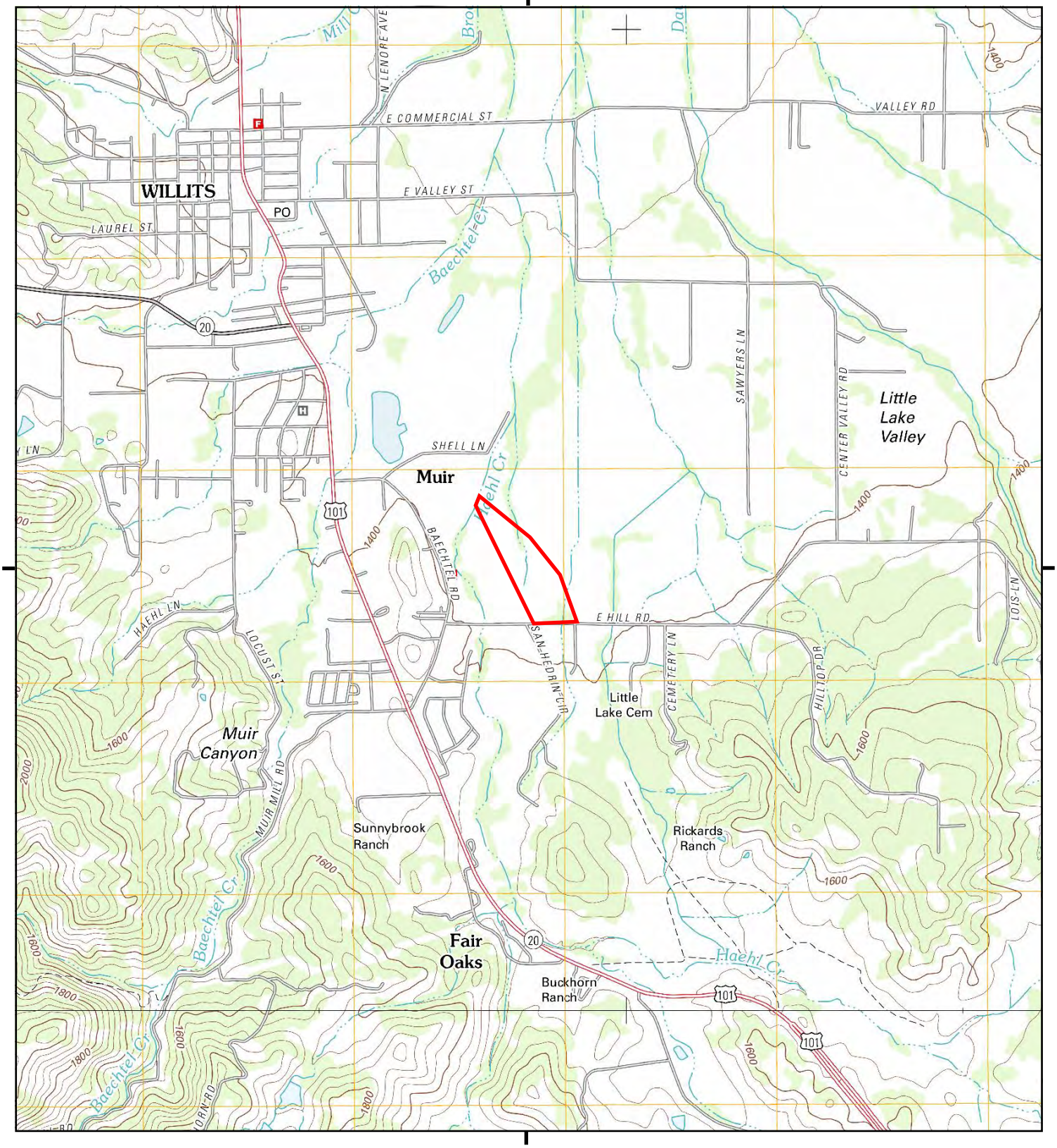
1942 Source Sheets



Willits
1942
15-minute, 62500
Aerial Photo Revised 1942

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

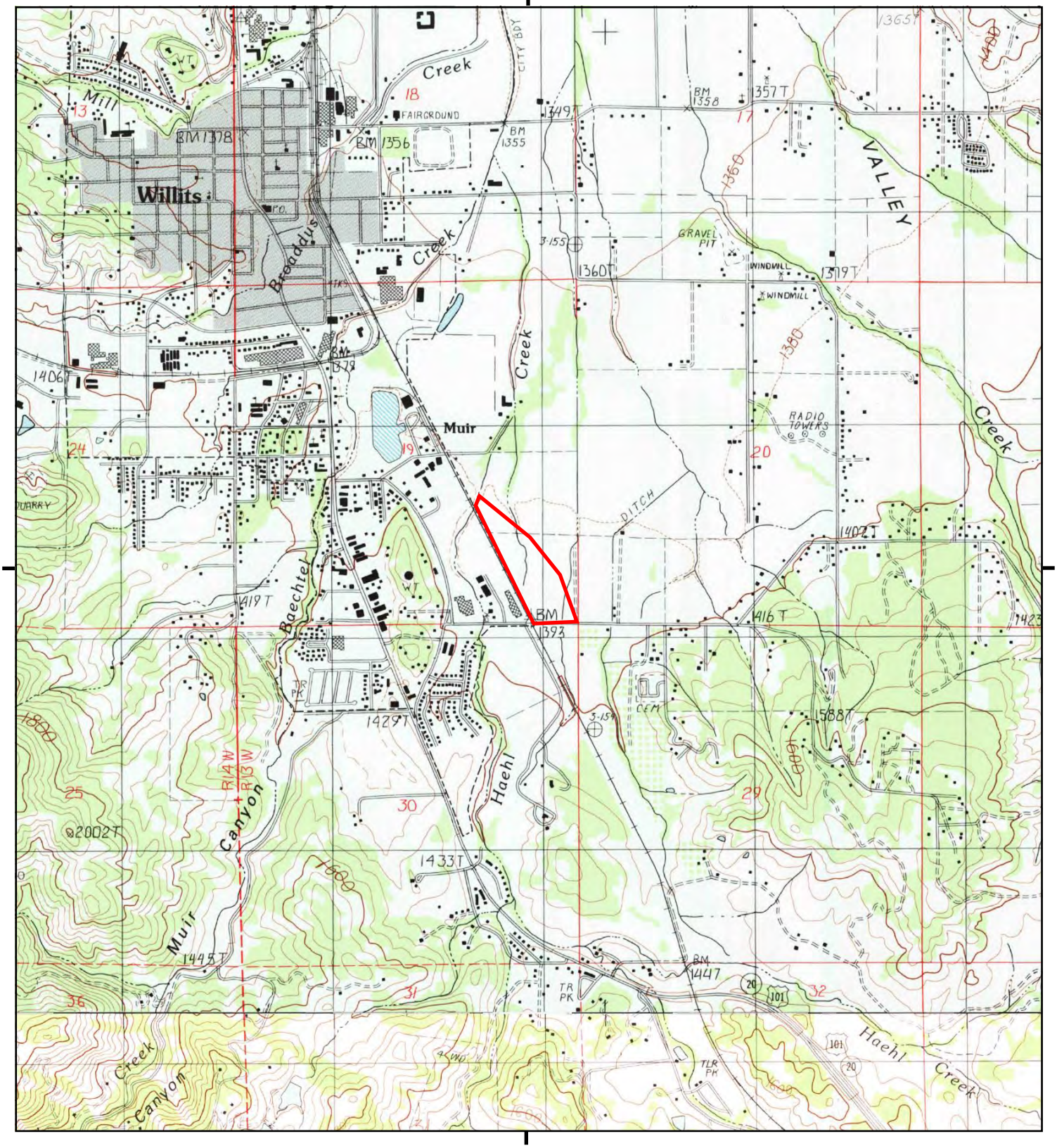
TP, Willits, 2012, 7.5-minute
S, Laughlin Range, 2012, 7.5-minute

SITE NAME: East Hill Road
ADDRESS: East Hill Road
Willits, CA 95490
CLIENT: SHN Consulting Engineers

N

Historical Topo Map

1991



This report includes information from the following map sheet(s).

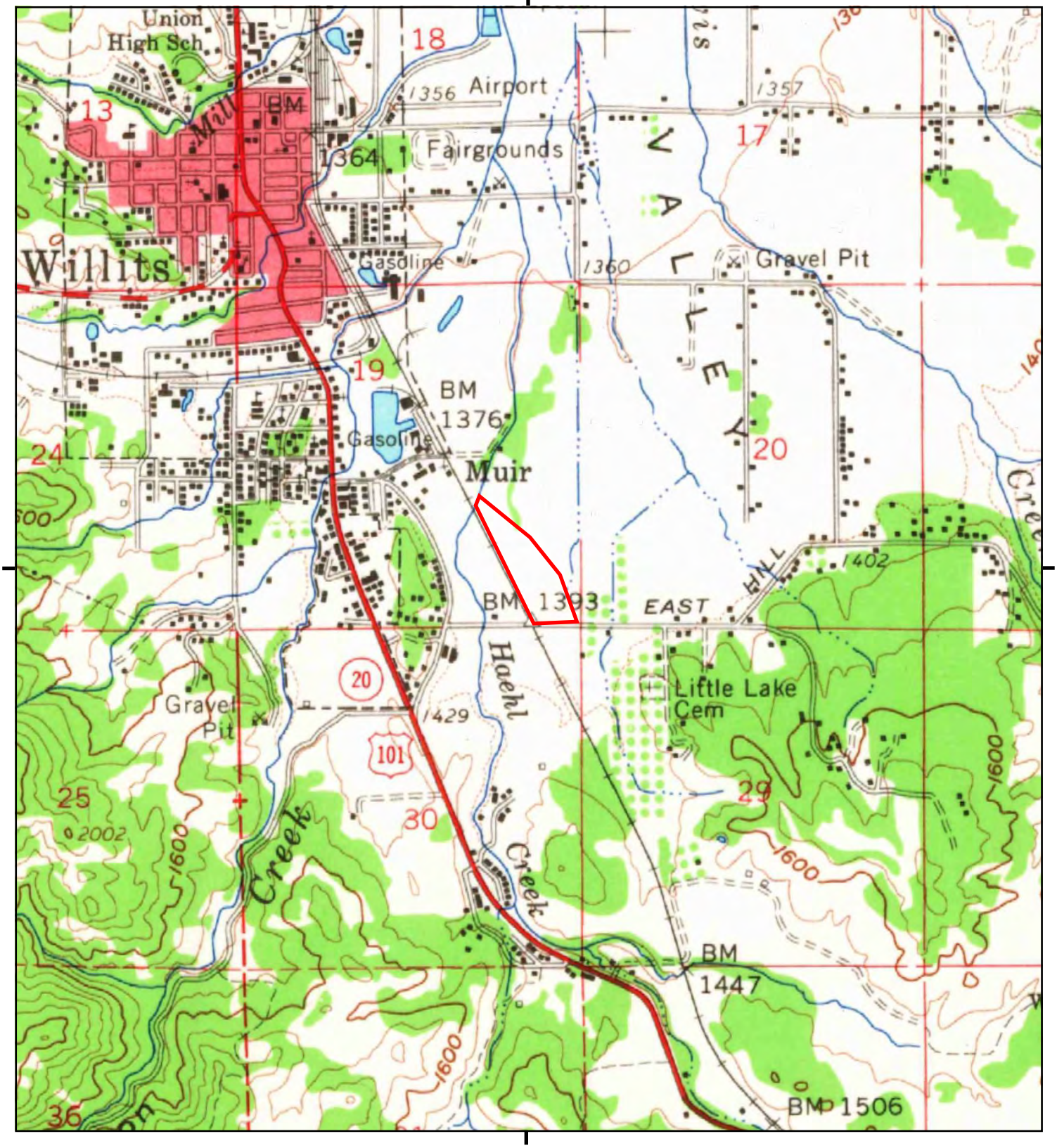
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Willits, 1991, 7.5-minute
S, Laughlin Range, 1991, 7.5-minute

SITE NAME: East Hill Road
ADDRESS: East Hill Road
Willits, CA 95490
CLIENT: SHN Consulting Engineers

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

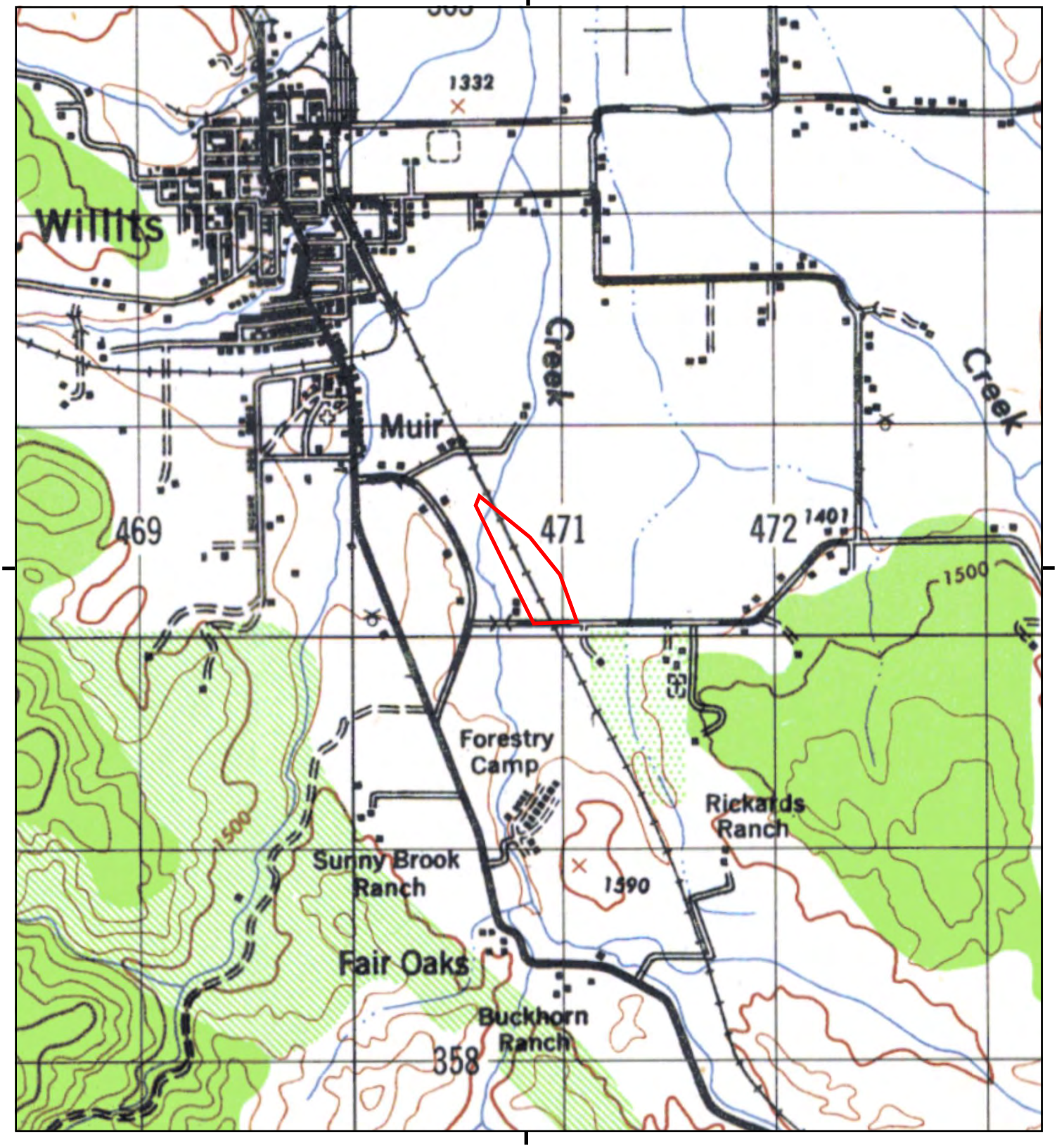
TP, Willits, 1961, 15-minute

SITE NAME: East Hill Road
ADDRESS: East Hill Road
Willits, CA 95490
CLIENT: SHN Consulting Engineers

N

Historical Topo Map

1948



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

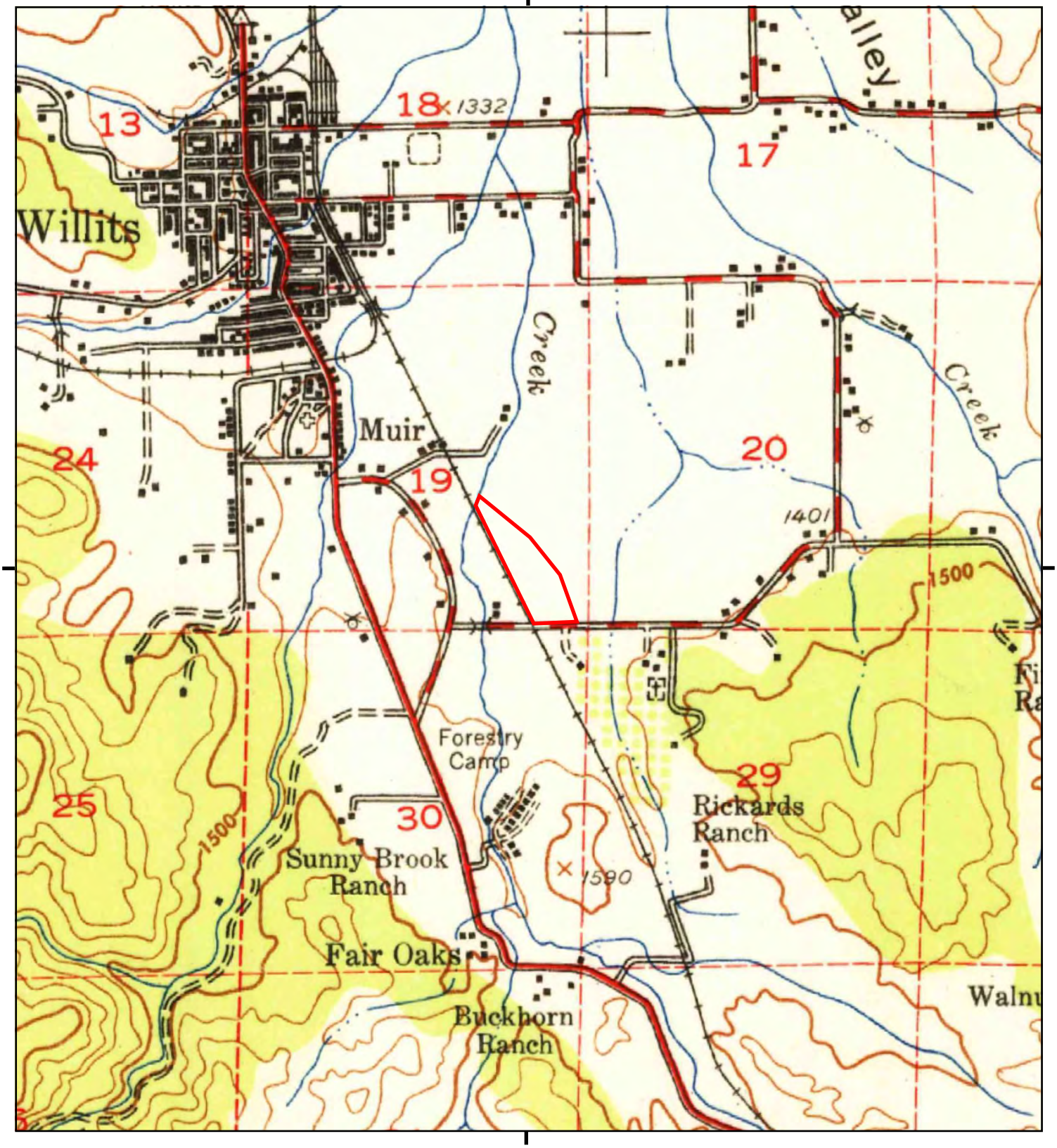
TP, WILLITS, 1948, 15-minute

SITE NAME: East Hill Road
ADDRESS: East Hill Road
Willits, CA 95490
CLIENT: SHN Consulting Engineers

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Willits, 1942, 15-minute

SITE NAME: East Hill Road
ADDRESS: East Hill Road
Willits, CA 95490
CLIENT: SHN Consulting Engineers

N

East Hill Road

East Hill Road

Willits, CA 95490

Inquiry Number: 5250926.9

April 10, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

04/10/18

Site Name:

East Hill Road
East Hill Road
Willits, CA 95490
EDR Inquiry # 5250926.9

Client Name:

SHN Consulting Engineers
812 West Wabash Avenue
Eureka, CA 95501
Contact: Diana Ward

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

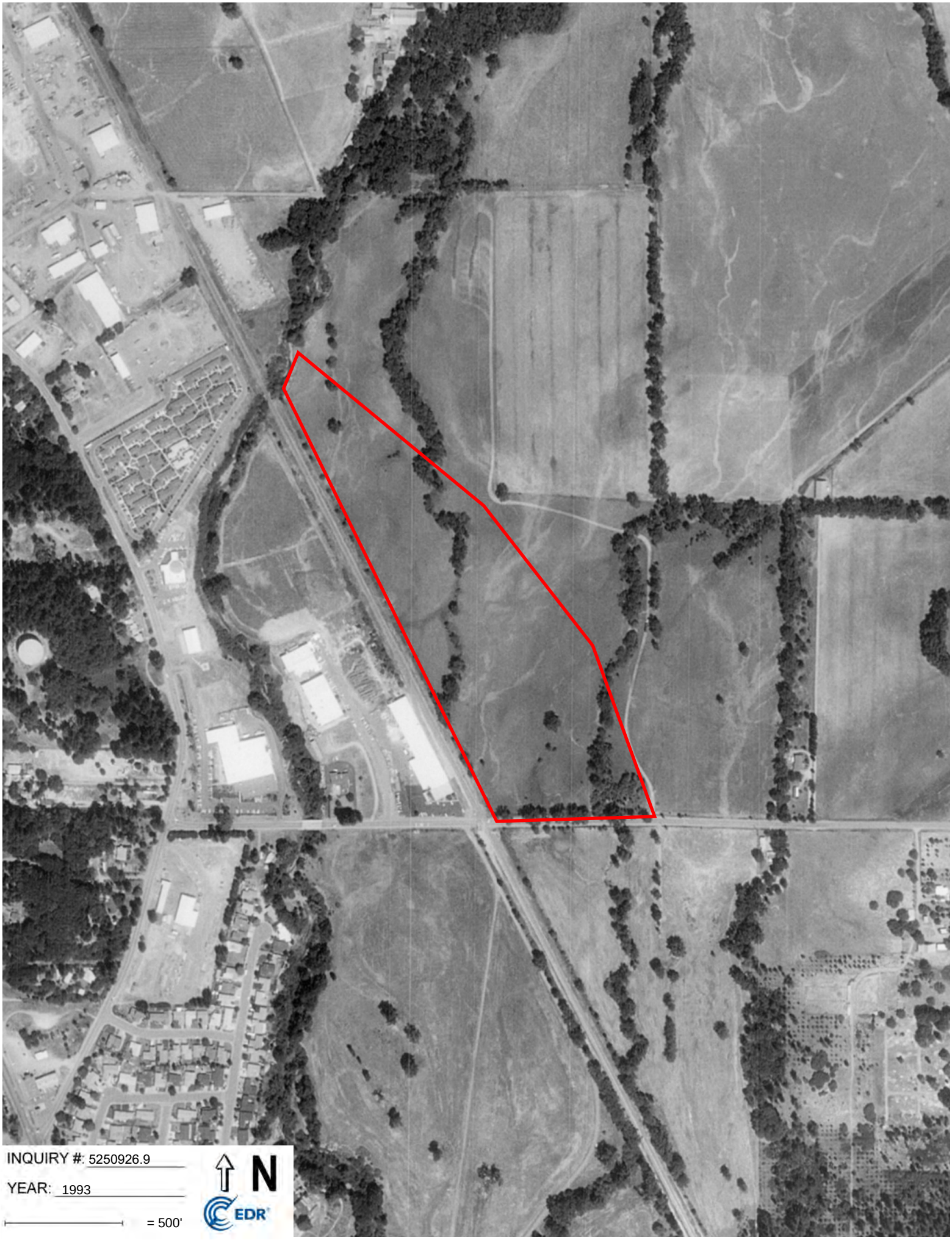
Search Results:

Year	*Scale*	*Details*	*Source*
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1993	1"=500'	Acquisition Date: July 12, 1993	USGS/DOQQ
1983	1"=500'	Flight Date: August 17, 1983	USGS
1976	1"=500'	Flight Date: January 01, 1976	USGS
1964	1"=500'	Flight Date: January 01, 1964	USGS
1952	1"=500'	Flight Date: July 14, 1952	USGS
1941	1"=500'	Flight Date: October 07, 1941	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.


INQUIRY #: 5250926.9
YEAR: 2010
= 500'
N
EDR


INQUIRY #: 5250926.9
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 5250926.9
YEAR: 1993
= 500'
N
EDR


INQUIRY #: 5250926.9
YEAR: 1983
= 500'
N
EDR

INQUIRY #: 5250926.9

YEAR: 1976

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.

INQUIRY #: 5250926.9

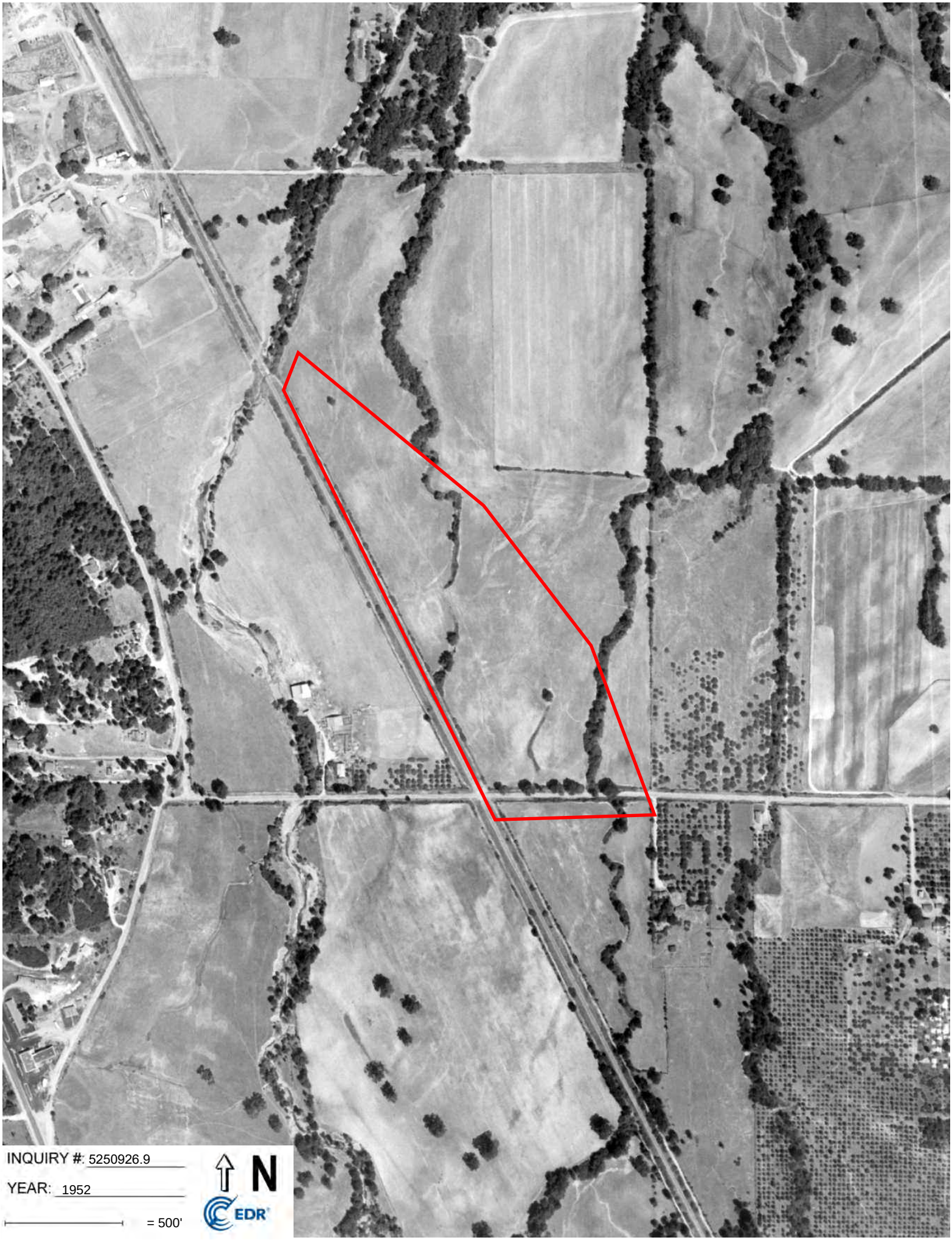
YEAR: 1964

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.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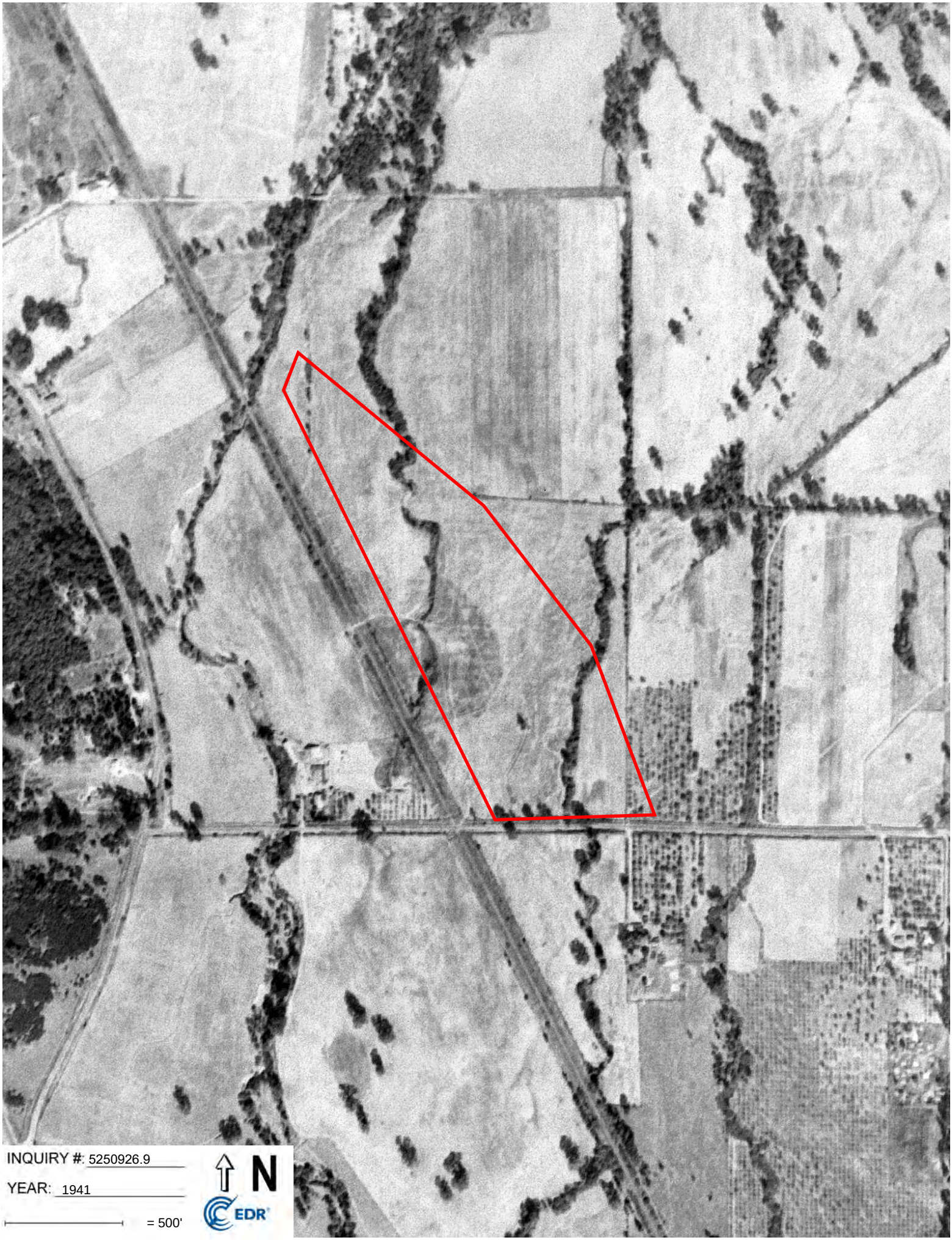
YEAR: 1952
= 500'
N
EDR


INQUIRY #: 5250926.9
YEAR: 1941
= 500'
N
EDR

East Hill Road
East Hill Road
Willits, CA 95490

Inquiry Number: 5250926.5
April 09, 2018

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by
infoUSA®

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1987	☑	☑	EDR Digital Archive
1982	☑	☑	EDR Digital Archive
1977	☑	☑	EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

East Hill Road
Willits, CA 95490

Year	*CD Image*	*Source*
E HILL RD		
2014	pg A1	EDR Digital Archive
2010	pg A3	EDR Digital Archive
2005	pg A5	EDR Digital Archive
2000	pg A7	EDR Digital Archive
1995	pg A9	EDR Digital Archive
1992	pg A12	EDR Digital Archive
1987	pg A14	EDR Digital Archive
1982	pg A16	EDR Digital Archive
1977	pg A18	EDR Digital Archive

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*
E HL RD		
1995	pg. A10	EDR Digital Archive
N 101		
2014	pg. A2	EDR Digital Archive
2010	pg. A4	EDR Digital Archive
2005	pg. A6	EDR Digital Archive
2000	pg. A8	EDR Digital Archive
1995	pg. A11	EDR Digital Archive
1992	pg. A13	EDR Digital Archive
1987	pg. A15	EDR Digital Archive
1982	pg. A17	EDR Digital Archive
1977	pg. A19	EDR Digital Archive

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 2014

300	MENDO MULCHERS
301	CAVANAUGH, RODERICK C
400	KELLY, ED R
401	OCCUPANT UNKNOWN,
431	RULTER, WILLIAM L
441	OCCUPANT UNKNOWN,
451	LOVELL, ALICIA
452	MICROPHOR INC
461	LOVELL ENTERPRISES INC
	LOVELL, DAVID R
750	PIRES, JONATHAN J
751	OCCUPANT UNKNOWN,
801	FLOWER FARM
	HARRISON, JESSE D
	JULIUS, JOHN L
	MANNING, LAUREL
	MORRIS, LAUREL A
	WEAR, AARON J
881	KYLE, KAYLYN M
	OWEN GARY LANDSCAPE CNSTR
885	OCCUPANT UNKNOWN,
887	HOSFORD DIANE J
	HOSFORD, PAUL R
900	UNDERHILL, MIKE H
901	VOKOUN, CAROL J
911	BROWN, JASON E
913	OLSON, STEVEN F
915	HULSE-STEPHENS SVCS
	HULSE-STEPHENS, DAVID L
955	SAMS C W
1180	EAST HILL HOUSE HERBALS
1200	EAST HILL VETERINARY CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 2014

19612 WILLITS ANIMAL HOSPITAL
19840 SUMMIT SERVICES & SUPPLY INC
19922 CHILDHOOD LIVING
19941 MIHELCIC DANIEL M
20211 PRICE MUSIC TUTORING
20518 SUNNYBROOK RANCH
20690 WILLITS CHURCH OF NAZARENE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 2010

300	MENDO MULCHERS
301	CAVANAUGH, RODERICK C
400	KELLY, ED R
401	OCCUPANT UNKNOWN,
431	RULTER, WILLIAM L
441	OCCUPANT UNKNOWN,
451	HARRAH, JAYNE A
452	MICROPHOR INC
	NED W PARKER CONSTRUCTION
461	LOVELL ENTERPRISES INC
	LOVELL, DAVID R
750	NYHOLM, GEORGE W
751	HEIKEN, ERIK K
801	FLOWER FARM
	HARRISON, JESSE D
	JULIUS, JOHN L
	MANNING, MARILYN J
	MORRIS, LAUREL A
881	OWEN GARY LANDSCAPE CNSTR
	OWEN, GARY W
885	OCCUPANT UNKNOWN,
887	HOSFORD, PAUL R
900	UNDERHILL, MIKE H
901	VOKOUN, CAROL J
911	BROWN, DUANE W
913	GRIGGS, MICHAEL A
915	HULSE-STEPHENS SVCS
	HULSE-STEPHENS, DAVID L
1001	FREE & ACCEPTED MASONS CAL
1180	EAST HILL HOUSE HERBALS
1200	EAST HILL VETERINARY CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 2010

19612 WILLITS ANIMAL HOSPITAL
19873 OCHOAS YARDS PLUS
19922 CHILDHOOD LIVING
20029 LIL STINKER ANTIQUES
20211 PRICE MUSIC TUTORING
20690 WILLITS CHURCH OF NAZARENE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 2005

300	ADVANCED MFG & DEV INC
	RAMOS TIBAULT CORP
301	CAVANAUGH, RODERICK C
400	KELLY, ED R
431	RUTLER, WILLIAM
441	OCCUPANT UNKNOWN,
451	HARRAH, JAYNE A
452	MICROPHOR
461	LOVELL ENTERPRISES INC
	LOVELL, DAVID R
750	NYHOLM, GEORGE W
751	HEIKEN, ERIK K
801	FLOWER FARM
	HEYES, MARY
	JULIUS, JOHN L
	MANNING, ROBERT L
881	OWEN, GARY W
885	OCCUPANT UNKNOWN,
887	HOSFORD, PAUL R
900	UNDERHILL, MIKE H
911	BROWN, DUANE W
913	GRIGGS, MICHAEL A
915	HULSE-STEPHENS SVCS
	HULSESTEPHENS, DAVID L
1180	EAST HILL HOUSE HERBALS
1200	EAST HILL VETERINARY CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 2005

19612 WILLITS ANIMAL HOSPITAL
19873 OCHOAS YARDS PLUS
19901 PETE MIHELCIC CONSTRUCTION
19922 BRAVO ELENA
20029 LIL STINKER ANTIQUES
20690 WILLITS CHURCH OF NAZARENE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 2000

300	ADVANCED MFG & DEV INC
	OCCUPANT UNKNOWN,
301	BROOKS, THOMAS T
400	KELLY ED TRUCKING
	KELLY, EDWARD
431	KNICK, N
441	HARRAH, C
	LOVELL, DAVID
451	HARRAH, J
452	WESTINGHUSE A BRAKE TECH CORP
801	HAYES, MARY
881	OWEN, GARY
885	OCCUPANT UNKNOWN,
887	OCCUPANT UNKNOWN,
900	UNDERHILL, MIKE
901	VOKOUN, JOAN
911	BROWN, DUANE
913	DUNCAN, WAYNE
915	HULSE-STEPHENS SVCS
	OCCUPANT UNKNOWN,
1180	EAST HILL HOUSE HERBALS
1200	EAST HILL VETERINARIAN CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 2000

19612 JACOBS FRED DVM
20029 LIL STINKER ANTIQUES
20690 CHURCH OF NAZARENE WILLITS CA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 1995

300	ADVANCED MANUFACTURING & DEV
431	KNICK, CLYDE C
441	HARRAH, C
451	HARRAH, J
452	MICROPHOR INC
801	HAYES, EDMOND
881	OWEN, GARY
887	WOODRUFF, RONALD D
900	UNDERHILL, MIKE
901	VOKOUN, JOAN
911	NILES, ANTHONY J
913	OCCUPANT UNKNOWNN
915	HULSE-STEPHENS DAVID
	HULSESTEPHENS, DAVID
1200	EAST HILL VETERINARIAN CLINIC
	GRASSE FRANK J DVM

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

E HL RD 1995

301 STEWART, LILLIAN

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 1995

19612 WILLITS ANIMAL HOSPITAL
19996 COUNTRY GIRL
20029 LIL STINKER ANTIQUES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 1992

300	RAMOS-THIBAULT CORPORATION
301	STEWART, JOHN E
431	KNICK, CLYDE C
441	HARRAH, C
451	HARRAH, R E
452	MICROPHOR INC
750	NYHOLM, GEORGE
801	HAYES, EDMOND
881	OWEN, GARY
887	WOODRUFF, RONALD D
900	HIGGINS, MARK
901	VOKOUN, J J
915	HULSE-STEPHENS DAVID
	HULSESTEPHENS, DAVID
955	HIGGINS TRUCKING
1100	RM RANCHES
1200	EAST HILL VETERINARIAN CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 1992

19925 ANDREWS ELECTRIC
DUKES TYPING SERVICE
19996 COUNTRY GIRL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 1987

300	RAMOS-THIBAULT CORPORATION
452	MICROPHOR INC
955	HIGGINS TRUCKING

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 1987

19612 WILLITS ANIMAL HOSPITAL
19975 COLONIAL MOTEL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 1982

430 MICROPHOR INC
452 MICROPHOR INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 1982

19612 WILLITS ANIMAL HOSPITAL
19975 COLONIAL MOTEL

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

E HILL RD 1977

430	CENTER MACHINE CO INC
432	HARRAH INDUSTRIES INC
452	HARRAH INDUSTRIES INC
	MICROPHOR INC
1200	EAST HILL VETERINARIAN CLINIC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

N 101 1977

19612 WILLITS ANIMAL HOSPITAL
19975 COLONIAL MOTEL

East Hill Road

East Hill Road

Willits, CA 95490

Inquiry Number: 5250926.3

April 09, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

04/09/18

Site Name:

East Hill Road
East Hill Road
Willits, CA 95490
EDR Inquiry # 5250926.3

Client Name:

SHN Consulting Engineers
812 West Wabash Avenue
Eureka, CA 95501
Contact: Diana Ward

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by SHN Consulting Engineers were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # FDB2-4D87-B0BA

PO # 418043

Project DGS Willits Phase I ESA

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: FDB2-4D87-B0BA

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Preliminary Title Report 3

Redwood Empire Title Company of Mendocino County

405 S. Orchard Avenue, P. O. Box 238
Ukiah, CA 95482
Phone: (707)462-8666 • Fax: (707)462-5010

Our No.: **20172514AP**
Your No.:
Seller: **Bemcore Enterprises Inc.**
Buyer:

When replying Please Contact:
ESCROW OFFICER: **Adriane Pardini**
apardini@redwoodtitle.com

PRELIMINARY REPORT

Property Address: **, CA**

In response to the above referenced application for a policy of title insurance, **Redwood Empire Title Company of Mendocino County** hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Exhibit A attached. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated as of November 9, 2017 at 07:30 AM.

John Baron
Chief Title Officer

jbaron@redwoodtitle.com

The form of policy of title insurance contemplated by this report is:

CLTA Standard 1990 Owners Policy
Underwritten by Old Republic National Title Insurance Company

SCHEDULE A

1. The estate or interest in the land hereinafter described or referred to covered by this Report is:

   a Fee

2. Title to said estate or interest at the date hereof is vested in:

   Margie Lee Handley, as Trustee of that certain revocable declaration of trust dated April 29, 1992 as to an undivided 1/2 interest and Bemcore Enterprises Inc., as to an undivided 1/2 interest

3. The land referred to in this report is situated in the State of California, County of Mendocino and is described as follows:

   All that certain real property situated in the City of Willits, County of Mendocino, State of California, identified as Parcel One as shown on the map attached as Exhibit B to the Boundary Line Adjustment Deed recorded April 17, 2006 as 2006-07362, Mendocino County Records, and more particularly described as follows:

   Commencing at the section comer to Sections 19, 20, 29 and 30, in Township 18 North, Range 13 West, Mount Diablo Meridian and running thence North along the Section line between Sections 19 and 20, twenty chains; thence West, parallel with the Southern line of said Section 19, 20.26 chains more or less, to the East line of the right of way of the California Northwestern Railroad and the POINT OF BEGINNING of this description; thence along said East line of said right of way Northwesterly, 531.3 feet (Record: 8.05 chains) more or less to an intersection with the East bank of Haehl Creek; thence leaving said right of way and along said East bank North 23° 57' East, 177 feet more or less to the southwesterly line of the proposed State Highway 101 right of way being a strip of land 100 meters in width; thence leaving said East bank and along said right of way from a tangent that bears South 42° 42' 31" East through the arc of a curve to the left with a radius of 3117.23 feet, a central angle of 7° 19' 1 0" and an arc length of 398 feet; thence South 50° 01' 41" East, 407.51 feet; thence through the arc of a curve to the right with a radius of 2789.14 feet, a central angle of36° 05' 56" and an arc length of 1757 feet more or less to the South line of said Section 20; thence leaving said proposed right of way line and along the South line of said Section 20 westerly, 21 feet more or less to said Southwest comer of Section 20; thence continuing along the South line of said Section 19 westerly, 663 feet more or less to said East line of the Northwestern Railroad right of way; thence leaving said South line and along said East line northwesterly, 1471.8 feet (Record: 22.30 chains) more or less to the point of beginning and the end of this description.

   Excepting therefrom any portion lying within the limits of East Hill Road (C.R. 301); and any portion lying within the lands described in the deed to the State of California recorded December 27, 2007 as 2007-22888, Mendocino County Records.

   APNs: 007-100-28 and 007-160-18

SCHEDULE B

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in the said policy form would be as follows:

1. Taxes and assessments, general and special, for the fiscal year 2017 - 2018, as follows
   Assessor's Parcel No.: 007-100-28
   Code No.: 004-001
   1st Installment: $296.25, Paid
   2nd Installment: $296.25, Unpaid

2. Taxes and assessments, general and special, for the fiscal year 2017 - 2018, as follows
   Assessor's Parcel No.: 007-160-18
   Code No.: 004-001
   1st Installment: $1,095.00, Paid
   2nd Installment: $1,095.00, Unpaid

3. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Section 75, et seq. of the Revenue and Taxation Code of the State of California.

4. Easement(s) for the purposes stated herein and incidental purposes as provided in the following instrument(s):
   Recorded: May 23, 1950 in Book 262, Page 455, Official Records
   In Favor of: Pacific Gas and Electric Company
   For: public utilities

5. Easement(s) for the purposes stated herein and incidental purposes as provided in the following instrument(s):
   Recorded: September 20, 1978 in Book 1171, Page 529, Official Records
   In Favor of: Pacific Gas and Electric Company
   For: public utilities

6. Easement(s) for the purposes stated herein and incidental purposes as provided in the document(s):
   Recorded: April 17, 2006 as 2006-07361 and 2006-07362, Official Records
   For: access and public utilities

7. Waiver of any claims for damages to said property by reason of the location, construction, landscaping or maintenance of the highway/freeway adjoining said property, as contained in the deed to the State of California, recorded December 27, 2007 as 2007-22888, Official Records.

8. Terms and conditions contained in that certain revocable declaration of trust dated April 29, 1992.
   NOTE: The requirement that either:
   a. a Certification of Trust be furnished in accordance with California Probate Code Section 18100.5; or
   b. a complete copy of the trust instrument(s), together with a statement that the trust has not been revoked or otherwise terminated, be furnished for this Company's review.
   The Company reserves the right to make additional exceptions and/or requirements upon review of either of the above.

9. The requirement that a certified copy of a resolution of the board of directors of Bemcore Enterprises, Inc. be furnished to this company authorizing or ratifying the proposed transaction.

END OF SCHEDULE B

INFORMATIONAL NOTES:

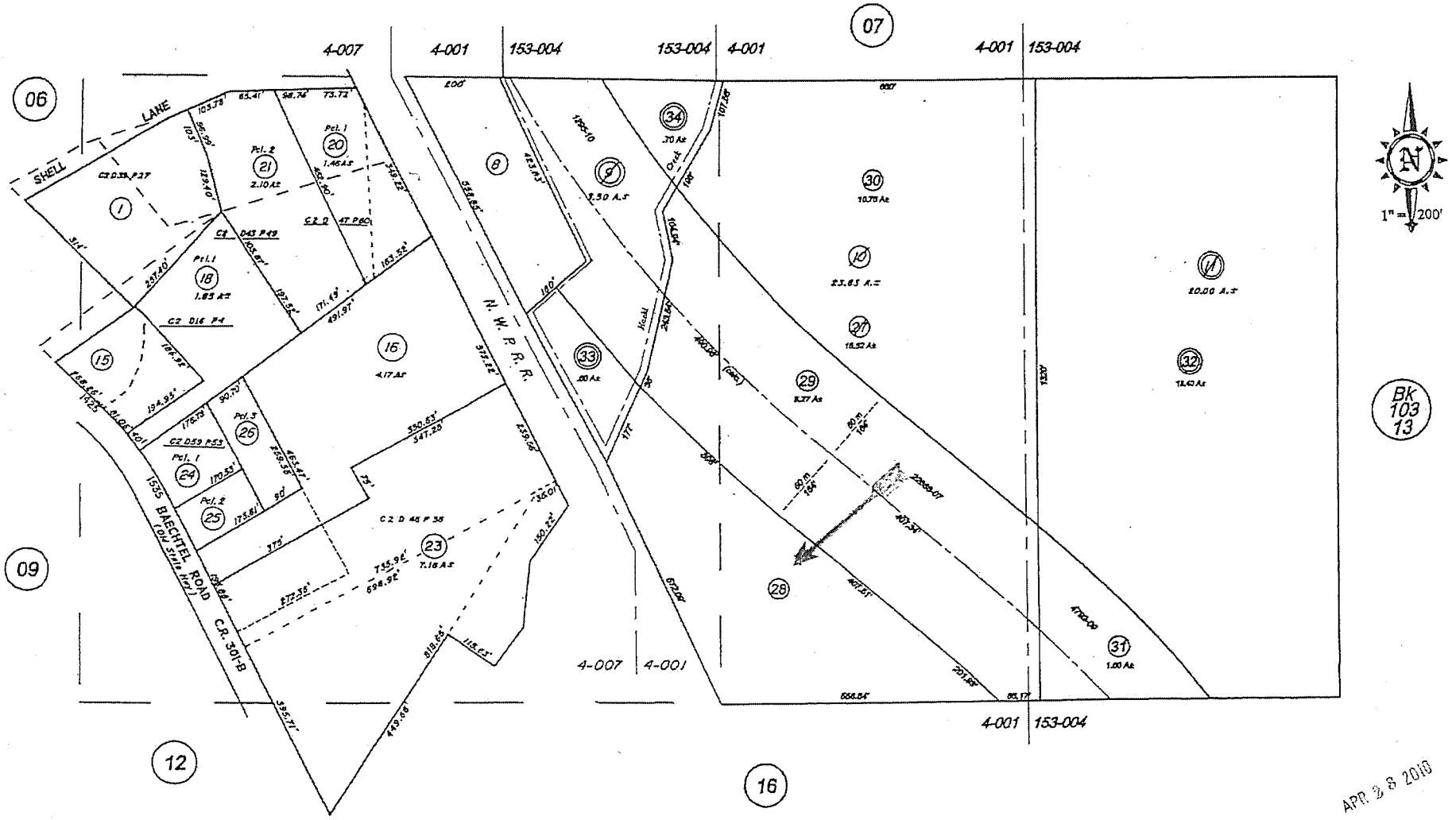
1. NOTE: According to the public records, there have been no deeds conveying the property described in this report recorded within a period of 24 months prior to the date hereof except as follows:

   A Grant Deed executed by Margie Lee Handley, Successor Trustee of the Trust set up by the Trust Declaration of Leon C. Handley dated April 29, 1992 to Bemcore Enterprises Inc., recorded December 22, 2016 as 2016-17460 of Official Records

N½ of SE¼ of Sec. 19 T.18N. R.13W. M.D.B.& M.

4-001
4-007
153-004

7-10



NOTE: This map was prepared for assessment purposes only. No liability is assumed for the data delineated hereon.

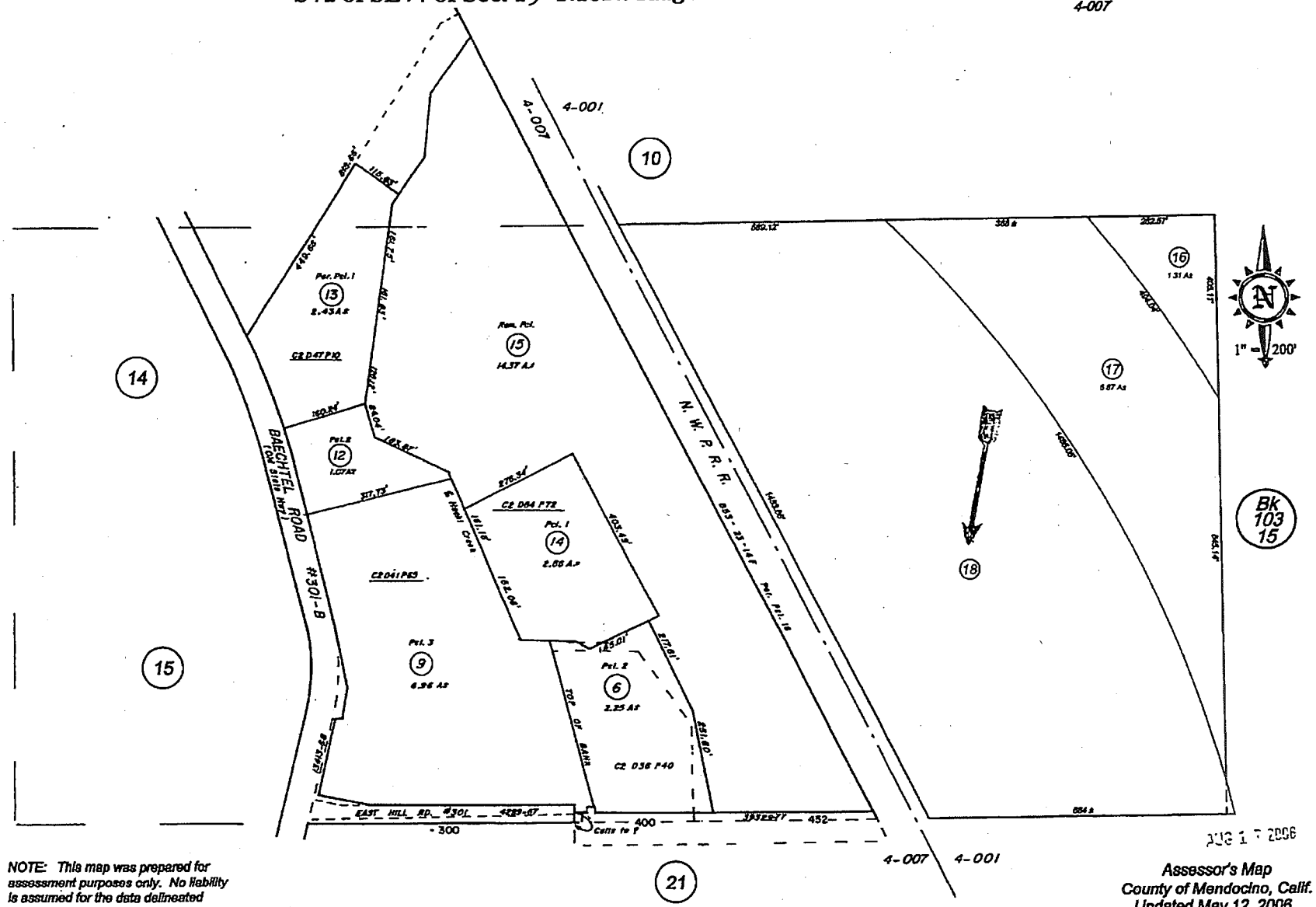
Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to streets and other land. No liability is assumed by reason of any reliance hereon.

Assessor's Map
County of Mendocino, Calif.
Updated February 17, 2010

S½ of SE¼ of Sec. 19 T.18N. R.13W. M.D.B.& M.

4-001
4-007

7 - 16



NOTE: This map was prepared for assessment purposes only. No liability is assumed for the data delineated hereon.

Assessor's Map
County of Mendocino, Calif.
Updated May 12, 2006

"Notice: This is neither a plat nor a survey. It is furnished merely as a convenience to aid you in locating the land indicated hereon with reference to streets and other land. No liability is assumed by reason of any reliance hereon."

CLTA PRELIMINARY REPORT FORM (EXHIBIT A) (01-01-08)

CALIFORNIA LAND TITLE ASSOCIATION
STANDARD COVERAGE POLICY - 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.

3. Defects, liens, encumbrances, adverse claims or other matters:

   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;

   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;

   (c) resulting in no loss or damage to the insured claimant;

   (d) attaching or created subsequent to Date of Policy; or

   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.

4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.

5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.

6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.

4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.

6. Any lien or right to a lien for services, labor or material not shown by the public records.

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to

      (i) the occupancy, use, or enjoyment of the Land;

      (ii) the character, dimensions, or location of any improvement erected on the Land;

      (iii) the subdivision of land; or

      (iv) environmental protection;

      or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.

2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
      (i) the occupancy, use, or enjoyment of the Land;
      (ii) the character, dimensions, or location of any improvement erected on the Land;
      (iii) the subdivision of land; or
      (iv) environmental protection;

      or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown in the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.

Privacy Statement
July 1, 2001

We recognize and respect the privacy expectations of today's consumers and the requirements of applicable federal and state privacy laws. We believe that making you aware of how we use your non-public personal information ("Personal Information"), and to whom it is disclosed, will form the basis for a relationship of trust between us and the public we serve. This Privacy Statement provides that explanation. We reserve the right to change this Privacy Statement from time to time consistent with applicable privacy laws.

In the course of our business, we may collect Personal Information about you from the following sources:

- From applications or other forms we receive from you or your authorized representative;
- From your transactions with, or from the services being performed by us, our affiliates, or others;
- From our Internet web sites;
- From the public records maintained by governmental entities that we either obtain directly from those entities, or from our affiliates or others; and
- From consumer or other reporting agencies.

Our Policies Regarding the Protection of the Confidentiality and Security of Your Personal Information

We maintain physical, electronic and procedural safeguards to protect your Personal Information from unauthorized access or intrusion. We limit access to the Personal Information only to those employees who need such access in connection with providing products or services to you or for other legitimate business purposes.

Our Policies and Practices Regarding the Sharing of Your Personal Information

We may share your Personal Information with our affiliates, such as insurance companies, agents, and other real estate settlement providers. We may also disclose your Personal Information:

- to agents, brokers or representatives to provide you with services you have requested.
- to third-party contractors or service providers who provide services or perform marketing or other functions on our behalf; and
- to others with whom we enter into joint marketing agreements for products or services that we believe you may find of interest.

In addition, we will disclose your Personal Information when you direct or give us permission, when we are required by law to do so, or when we suspect fraudulent or criminal activities. We may also disclose your Personal Information when otherwise permitted by applicable privacy laws such as, for example, when disclosure is needed to enforce our rights arising out of any agreement, transaction or relationship with you.

One of the important responsibilities of some of our affiliated companies is to record documents in the public domain. Such documents may contain your Personal Information.

Right to Access Your Personal Information and Ability to Correct Errors or Request Changes or Deletion

Certain states afford you the right to access your Personal Information and, under certain circumstances, to find out to whom your Personal Information has been disclosed. Also, certain states afford you the right to request correction, amendment or deletion of your Personal Information. We reserve the right, where permitted by law, to charge a reasonable fee to cover the costs incurred in responding to such requests.

All requests must be made in writing to the following address:

Privacy Compliance Officer
Redwood Empire Title Company
P.O. Box 238
Ukiah, CA 95482

Multiple Products or Services

If we provide you with more than one financial product or service, you may receive more than one privacy notice from us. We apologize for any inconvenience this may cause you.

EDR Radius Report 4

East Hill Road
East Hill Road
Willits, CA 95490

Inquiry Number: 5250926.2s
April 09, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

EAST HILL ROAD
WILLITS, CA 95490

COORDINATES

Latitude (North):	39.3943490 - 39° 23' 39.65''
Longitude (West):	123.3390120 - 123° 20' 20.44''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	470807.2
UTM Y (Meters):	4360385.5
Elevation:	1388 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5602906 WILLITS, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140605
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
EAST HILL ROAD
WILLITS, CA 95490

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	MICROPHOR, INC.	452 HILL	SLIC, HIST CORTESE	Higher	302, 0.057, WSW
A2	MICROPHOR INC	452 EAST HILL ROAD	ENVIROSTOR, HIST UST	Higher	302, 0.057, WSW
A3	MICROPHOR INC	452 E HILL RD	RCRA-SQG, FINDS, ECHO	Higher	302, 0.057, WSW
A4	MICROPHOR INC	452 EAST HILL RD	AST	Higher	302, 0.057, WSW
B5	HARWOOD PRODUCTS TRU	SHELL LANE	SLIC	Lower	763, 0.145, NW
C6	METAL FX	300 EAST HILL RD	AST	Higher	830, 0.157, SW
C7	ADVANCED MFG & DEV	300 E HILL RD	RCRA-SQG, FINDS, ECHO	Higher	830, 0.157, SW
C8	ADVANCED MANUFACTURI	300 E. HILL ROAD	ENVIROSTOR	Higher	830, 0.157, SW
C9	WILLITS BYPASS MASTE	300 EAST HILL ROAD	SLIC, CHMIRS, NPDES	Higher	830, 0.157, SW
B10	NORCAL RECYCLED ROCK	291A SHELL LN	AST	Lower	911, 0.173, NW
B11	NOR-CAL REDI MIX	291 SHELL LANE	AST	Lower	911, 0.173, NW
D12	WILLITS	21340 BEACHTEL RD	HIST UST	Higher	919, 0.174, West
D13	CALTRANS-WILLITS/STA	21340 BAECHTEL RD	SWEEPS UST, CA FID UST	Higher	919, 0.174, West
D14	WILLITS	21340 BAECHTEL RD	HIST UST	Higher	919, 0.174, West
D15	CALTRANS WILLITS MAI	21340 BAECHTEL RD	RCRA-SQG	Higher	919, 0.174, West
D16	CDOT WILLITS MAINTEN	21340 BAECHTEL ROAD	LUST, ENF, HIST CORTESE	Higher	919, 0.174, West
E17	PERSICO FOSSIL FUEL	288 SHELL LANE	LUST, HIST CORTESE	Lower	1044, 0.198, NW
E18	HELMS PETROLEUM PROD	288 SHELL LN	AST	Lower	1044, 0.198, NW
E19	EEL RIVER FUELS, INC	288 SHELL LN	AST	Lower	1044, 0.198, NW
E20	RINEHART OIL, INC. P	288 SHELL LN	SWEEPS UST, CA FID UST	Lower	1044, 0.198, NW
E21	PERSICO FOSSIL FUELS	288 SHELL LANE	HIST UST, HAZNET	Lower	1044, 0.198, NW
E22	SHELL OIL PRODUCTS U	288 SHELL LANE	RCRA-SQG	Lower	1044, 0.198, NW
E23	RINEHART OIL, INC. P	288 SHELL LN	HIST UST	Lower	1044, 0.198, NW
24	PACIFIC PRIDE	251 SHELL LN	UST	Higher	1212, 0.230, NW
25	PG&E WILLITS	BAECHTEL ROAD 1601	LUST	Higher	1333, 0.252, SW
26	PG&E WILLITS	1601 BAECHTEL	LUST, HIST CORTESE	Higher	1782, 0.338, WNW
F27	PETERS AND GARMAN-WW	266 SHELL LANE	SLIC, WMUDS/SWAT	Lower	1874, 0.355, NW
F28	FOSTER, OHN	266 SHELL LANE	SLIC	Lower	1874, 0.355, NW
F29	PETERS & GARMAN	266 SHELL LANE	SLIC	Lower	1874, 0.355, NW
30	BLAZE CHEVROLET-PONT	1565 MAIN STREET, SO	LUST, HIST CORTESE	Higher	2107, 0.399, West
G31	BP, RINEHART	1579 MAIN STREET, SO	LUST, HIST CORTESE	Higher	2115, 0.401, WSW
G32	BERGLUND INC	1600 S MAIN	LUST, DEED, RCRA NonGen / NLR, FINDS, ECHO, HIST...	Higher	2199, 0.416, WSW
G33	BERGLUND CATERPILLAR	1600 S MAIN	ENVIROSTOR	Higher	2199, 0.416, WSW
34	BROWN'S, INC	1799 S MAIN ST	LUST, HIST UST, CA FID UST, ENF, HIST CORTESE	Higher	2356, 0.446, SW
35	TESORO #67118	1250 MAIN STREET, SO	LUST, Cortese, ENF, HIST CORTESE	Higher	2548, 0.483, WNW
36	CDF MENDOCINO RANGER	HIGHWAY 101, NORTH 1	LUST	Higher	2579, 0.488, SSW
37	REMCO HYDRAULICS, IN	934 SOUTH MAIN STREE	Notify 65	Higher	3494, 0.662, NW
38	ABEX CORPORATION	SOUTH MAIN STREET	ENVIROSTOR	Lower	3759, 0.712, NW
39	UNION OIL	229 E SAN FRANCISCO	ENVIROSTOR	Lower	4306, 0.816, NNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

EXECUTIVE SUMMARY

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
HIST Cal-Sites ---------- Historical Calsites Database
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

EXECUTIVE SUMMARY

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
ABANDONED MINES	Abandoned Mines
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
ECHO	Enforcement & Compliance History Information
DOCKET HWC	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM	EPA Fuels Program Registered Listing
CA BOND EXP. PLAN	Bond Expenditure Plan

CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
UIC - UIC Listing
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Auto - EDR Exclusive Historical Auto Stations
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List
RGA LUST - Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR INC	***452 E HILL RD***	***WSW 0 - 1/8 (0.057 mi.)***	***A3***	***10***
ADVANCED MFG & DEV	***300 E HILL RD***	***SW 1/8 - 1/4 (0.157 mi.)***	***C7***	***13***
CALTRANS WILLITS MAI	21340 BAECHTEL RD	W 1/8 - 1/4 (0.174 mi.)	D15	30

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL PRODUCTS U	288 SHELL LANE	NW 1/8 - 1/4 (0.198 mi.)	E22	42

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/30/2018 has revealed that there are 5 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR INC Facility Id: 23360001 Status: Refer: RWQCB	***452 EAST HILL ROAD***	***WSW 0 - 1/8 (0.057 mi.)***	***A2***	***8***
ADVANCED MANUFACTURI Facility Id: 71003003 Status: Inactive - Needs Evaluation	300 E. HILL ROAD	SW 1/8 - 1/4 (0.157 mi.)	C8	15
BERGLUND CATERPILLAR Facility Id: 23350002 Status: Refer: RWQCB	1600 S MAIN	WSW 1/4 - 1/2 (0.416 mi.)	G33	63

Lower Elevation	Address	Direction / Distance	Map ID	Page
ABEX CORPORATION Facility Id: 23340001 Status: Refer: RWQCB	SOUTH MAIN STREET	NW 1/2 - 1 (0.712 mi.)	38	87
UNION OIL Facility Id: 23510002	229 E SAN FRANCISCO	NNW 1/2 - 1 (0.816 mi.)	39	88

Status: Refer: RWQCB

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 10 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CDOT WILLITS MAINTEN	***21340 BAECHTEL ROAD***	***W 1/8 - 1/4 (0.174 mi.)***	***D16***	***32***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Facility Id: 1TMC238 Global Id: T0604500201				
PG&E WILLITS	BAECHTEL ROAD 1601	SW 1/4 - 1/2 (0.252 mi.)	25	45
Database: LUST REG 1, Date of Government Version: 02/01/2001 Facility Id: 1TMC177				
PG&E WILLITS	***1601 BAECHTEL***	***WNW 1/4 - 1/2 (0.338 mi.)***	***26***	***45***
Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Global Id: T0604500155				
BLAZE CHEVROLET-PONT	***1565 MAIN STREET, SO***	***W 1/4 - 1/2 (0.399 mi.)***	***30***	***49***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Facility Id: 1TMC076 Global Id: T0604500067				
BP, RINEHART	***1579 MAIN STREET, SO***	***WSW 1/4 - 1/2 (0.401 mi.)***	***G31***	***51***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Facility Id: 1TMC095 Global Id: T0604500084				
BERGLUND INC	***1600 S MAIN***	***WSW 1/4 - 1/2 (0.416 mi.)***	***G32***	***57***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Facility Id: 1TMC037 Global Id: T0604500032				
BROWN'S, INC	***1799 S MAIN ST***	***SW 1/4 - 1/2 (0.446 mi.)***	***34***	***64***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018 Status: Completed - Case Closed Facility Id: 1TMC374 Global Id: T0604500306				
TESORO #67118	***1250 MAIN STREET, SO***	***WNW 1/4 - 1/2 (0.483 mi.)***	***35***	***76***
Database: LUST REG 1, Date of Government Version: 02/01/2001 Database: LUST, Date of Government Version: 03/12/2018				

Status: Completed - Case Closed
Facility Id: 1TMC120
Global Id: T0604500105

CDF MENDOCINO RANGER	HIGHWAY 101, NORTH 1	SSW 1/4 - 1/2 (0.488 mi.)	36	86

Database: LUST REG 1, Date of Government Version: 02/01/2001
Facility Id: 1TMC393

Lower Elevation	Address	Direction / Distance	Map ID	Page
PERSICO FOSSIL FUEL	***288 SHELL LANE***	***NW 1/8 - 1/4 (0.198 mi.)***	***E17***	***35***

Database: LUST REG 1, Date of Government Version: 02/01/2001
Database: LUST, Date of Government Version: 03/12/2018
Status: Open - Site Assessment
Facility Id: 1TMC359
Global Id: T0604500293

SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the SLIC list, as provided by EDR, has revealed that there are 6 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR, INC.	***452 HILL***	***WSW 0 - 1/8 (0.057 mi.)***	***A1***	***8***

Database: SLIC, Date of Government Version: 03/12/2018
Database: SLIC REG 1, Date of Government Version: 04/03/2003
Facility Status: Open - Remediation
Facility Id: 1NMC290
Global Id: T0604593353

WILLITS BYPASS MASTE	***300 EAST HILL ROAD***	***SW 1/8 - 1/4 (0.157 mi.)***	***C9***	***16***

Database: SLIC, Date of Government Version: 03/12/2018
Database: SLIC REG 1, Date of Government Version: 04/03/2003
Facility Status: Open - Inactive
Facility Id: 1NMC306
Global Id: T0604593369

Lower Elevation	Address	Direction / Distance	Map ID	Page
HARWOOD PRODUCTS TRU	SHELL LANE	NW 1/8 - 1/4 (0.145 mi.)	B5	12

Database: SLIC REG 1, Date of Government Version: 04/03/2003
Facility Id: 1NMC487

PETERS AND GARMAN-WW	***266 SHELL LANE***	***NW 1/4 - 1/2 (0.355 mi.)***	***F27***	***47***

Database: SLIC, Date of Government Version: 03/12/2018
Facility Status: Open - Site Assessment
Facility Status: Open - Inactive
Global Id: T0604593412
Global Id: T0604593433

FOSTER, OHN	266 SHELL LANE	NW 1/4 - 1/2 (0.355 mi.)	F28	49

Database: SLIC REG 1, Date of Government Version: 04/03/2003

Facility Id: 1NMC380

PETERS & GARMAN	266 SHELL LANE	NW 1/4 - 1/2 (0.355 mi.)	F29	49

Database: SLIC REG 1, Date of Government Version: 04/03/2003
Facility Id: 1NMC180

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PACIFIC PRIDE	251 SHELL LN	NW 1/8 - 1/4 (0.230 mi.)	24	44

Database: UST MENDOCINO, Date of Government Version: 02/28/2018
Database: UST, Date of Government Version: 03/12/2018
Facility Id: 5843

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there are 6 AST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR INC	452 EAST HILL RD	WSW 0 - 1/8 (0.057 mi.)	A4	12
METAL FX	300 EAST HILL RD	SW 1/8 - 1/4 (0.157 mi.)	C6	12

Lower Elevation	Address	Direction / Distance	Map ID	Page
NORCAL RECYCLED ROCK	291A SHELL LN	NW 1/8 - 1/4 (0.173 mi.)	B10	26
NOR-CAL REDI MIX	291 SHELL LANE	NW 1/8 - 1/4 (0.173 mi.)	B11	26
HELMS PETROLEUM PROD	288 SHELL LN	NW 1/8 - 1/4 (0.198 mi.)	E18	38
EEL RIVER FUELS, INC	288 SHELL LN	NW 1/8 - 1/4 (0.198 mi.)	E19	39

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PETERS AND GARMAN-WW	***266 SHELL LANE***	***NW 1/4 - 1/2 (0.355 mi.)***	***F27***	***47***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CALTRANS-WILLITS/STA	***21340 BAECHTEL RD***	***W 1/8 - 1/4 (0.174 mi.)***	***D13***	***27***
Status: A				
Tank Status: A				
Comp Number: 67910				

Lower Elevation	Address	Direction / Distance	Map ID	Page
RINEHART OIL, INC. P	***288 SHELL LN***	***NW 1/8 - 1/4 (0.198 mi.)***	***E20***	***39***
Status: A				
Tank Status: A				
Comp Number: 14603				

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 5 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR INC	***452 EAST HILL ROAD***	***WSW 0 - 1/8 (0.057 mi.)***	***A2***	***8***
Facility Id: 00000001884				
WILLITS	21340 BEACHTEL RD	W 1/8 - 1/4 (0.174 mi.)	D12	27
WILLITS	21340 BAECHTEL RD	W 1/8 - 1/4 (0.174 mi.)	D14	29
Facility Id: 00000067910				

Lower Elevation	Address	Direction / Distance	Map ID	Page
PERSICO FOSSIL FUELS	***288 SHELL LANE***	***NW 1/8 - 1/4 (0.198 mi.)***	***E21***	***41***
RINEHART OIL, INC. P	288 SHELL LN	NW 1/8 - 1/4 (0.198 mi.)	E23	43
Facility Id: 00000014603				

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CALTRANS-WILLITS/STA	***21340 BAECHTEL RD***	***W 1/8 - 1/4 (0.174 mi.)***	***D13***	***27***

Facility Id: 23000169
Status: A

Lower Elevation	Address	Direction / Distance	Map ID	Page
RINEHART OIL, INC. P	***288 SHELL LN***	***NW 1/8 - 1/4 (0.198 mi.)***	***E20***	***39***
Facility Id: 23000838 Status: A				

Local Land Records

DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the DEED list, as provided by EDR, and dated 02/08/2018 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BERGLUND INC	***1600 S MAIN***	***WSW 1/4 - 1/2 (0.416 mi.)***	***G32***	***57***
Status: COMPLETED - CASE CLOSED Envirostor ID: T0604500032				

Other Ascertainable Records

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 02/08/2018 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TESORO #67118	***1250 MAIN STREET, SO***	***WNW 1/4 - 1/2 (0.483 mi.)***	***35***	***76***

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 9 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MICROPHOR, INC. Reg Id: 23360001	***452 HILL***	***WSW 0 - 1/8 (0.057 mi.)***	***A1***	***8***
CDOT WILLITS MAINTEN Reg Id: 1TMC238	***21340 BAECHTEL ROAD***	***W 1/8 - 1/4 (0.174 mi.)***	***D16***	***32***
PG&E WILLITS	***1601 BAECHTEL***	***WNW 1/4 - 1/2 (0.338 mi.)***	***26***	***45***

Reg Id: 1TMC177				
BLAZE CHEVROLET-PONT	***1565 MAIN STREET, SO***	***W 1/4 - 1/2 (0.399 mi.)***	***30***	***49***
Reg Id: 1TMC076				
BP, RINEHART	***1579 MAIN STREET, SO***	***WSW 1/4 - 1/2 (0.401 mi.)***	***G31***	***51***
Reg Id: 1TMC095				
BERGLUND INC	***1600 S MAIN***	***WSW 1/4 - 1/2 (0.416 mi.)***	***G32***	***57***
Reg Id: 1TMC037				
BROWN'S, INC	***1799 S MAIN ST***	***SW 1/4 - 1/2 (0.446 mi.)***	***34***	***64***
Reg Id: 1TMC374				
TESORO #67118	***1250 MAIN STREET, SO***	***WNW 1/4 - 1/2 (0.483 mi.)***	***35***	***76***
Reg Id: 1TMC120				
Reg Id: 1B94006NMEN				

Lower Elevation	Address	Direction / Distance	Map ID	Page
PERSICO FOSSIL FUEL	***288 SHELL LANE***	***NW 1/8 - 1/4 (0.198 mi.)***	***E17***	***35***
Reg Id: 1TMC359				

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 12/14/2017 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

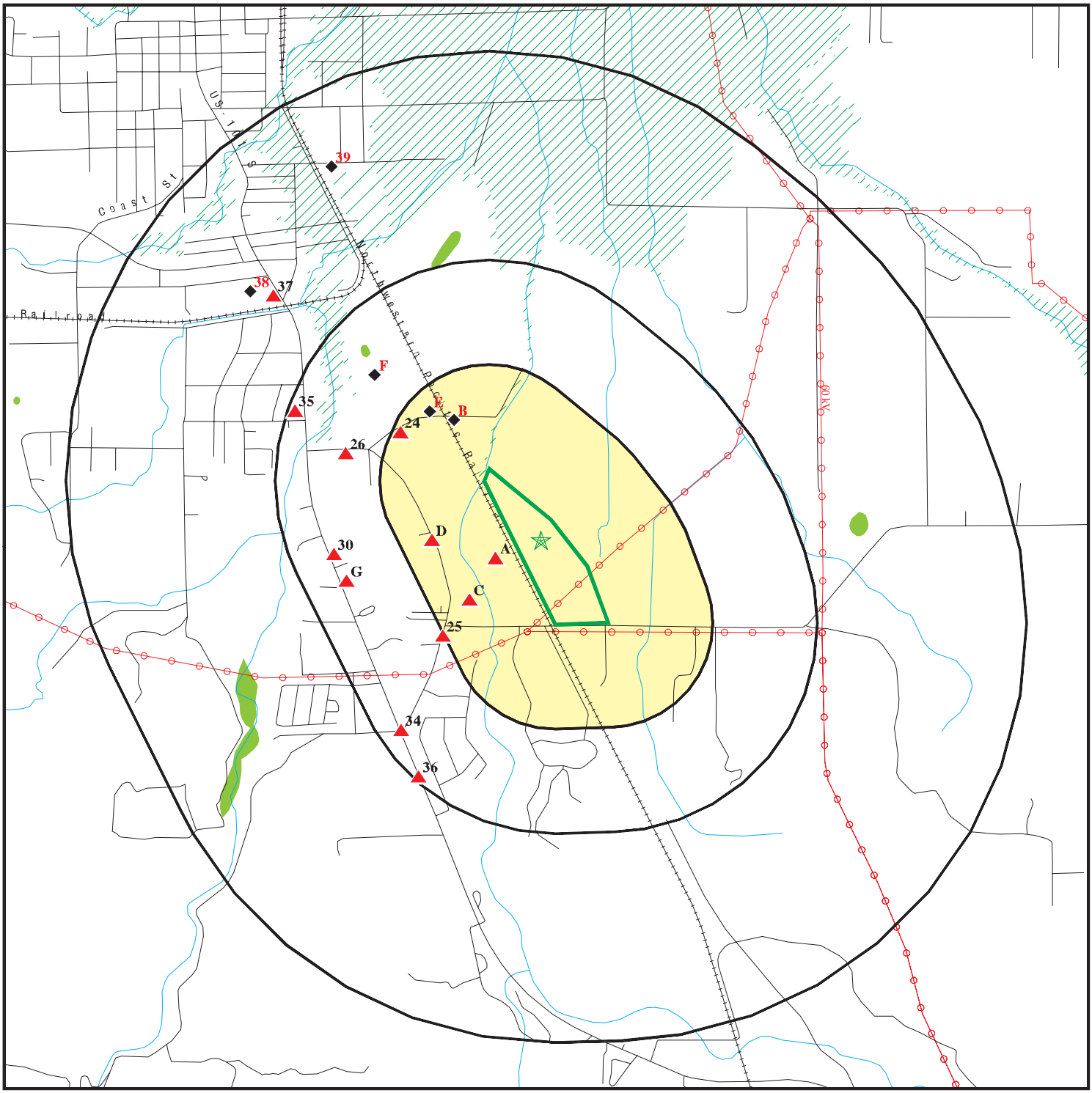
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
REMCO HYDRAULICS, IN	934 SOUTH MAIN STREE	NW 1/2 - 1 (0.662 mi.)	37	87

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
LOUISIANA PACIFIC WILLITS	SLIC

OVERVIEW MAP - 5250926.2S



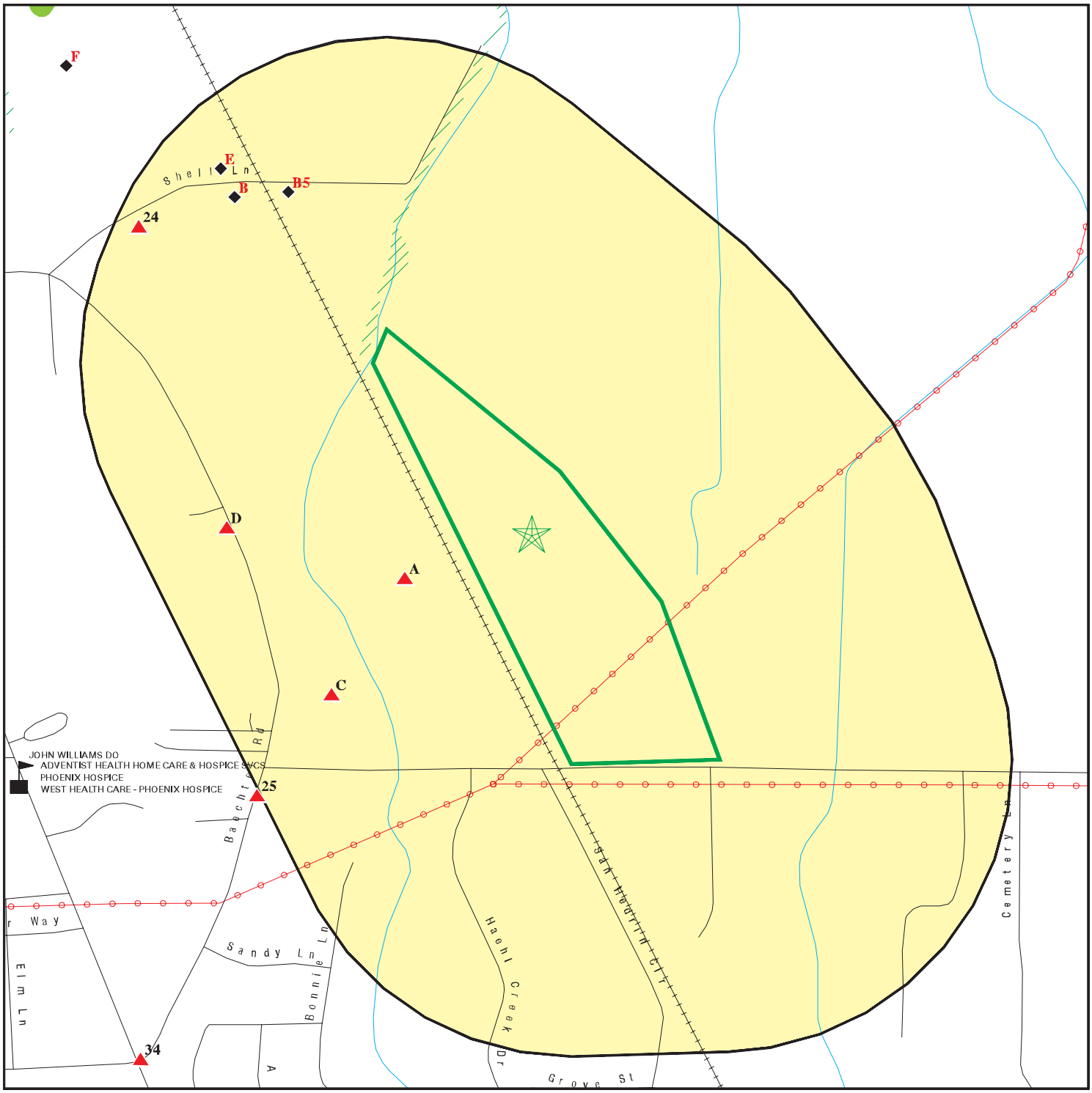
0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: East Hill Road	CLIENT: SHN Consulting Engineers
ADDRESS: East Hill Road Willits CA 95490	CONTACT: Diana Ward
LAT/LONG: 39.394349 / 123.339012	INQUIRY #: 5250926.2s DATE: April 09, 2018 0:32 am

DETAIL MAP - 5250926.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: East Hill Road	CLIENT: SHN Consulting Engineers
ADDRESS: East Hill Road Willits CA 95490	CONTACT: Diana Ward
LAT/LONG: 39.394349 / 123.339012	INQUIRY #: 5250926.2s DATE: April 09, 2018 0:34 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	3	NR	NR	NR	4
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	1	1	2	NR	5
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	2	8	NR	NR	10

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		1	2	3	NR	NR	6
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	1	NR	NR	NR	1
AST	0.250		1	5	NR	NR	NR	6
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	1	NR	NR	1
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	2	NR	NR	NR	2
HIST UST	0.250		1	4	NR	NR	NR	5
CA FID UST	0.250		0	2	NR	NR	NR	2
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	1	NR	NR	1
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		1	2	6	NR	NR	9
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	1	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	6	24	21	3	0	54

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **MICROPHOR, INC.** **SLIC** **S105027419**
WSW **452 HILL** **HIST CORTESE** **N/A**
< 1/8 **WILLITS, CA 95490**
0.057 mi.
302 ft. **Site 1 of 4 in cluster A**

Relative:
Higher

Actual:
1391 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Remediation**
Status Date:	04/09/2009
Global Id:	T0604593353
Lead Agency:	NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number:	Not reported
Latitude:	39.3926435526705
Longitude:	-123.341225981712
Case Type:	Cleanup Program Site
Case Worker:	TNM
Local Agency:	MENDOCINO COUNTY
RB Case Number:	1NMC290
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply, Surface water
Potential Contaminants of Concern:	* Solvents, 1,1,1-Trichloroethane (TCA), Acetone, Other Chlorinated Hydrocarbons, Other Solvent or Non-Petroleum Hydrocarbon, Trichloroethylene (TCE)
Site History:	The Microphor facility manufactures various products including sanitation units and plastic and electrical components. An Environmental Assessment Report conducted in 1994 detected chemicals of concern in the soil and groundwater at this site. Subsequent investigations indentified that groundwater was impacted with halogenated volatile organic compounds in the vicinity of a former vapor degresser in the Machine Shop. Soil and groundwater remediation is currently being conducted from a passive trench system and seven dual phase extraction wells.

Click here to access the California GeoTracker records for this facility:

SLIC REG 1:

Region:	1
Facility ID:	1NMC290
Staff Initials:	BML

HIST CORTESE:

Region:	CORTESE
Facility County Code:	23
Reg By:	CALSI
Reg Id:	23360001

A2 **MICROPHOR INC** **ENVIROSTOR** **U001611098**
WSW **452 EAST HILL ROAD** **HIST UST** **N/A**
< 1/8 **WILLITS, CA 95490**
0.057 mi.
302 ft. **Site 2 of 4 in cluster A**

Relative:
Higher

Actual:
1391 ft.

ENVIROSTOR:

Facility ID:	23360001
Status:	Refer: RWQCB
Status Date:	12/01/1994
Site Code:	Not reported
Site Type:	Historical

MICROPHOR INC (Continued) **U001611098**

Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	02
Senate:	02
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	39.39302
Longitude:	-123.3412
APN:	00716014
Past Use:	NONE SPECIFIED
Potential COC:	* HALOGENATED SOLVENTS * Laboratory Waste Chemicals * OTHER ORGANIC SOLIDS
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	00716014
Alias Type:	APN
Alias Name:	23360001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	12/01/1994
Comments:	Recommendation status: RWQCB
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	06/15/1988
Comments:	FACILITIY IDENTIFID DHS DRIVE-BY FACILITY DRIVE-BY LARGE IND SITE NEAR RR OBSV POOR GROUND PHOTOS
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	07/27/1988
Comments:	SITE SCREENING DONE FURTHER EVALUATION SEND Q
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

MICROPHOR INC (Continued) **U001611098**

HIST UST:

File Number:	00029835
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00029835.pdf
Region:	STATE
Facility ID:	00000001884
Facility Type:	Other
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	7074595563
Owner Name:	MICROPHOR, INC.
Owner Address:	452 EAST HILL ROAD
Owner City,St,Zip:	WILLITS, CA 95490
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1974
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	10
Leak Detection:	Stock Inventor, None

Click here for Geo Tracker PDF:

A3 **MICROPHOR INC** **RCRA-SQG** **1000857229**
WSW **452 E HILL RD** **FINDS** **CAD053265781**
< 1/8 **WILLITS, CA 95490** **ECHO**
0.057 mi.
302 ft. **Site 3 of 4 in cluster A**

Relative:
Higher

Actual:
1391 ft.

RCRA-SQG:

Date form received by agency:	06/04/1993
Facility name:	MICROPHOR INC
Facility address:	452 E HILL RD WILLITS, CA 95490
EPA ID:	CAD053265781
Contact:	TED MAYFIELD
Contact address:	452 E HILL RD WILLITS, CA 95490
Contact country:	US
Contact telephone:	707-459-5563
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MICROPHOR INC
Owner/operator address:	452 E HILL RD WILLITS, CA 95490
Owner/operator country:	Not reported
Owner/operator telephone:	707-459-5563

MICROPHOR INC (Continued) **1000857229**

Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002649288

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000857229
Registry ID: 110002649288
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002649288

A4 **MICROPHOR INC** **AST** **A100338556**
WSW **452 EAST HILL RD** **N/A**
< 1/8 **WILLITS, CA**
0.057 mi.
302 ft. **Site 4 of 4 in cluster A**

Relative: AST:
Higher

Actual:
1391 ft.

Certified Unified Program Agencies:	Mendocino
Owner:	Microphor Inc
Total Gallons:	1,655
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

B5 **HARWOOD PRODUCTS TRUCK SERVICE YARD** **SLIC** **S105181244**
NW **SHELL LANE** **N/A**
1/8-1/4 **WILLITS, CA 0**
0.145 mi.
763 ft. **Site 1 of 3 in cluster B**

Relative: SLIC REG 1:
Lower

Actual:
1382 ft.

Region:	1
Facility ID:	1NMC487
Staff Initials:	AAA

C6 **METAL FX** **AST** **A100338551**
SW **300 EAST HILL RD** **N/A**
1/8-1/4 **WILLITS, CA**
0.157 mi.
830 ft. **Site 1 of 4 in cluster C**

Relative: AST:
Higher

Actual:
1391 ft.

Certified Unified Program Agencies:	Mendocino
Owner:	Metal fx
Total Gallons:	6,005
CERSID:	Not reported
Facility ID:	Not reported

METAL FX (Continued) **A100338551**

Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

C7 **ADVANCED MFG & DEV** **RCRA-SQG** **1000151483**
SW **300 E HILL RD** **FINDS** **CAD982332579**
1/8-1/4 **WILLITS, CA 95490** **ECHO**
0.157 mi.
830 ft. **Site 2 of 4 in cluster C**

Relative:
Higher

Actual:
1391 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	ADVANCED MFG & DEV
Facility address:	300 E HILL RD WILLITS, CA 95490
EPA ID:	CAD982332579
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RAMOS THIBAULT CORP
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

ADVANCED MFG & DEV (Continued) **1000151483**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: ADVANCED MFG & DEV
Classification: Small Quantity Generator

Date form received by agency: 11/09/1987
Site name: ADVANCED MFG & DEV
Classification: Small Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002795574

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

ADVANCED MFG & DEV (Continued) **1000151483**

corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000151483
Registry ID: 110002795574
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002795574

C8 SW 1/8-1/4 0.157 mi. 830 ft. **ADVANCED MANUFACTURING & DEVELOPMENT, INC.** **ENVIROSTOR** **S108213743**
300 E. HILL ROAD **N/A**
WILLITS, CA 95490

Site 3 of 4 in cluster C

Relative: Higher

Actual: 1391 ft.

ENVIROSTOR:
Facility ID: 71003003
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Berkeley
Assembly: 02
Senate: 02
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 39.39235
Longitude: -123.3422
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982332579
Alias Type: EPA Identification Number
Alias Name: 71003003
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 10/21/1996
Comments: uploading per request

Future Area Name: Not reported
Future Sub Area Name: Not reported

ADVANCED MANUFACTURING & DEVELOPMENT, INC. (Continued) **S108213743**

Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

C9 **WILLITS BYPASS MASTER** **SLIC** **S101432997**
SW **300 EAST HILL ROAD** **CHMIRS** **N/A**
1/8-1/4 **WILLITS, CA 95490** **NPDES**
0.157 mi.
830 ft. **Site 4 of 4 in cluster C**

Relative:
Higher

Actual:
1391 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	09/11/2010
Global Id:	T0604593369
Lead Agency:	NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number:	Not reported
Latitude:	39.3921253378639
Longitude:	-123.34185898304
Case Type:	Cleanup Program Site
Case Worker:	BML
Local Agency:	MENDOCINO COUNTY
RB Case Number:	1NMC306
File Location:	Regional Board
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	This site is across the creek from Microphor Site. VOCs detected in groundwater grab samples. Phase I identified that VOCs have been used at this property. No source area on this site has been indentified. Site is inactive pending further investigation by Microphor to identify source of VOCs in groundwater on the property.

Click here to access the California GeoTracker records for this facility:

SLIC REG 1:

Region:	1
Facility ID:	1NMC306
Staff Initials:	CSH

CHMIRS:

OES Incident Number:	13-3515
OES notification:	06/10/2013
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported

WILLITS BYPASS MASTER (Continued) **S101432997**

More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Haehl Creek
Spill Site:	Other
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	700
Year:	2013
Agency:	Fish and Wildlife
Incident Date:	6/10/2013
Admin Agency:	Mendocino County Health Department
Amount:	Not reported
Contained:	No
Site Type:	Haehl Creek
E Date:	Not reported
Substance:	Batter Acid
Quantity Released:	UNK
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Caller is reporting that debris and hydrocarbon materials have run-off from a fire at an metal shop, releasing to a nearby creek via storm drains.

WILLITS BYPASS MASTER (Continued) **S101432997**

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	1
Regulatory Measure Id:	433780
Order No:	Not reported
Regulatory Measure Type:	Caltrans Construction
Place Id:	Not reported
WDID:	1 23C366419
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/20/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	01/03/2013
PROCESSED DATE:	01/04/2013
STATUS CODE NAME:	Terminated
STATUS DATE:	12/20/2016
PLACE SIZE:	1696.2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Charlie Fielder
FACILITY CONTACT TITLE:	District Director
FACILITY CONTACT PHONE:	707-445-6445
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	charlie_fielder@dot.ca.gov
OPERATOR NAME:	Caltrans District 01
OPERATOR ADDRESS:	1656 Union Steet
OPERATOR CITY:	Eureka
OPERATOR STATE:	California
OPERATOR ZIP:	95501
OPERATOR CONTACT NAME:	Charlie Fielder
OPERATOR CONTACT TITLE:	District Director
OPERATOR CONTACT PHONE:	707-445-6445
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	charlie_fielder@dot.ca.gov
OPERATOR TYPE:	State Agency
DEVELOPER NAME:	Caltrans District 01
DEVELOPER ADDRESS:	1656 Union Steet
DEVELOPER CITY:	Eureka
DEVELOPER STATE:	California
DEVELOPER ZIP:	95501
DEVELOPER CONTACT NAME:	Charlie Fielder
DEVELOPER CONTACT TITLE:	District Director
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N
CONSTYPE COMMERTIAL IND:	N

WILLITS BYPASS MASTER (Continued) **S101432997**

CONSTYPE ELECTRICAL LINE IND:	N
CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	Y
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	N
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	Y
RECEIVING WATER NAME:	Haehl, Broaddus,Baecchtel, Mill &Upp Creek
CERTIFIER NAME:	Geoffrey Wright
CERTIFIER TITLE:	Senior Resident Engineer
CERTIFICATION DATE:	03-JAN-13
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	1
Regulatory Measure Id:	456143
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	1 23C373208
Program Type:	Caltrans Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/17/2015
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Caltrans District 01
Discharge Address:	1656 Union Steet
Discharge City:	Eureka
Discharge State:	California
Discharge Zip:	95501
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported

WILLITS BYPASS MASTER (Continued) **S101432997**

OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	1
Regulatory Measure Id:	432895
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	1 23C366111
Program Type:	Caltrans Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	04/11/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Caltrans District 01
Discharge Address:	1656 Union Steet
Discharge City:	Eureka
Discharge State:	California

WILLITS BYPASS MASTER (Continued) **S101432997**

Discharge Zip:	95501
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WILLITS BYPASS MASTER (Continued) **S101432997**

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	1
Regulatory Measure Id:	456143
Order No:	Not reported
Regulatory Measure Type:	Caltrans Construction
Place Id:	Not reported
WDID:	1 23C373208
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	06/12/2015
PROCESSED DATE:	06/17/2015
STATUS CODE NAME:	Active
STATUS DATE:	06/17/2015
PLACE SIZE:	232.3
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Nash Munes
FACILITY CONTACT TITLE:	Resident Engineer
FACILITY CONTACT PHONE:	707-223-0791
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	nash.munes@dot.ca.gov
OPERATOR NAME:	Caltrans District 01
OPERATOR ADDRESS:	1656 Union Steet
OPERATOR CITY:	Eureka
OPERATOR STATE:	California
OPERATOR ZIP:	95501
OPERATOR CONTACT NAME:	Mathew Brady
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	707-445-6445
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	LRP_Caltrans_ District_01@dot.ca.gov
OPERATOR TYPE:	State Agency
DEVELOPER NAME:	Hanford ARC
DEVELOPER ADDRESS:	23195 Maffei Road
DEVELOPER CITY:	Sonoma
DEVELOPER STATE:	California
DEVELOPER ZIP:	95476
DEVELOPER CONTACT NAME:	Doug Hanford
DEVELOPER CONTACT TITLE:	Water Pollution Control Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	707-223-0791
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N
CONSTYPE COMMERTIAL IND:	N
CONSTYPE ELECTRICAL LINE IND:	N

WILLITS BYPASS MASTER (Continued) **S101432997**

CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	Y
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	N
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	Y
RECEIVING WATER NAME:	Outlet Creek, Davis Creek, Mill Creek, Berry Creek
CERTIFIER NAME:	Raguparan Thangavelautham
CERTIFIER TITLE:	Resident Engineer
CERTIFICATION DATE:	12-JUN-15
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Terminated
Agency Id:	0
Region:	1
Regulatory Measure Id:	433780
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	1 23C366419
Program Type:	Caltrans Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/04/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/20/2016
Discharge Name:	Caltrans District 01
Discharge Address:	1656 Union Steet
Discharge City:	Eureka
Discharge State:	California
Discharge Zip:	95501
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported

WILLITS BYPASS MASTER (Continued) **S101432997**

OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	1
Regulatory Measure Id:	432895
Order No:	Not reported
Regulatory Measure Type:	Caltrans Construction
Place Id:	Not reported
WDID:	1 23C366111
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported

WILLITS BYPASS MASTER (Continued) **S101432997**

RECEIVED DATE:	11/30/2012
PROCESSED DATE:	04/11/2013
STATUS CODE NAME:	Active
STATUS DATE:	04/11/2013
PLACE SIZE:	1696.2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Charlie Fielder
FACILITY CONTACT TITLE:	District Director
FACILITY CONTACT PHONE:	707-445-6445
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	charlie_fielder@dot.ca.gov
OPERATOR NAME:	Caltrans District 01
OPERATOR ADDRESS:	1656 Union Steet
OPERATOR CITY:	Eureka
OPERATOR STATE:	California
OPERATOR ZIP:	95501
OPERATOR CONTACT NAME:	Charlie Fielder
OPERATOR CONTACT TITLE:	District Director
OPERATOR CONTACT PHONE:	707-445-6445
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	charlie_fielder@dot.ca.gov
OPERATOR TYPE:	State Agency
DEVELOPER NAME:	Caltrans District 01
DEVELOPER ADDRESS:	1656 Union Steet
DEVELOPER CITY:	Eureka
DEVELOPER STATE:	California
DEVELOPER ZIP:	95501
DEVELOPER CONTACT NAME:	Charlie Fielder
DEVELOPER CONTACT TITLE:	District Director
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	N
CONSTYPE BELOW GROUND IND:	N
CONSTYPE CABLE LINE IND:	N
CONSTYPE COMM LINE IND:	N
CONSTYPE COMMERTIAL IND:	N
CONSTYPE ELECTRICAL LINE IND:	N
CONSTYPE GAS LINE IND:	N
CONSTYPE INDUSTRIAL IND:	N
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	N
CONSTYPE RECONS IND:	N
CONSTYPE RESIDENTIAL IND:	N
CONSTYPE TRANSPORT IND:	Y
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	N
CONSTYPE WATER SEWER IND:	N
DIR DISCHARGE USWATER IND:	Y
RECEIVING WATER NAME:	Haehl Creek, Broaddus Ck, Baechtel Ck, Mill Ck, Upp Creek, Eel River
CERTIFIER NAME:	Geoffrey Wright
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	30-NOV-12
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

B10 **NORCAL RECYCLED ROCK & AGGREGATES, INC.** **AST** **A100422796**
NW **291A SHELL LN** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.173 mi.
911 ft. **Site 2 of 3 in cluster B**

Relative: AST:
Lower

Actual:
1384 ft.

Certified Unified Program Agencies:	Not reported
Owner:	Frank Dutra
Total Gallons:	Not reported
CERSID:	10485595
Facility ID:	HZ 23-6023
Business Name:	Norcal Recycled Rock & Aggregates, Inc.
Phone:	7074599636
Fax:	7074592335
Mailing Address:	P.O. Box 2073
Mailing Address City:	Willits
Mailing Address State:	CA
Mailing Address Zip Code:	95490
Operator Name:	Norcal Recycled Rock & Aggregates, Inc.
Operator Phone:	7074599636
Owner Phone:	707-459-9636
Owner Mail Address:	P.O. Box 2073
Owner State:	CA
Owner Zip Code:	95490
Owner Country:	United States
Property Owner Name:	Norcal Recycled Rock & Aggregates, Inc.
Property Owner Phone:	707-459-9636
Property Owner Mailing Address:	P.O. Box 2073
Property Owner City:	Willits
Property Owner Stat :	CA
Property Owner Zip Code:	95490
Property Owner Country:	United States
EPAID:	Not reported

B11 **NOR-CAL REDI MIX** **AST** **A100338167**
NW **291 SHELL LANE** **N/A**
1/8-1/4 **WILLITS, CA**
0.173 mi.
911 ft. **Site 3 of 3 in cluster B**

Relative: AST:
Lower

Actual:
1384 ft.

Certified Unified Program Agencies:	Mendocino
Owner:	Nor-Cal Redi Mix
Total Gallons:	3,170
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported

NOR-CAL REDI MIX (Continued) **A100338167**

Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

D12 **WILLITS** **HIST UST** **S118417133**
West **21340 BEACHTEL RD** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.174 mi.
919 ft. **Site 1 of 5 in cluster D**

Relative: **Higher**
Actual: **1395 ft.**

HIST UST:

File Number:	00029601
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00029601.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

D13 **CALTRANS-WILLITS/STATE OF CALIFORNIA** **SWEEPS UST** **S101588554**
West **21340 BAECHTEL RD** **CA FID UST** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.174 mi.
919 ft. **Site 2 of 5 in cluster D**

Relative: **Higher**
Actual: **1395 ft.**

SWEEPS UST:

Status:	Active
Comp Number:	67910
Number:	6
Board Of Equalization:	44-014226
Referral Date:	07-12-90
Action Date:	07-12-90
Created Date:	07-31-88
Owner Tank Id:	1

CALTRANS-WILLITS/STATE OF CALIFORNIA (Continued) **S101588554**

SWRCB Tank Id: 23-000-067910-000001
Tank Status: A
Capacity: 4000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 3

Status: Active
Comp Number: 67910
Number: 6
Board Of Equalization: 44-014226
Referral Date: 07-12-90
Action Date: 07-12-90
Created Date: 07-31-88
Owner Tank Id: 2
SWRCB Tank Id: 23-000-067910-000002
Tank Status: A
Capacity: 10000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 67910
Number: 6
Board Of Equalization: 44-014226
Referral Date: 07-12-90
Action Date: 07-12-90
Created Date: 07-31-88
Owner Tank Id: 3
SWRCB Tank Id: 23-000-067910-000003
Tank Status: A
Capacity: 500
Active Date: 07-01-85
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 23000169
Regulated By: UTNKA
Regulated ID: 00067910
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7074592218
Mail To: Not reported
Mailing Address: P O BOX 656
Mailing Address 2: Not reported
Mailing City,St,Zip: WILLITS 95490
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported

CALTRANS-WILLITS/STATE OF CALIFORNIA (Continued) **S101588554**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

D14 **WILLITS** **HIST UST** **U001611107**
West **21340 BAECHTEL RD** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.174 mi.
919 ft. **Site 3 of 5 in cluster D**

Relative: **Higher**
Actual: **1395 ft.**

HIST UST:

File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000067910
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	7074592218
Owner Name:	CALIF DEPT OF TRANSPORTATION
Owner Address:	1120 N STREET
Owner City,St,Zip:	SACRAMENTO, CA 95814
Total Tanks:	0003
Tank Num:	001
Container Num:	0000000001
Year Installed:	1981
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Not reported
Tank Num:	002
Container Num:	0000000002
Year Installed:	1981
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Not reported
Tank Num:	003
Container Num:	0000000003
Year Installed:	1981
Tank Capacity:	00000500
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

D15
West
1/8-1/4
0.174 mi.
919 ft.

CALTRANS WILLITS MAINT FACILITY
21340 BAECHTEL RD
WILLITIS, CA 95490

Site 4 of 5 in cluster D

RCRA-SQG | **1000134670** / **CAD981968696**

Relative:
Higher

Actual:
1395 ft.

RCRA-SQG:

Date form received by agency:	03/09/2004
Facility name:	CALTRANS WILLITS MAINT FACILITY
Facility address:	21340 BAECHTEL RD WILLITIS, CA 95490
EPA ID:	CAD981968696
Contact:	JAMES M GROW
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	707-463-4781
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	CA DEPT OF TRANSPORATION
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	State
Owner/Operator Type:	Operator
Owner/Op start date:	12/01/1981
Owner/Op end date:	Not reported

Owner/operator name:	STATE OF CALIFORNIA
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported

CALTRANS WILLITS MAINT FACILITY (Continued) **1000134670**

Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CA DEPT OF TRANSPORATION
Owner/operator address: 21340 BAECHTEL RD
WILLITIS, CA 95490
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: State
Owner/Operator Type: Owner
Owner/Op start date: 12/01/1981
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D007
. Waste name: CHROMIUM

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CAL TRANS WILLITTS
Classification: Small Quantity Generator

Date form received by agency: 03/19/1987
Site name: CAL TRANS WILLITTS
Classification: Large Quantity Generator

Violation Status: No violations found

D16 **CDOT WILLITS MAINTENANCE STATION** **LUST** **S101298832**
West **21340 BAECHTEL ROAD** **ENF** **N/A**
1/8-1/4 **WILLITS, CA 95490** **HIST CORTESE**
0.174 mi.
919 ft. **Site 5 of 5 in cluster D**

Relative:
Higher

Actual:
1395 ft.

LUST:

Lead Agency:	NORTH COAST RWQCB (REGION 1)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500201
Global Id:	T0604500201
Latitude:	39.390364
Longitude:	-123.3436874
Status:	Completed - Case Closed
Status Date:	03/11/2002
Case Worker:	ZZZ
RB Case Number:	1TMC238
Local Agency:	MENDOCINO COUNTY
File Location:	Not reported
Local Case Number:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0604500201
Contact Type:	Regional Board Caseworker
Contact Name:	REGIONAL WATER BOARD SITE CLOSED
Organization Name:	NORTH COAST RWQCB (REGION 1)
Address:	5550 SKYLANE BOULEVARD, SUITE A
City:	SANTA ROSA
Email:	craig.hunt@waterboards.ca.gov
Phone Number:	7075762220

LUST:

Global Id:	T0604500201
Action Type:	ENFORCEMENT
Date:	12/01/1992
Action:	* Historical Enforcement

Global Id:	T0604500201
Action Type:	Other
Date:	10/29/1992
Action:	Leak Reported

Global Id:	T0604500201
Action Type:	Other
Date:	10/29/1992
Action:	Leak Stopped

Global Id:	T0604500201
Action Type:	Other
Date:	10/29/1992
Action:	Leak Discovery

LUST:

Global Id:	T0604500201
Status:	Open - Case Begin Date
Status Date:	10/29/1992

CDOT WILLITS MAINTENANCE STATION (Continued) **S101298832**

Global Id: T0604500201
Status: Open - Site Assessment
Status Date: 12/01/1992

Global Id: T0604500201
Status: Open - Site Assessment
Status Date: 10/10/2000

Global Id: T0604500201
Status: Open - Site Assessment
Status Date: 10/23/2000

Global Id: T0604500201
Status: Completed - Case Closed
Status Date: 03/11/2002

LUST REG 1:
Region: 1
Facility ID: 1TMC238
Staff Initials: CSH

ENF:
Region: 1
Facility Id: 213765
Agency Name: Not reported
Place Type: Service/Commercial
Place Subtype: Service/Commercial Site, NEC
Facility Type: All other facilities
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: 39.394443
Place Longitude: -123.343809
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported
NAICS Desc 1: Not reported
NAICS Code 2: Not reported
NAICS Desc 2: Not reported
NAICS Code 3: Not reported
NAICS Desc 3: Not reported
Of Places: 1
Source Of Facility: Enf Action
Design Flow: Not reported
Threat To Water Quality: Not reported
Complexity: Not reported
Pretreatment: Not reported
Facility Waste Type: Not reported
Facility Waste Type 2: Not reported
Facility Waste Type 3: Not reported
Facility Waste Type 4: Not reported
Program: Not reported

CDOT WILLITS MAINTENANCE STATION (Continued) **S101298832**

Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	224456
Region:	1
Order / Resolution Number:	Not reported
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	07/20/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	07/20/1999
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B1MC238NUG CDOT Willits Maintenance Station
Description:	Not reported
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

HIST CORTESE:

Region:	CORTESE
Facility County Code:	23

CDOT WILLITS MAINTENANCE STATION (Continued) **S101298832**

Reg By: LTNKA
Reg Id: 1TMC238

E17
NW
1/8-1/4
0.198 mi.
1044 ft.

PERSICO FOSSIL FUEL **LUST S103393022**
288 SHELL LANE **HIST CORTESE N/A**
WILLITS, CA 95490

Site 1 of 7 in cluster E

Relative:
Lower

Actual:
1384 ft.

LUST:
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500293
Global Id: T0604500293
Latitude: 39.398527
Longitude: -123.3438319
Status: Open - Site Assessment
Status Date: 05/22/2000
Case Worker: CSW
RB Case Number: 1TMC359
Local Agency: MENDOCINO COUNTY
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0604500293
Contact Type: Regional Board Caseworker
Contact Name: CODY WALKER
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: cody.walker@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/08/1997
Action: * Historical Enforcement

Global Id: T0604500293
Action Type: Other
Date: 07/08/1997
Action: Leak Reported

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 06/04/2013
Action: Staff Letter

Global Id: T0604500293
Action Type: Other
Date: 07/08/1997
Action: Leak Discovery

PERSICO FOSSIL FUEL (Continued) **S103393022**

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/28/2009
Action: Staff Letter

Global Id: T0604500293
Action Type: RESPONSE
Date: 08/24/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 01/13/2011
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 05/12/2011
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 06/29/2012
Action: Staff Letter

Global Id: T0604500293
Action Type: RESPONSE
Date: 12/31/2002
Action: Soil and Water Investigation Workplan

Global Id: T0604500293
Action Type: RESPONSE
Date: 12/02/2002
Action: Other Report / Document

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 01/13/2011
Action: Staff Letter

Global Id: T0604500293
Action Type: RESPONSE
Date: 01/04/2018
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 11/11/2008
Action: File review

Global Id: T0604500293
Action Type: Other
Date: 07/08/1997
Action: Leak Stopped

Global Id: T0604500293
Action Type: ENFORCEMENT

PERSICO FOSSIL FUEL (Continued) **S103393022**

Date: 06/17/2011
Action: Notice of Reimbursement

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 08/08/2013
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/02/2013
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/08/2009
Action: File review

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 02/22/2016
Action: Site Visit / Inspection / Sampling

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 09/30/2010
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 02/21/2013
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 08/21/2002
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 05/25/2015
Action: Verbal Communication

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/28/2014
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 06/25/2012
Action: Staff Letter

Global Id: T0604500293
Action Type: ENFORCEMENT
Date: 07/27/2010
Action: Staff Letter

PERSICO FOSSIL FUEL (Continued) **S103393022**

LUST:
Global Id: T0604500293
Status: Open - Case Begin Date
Status Date: 07/08/1997

Global Id: T0604500293
Status: Open - Site Assessment
Status Date: 07/08/1997

Global Id: T0604500293
Status: Open - Site Assessment
Status Date: 05/12/2000

Global Id: T0604500293
Status: Open - Site Assessment
Status Date: 05/22/2000

LUST REG 1:
Region: 1
Facility ID: 1TMC359
Staff Initials: BAR

HIST CORTESE:
Region: CORTESE
Facility County Code: 23
Reg By: LTNKA
Reg Id: 1TMC359

E18 **HELMS PETROLEUM PRODUCTS COMPANY** **AST** **A100339057**
NW **288 SHELL LN** **N/A**
1/8-1/4 **WILLITS, CA**
0.198 mi.
1044 ft. **Site 2 of 7 in cluster E**

Relative: AST:
Lower
Actual: Certified Unified Program Agencies: Mendocino
1384 ft. Owner: Helms Petroleum Products Company
Total Gallons: 57,752
CERSID: Not reported
Facility ID: Not reported
Business Name: Not reported
Phone: Not reported
Fax: Not reported
Mailing Address: Not reported
Mailing Address City: Not reported
Mailing Address State: Not reported
Mailing Address Zip Code: Not reported
Operator Name: Not reported
Operator Phone: Not reported
Owner Phone: Not reported
Owner Mail Address: Not reported
Owner State: Not reported
Owner Zip Code: Not reported
Owner Country: Not reported
Property Owner Name: Not reported

HELMS PETROLEUM PRODUCTS COMPANY (Continued) **A100339057**

Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

E19 **EEL RIVER FUELS, INC. WILLITS** **AST** **A100419731**
NW **288 SHELL LN** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.198 mi.
1044 ft. **Site 3 of 7 in cluster E**

Relative: AST:
Lower

Certified Unified Program Agencies:	Not reported
Owner:	Ken Foster
Total Gallons:	Not reported
CERSID:	10507738
Facility ID:	Not reported
Business Name:	Eel River Fuels Inc.
Phone:	707-459-1070
Fax:	707-459-1044
Mailing Address:	288 Shell Lane
Mailing Address City:	Willits
Mailing Address State:	CA
Mailing Address Zip Code:	95490
Operator Name:	Eel River Fuels, Inc. Willits
Operator Phone:	707-459-1070
Owner Phone:	707-462-5554
Owner Mail Address:	3371 N State Street
Owner State:	CA
Owner Zip Code:	95482
Owner Country:	United States
Property Owner Name:	Ken Foster
Property Owner Phone:	707-462-5554
Property Owner Mailing Address:	3371 N State Street
Property Owner City:	Ukiah
Property Owner Stat :	CA
Property Owner Zip Code:	95482
Property Owner Country:	United States
EPAID:	Not reported

Actual:
1384 ft.

E20 **RINEHART OIL, INC. PLANT 2** **SWEEPS UST** **S101627460**
NW **288 SHELL LN** **CA FID UST** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.198 mi.
1044 ft. **Site 4 of 7 in cluster E**

Relative: SWEEPS UST:
Lower

Status:	Active
Comp Number:	14603
Number:	1
Board Of Equalization:	44-014073
Referral Date:	07-20-90
Action Date:	07-20-90

Actual:
1384 ft.

RINEHART OIL, INC. PLANT 2 (Continued) **S101627460**

Created Date: 07-31-88
Owner Tank Id: 1
SWRCB Tank Id: 23-000-014603-000001
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: 4

Status: Active
Comp Number: 14603
Number: 1
Board Of Equalization: 44-014073
Referral Date: 07-20-90
Action Date: 07-20-90
Created Date: 07-31-88
Owner Tank Id: 2
SWRCB Tank Id: 23-000-014603-000002
Tank Status: A
Capacity: 1000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 14603
Number: 1
Board Of Equalization: 44-014073
Referral Date: 07-20-90
Action Date: 07-20-90
Created Date: 07-31-88
Owner Tank Id: 3
SWRCB Tank Id: 23-000-014603-000003
Tank Status: A
Capacity: 2000
Active Date: 07-01-85
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 14603
Number: 1
Board Of Equalization: 44-014073
Referral Date: 07-20-90
Action Date: 07-20-90
Created Date: 07-31-88
Owner Tank Id: 4
SWRCB Tank Id: 23-000-014603-000004
Tank Status: A
Capacity: 2000
Active Date: 07-01-85

RINEHART OIL, INC. PLANT 2 (Continued) **S101627460**

Tank Use: UNKNOWN
STG: P
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 23000838
Regulated By: UTNKA
Regulated ID: 00014603
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7074595607
Mail To: Not reported
Mailing Address: P O BOX
Mailing Address 2: Not reported
Mailing City,St,Zip: WILLITS 95490
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

E21 **PERSICO FOSSIL FUELS** **HIST UST S113106682**
NW **288 SHELL LANE** **HAZNET N/A**
1/8-1/4 **WILLITS, CA 95490**
0.198 mi.
1044 ft. **Site 5 of 7 in cluster E**

Relative: HIST UST:
Lower File Number: 000298D5
Actual: URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000298D5.pdf
1384 ft. Region: Not reported
Facility ID: Not reported
Facility Type: Not reported
Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

HAZNET:
envid: S113106682

PERSICO FOSSIL FUELS (Continued) **S113106682**

Year:	2000
GEPAID:	CAL000209445
Contact:	CHUCK_PERSICO-OWNER
Telephone:	7074590266
Mailing Name:	Not reported
Mailing Address:	288 SHELL LANE
Mailing City,St,Zip:	WILLITS, CA 954900000
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Unspecified oil-containing waste
Disposal Method:	Recycler
Tons:	0.95
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Mendocino

E22 **SHELL OIL PRODUCTS US WILLITS BULK PLANT** **RCRA-SQG** **1014950757**
NW **288 SHELL LANE** **CAR000228072**
1/8-1/4 **WILLITS, CA 95490**
0.198 mi.
1044 ft. **Site 6 of 7 in cluster E**

Relative: **Lower**

Actual: **1384 ft.**

RCRA-SQG:

Date form received by agency:	09/04/2012
Facility name:	SHELL OIL PRODUCTS US WILLITS BULK PLANT
Facility address:	288 SHELL LANE WILLITS, CA 95490
EPA ID:	CAR000228072
Mailing address:	PO BOX 3127 HOUSTON, TX 77253
Contact:	RAY E WALDING
Contact address:	910 LOUISIANA STREET ROOM 655 HOUSTON, TX 77002
Contact country:	US
Contact telephone:	713-241-7008
Contact email:	RAY.WALDING@SHELL.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	SHELL OIL PRODUCTS US
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	05/01/2002

SHELL OIL PRODUCTS US WILLITS BULK PLANT (Continued) **1014950757**

Owner/Op end date: Not reported

Owner/operator name: EQUILON ENT LLC DBA SHELL OIL PRODUCTS U
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/01/2002
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

E23 **RINEHART OIL, INC. PLANT 2** **HIST UST** **U001611096**
NW **288 SHELL LN** **N/A**
1/8-1/4 **WILLITS, CA 95490**
0.198 mi.
1044 ft. **Site 7 of 7 in cluster E**

Relative: HIST UST:
Lower
File Number: Not reported
Actual: URL: Not reported
1384 ft. Region: STATE
Facility ID: 00000014603
Facility Type: Gas Station
Other Type: Not reported
Contact Name: Not reported
Telephone: 7074595607
Owner Name: RINEHART OIL, INC.
Owner Address: 2401 NO. STATE ST.
Owner City,St,Zip: UKIAH, CA 95482

RINEHART OIL, INC. PLANT 2 (Continued) **U001611096**

Total Tanks: 0004

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: Not reported
Tank Capacity: 00001000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

24
NW
1/8-1/4
0.230 mi.
1212 ft.

PACIFIC PRIDE **UST** **U004262762**
251 SHELL LN **N/A**
WILLITS, CA 95490

Relative:
Higher

Actual:
1388 ft.

UST:
Facility ID: 5843
Permitting Agency: Mendocino County Environmental Health
Latitude: 39.39793
Longitude: -123.34513

UST MENDOCINO:
Region: MENDOCINO
Permit Number: HZ235843
CERS ID: 10668295

25
SW
1/4-1/2
0.252 mi.
1333 ft.

PG&E WILLITS
BAECHTEL ROAD 1601
WILLITS, CA

LUST **S101298831**
N/A

Relative:
Higher

Actual:
1404 ft.

LUST REG 1:
Region: 1
Facility ID: 1TMC177
Staff Initials: Closed

26
WNW
1/4-1/2
0.338 mi.
1782 ft.

PG&E WILLITS
1601 BAECHTEL
WILLITS, CA 95490

LUST **S103633756**
HIST CORTESE **N/A**

Relative:
Higher

Actual:
1389 ft.

LUST:
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500155
Global Id: T0604500155
Latitude: 39.3903589
Longitude: -123.343038
Status: Completed - Case Closed
Status Date: 01/22/1996
Case Worker: ZZZ
RB Case Number: 1TMC177
Local Agency: MENDOCINO COUNTY
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0604500155
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

Global Id: T0604500155
Contact Type: Local Agency Caseworker
Contact Name: WAYNE BRILEY
Organization Name: MENDOCINO COUNTY
Address: 501 LOW GAP ROAD, ROOM 1326
City: UKIAH
Email: brileyw@co.mendocino.ca.us
Phone Number: Not reported

LUST:
Global Id: T0604500155
Action Type: ENFORCEMENT
Date: 10/02/1991
Action: * Historical Enforcement

PG&E WILLITS (Continued) **S103633756**

Global Id: T0604500155
Action Type: Other
Date: 09/25/1991
Action: Leak Reported

Global Id: T0604500155
Action Type: Other
Date: 09/25/1991
Action: Leak Stopped

Global Id: T0604500155
Action Type: Other
Date: 09/25/1991
Action: Leak Discovery

LUST:
Global Id: T0604500155
Status: Open - Case Begin Date
Status Date: 09/25/1991

Global Id: T0604500155
Status: Open - Site Assessment
Status Date: 10/02/1991

Global Id: T0604500155
Status: Open - Site Assessment
Status Date: 11/20/1991

Global Id: T0604500155
Status: Open - Site Assessment
Status Date: 01/23/1992

Global Id: T0604500155
Status: Open - Remediation
Status Date: 01/21/1996

Global Id: T0604500155
Status: Open - Site Assessment
Status Date: 01/21/1996

Global Id: T0604500155
Status: Open - Verification Monitoring
Status Date: 01/21/1996

Global Id: T0604500155
Status: Completed - Case Closed
Status Date: 01/22/1996

HIST CORTESE:
Region: CORTESE
Facility County Code: 23
Reg By: LTNKA
Reg Id: 1TMC177

F27
NW
1/4-1/2
0.355 mi.
1874 ft.

PETERS AND GARMAN-WWDS
266 SHELL LANE
WILLITS ,CA, 95490

Site 1 of 3 in cluster F

SLIC **S104156185**
WMUDS/SWAT **N/A**

Relative:
Lower

Actual:
1384 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	12/26/2000
Global Id:	T0604593412
Lead Agency:	NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number:	Not reported
Latitude:	39.398538
Longitude:	-123.344461
Case Type:	Cleanup Program Site
Case Worker:	CSW
Local Agency:	MENDOCINO COUNTY
RB Case Number:	1NMC180
File Location:	Regional Board
Potential Media Affected:	Well used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Region:	STATE
Facility Status:	**Open - Inactive**
Status Date:	03/02/2009
Global Id:	T0604593433
Lead Agency:	NORTH COAST RWQCB (REGION 1)
Lead Agency Case Number:	Not reported
Latitude:	39.398538
Longitude:	-123.344461
Case Type:	Cleanup Program Site
Case Worker:	CSW
Local Agency:	MENDOCINO COUNTY
RB Case Number:	1NMC380
File Location:	Regional Board
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Primary Waste:	SLDWST
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).

PETERS AND GARMAN-WWDS (Continued) **S104156185**

Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	PETERS AND GARMAN CONSTRUCTION
Agency Department:	Not reported
Agency Address:	266 SHELL LANE
Agency City,St,Zip:	WILLITS ,CA 95490
Agency Contact:	BOB PETERS
Agency Telephone:	7074595759
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	CA
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	1
Facility Type:	Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Facility Description:	Not reported
Facility Telephone:	7074595759
SWAT Facility Name:	Not reported
Primary SIC:	2421
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	PETERS & GARMAN
Threat to Water Quality:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Sub Chapter 15:	True
Regional Board Project Officer:	TBD
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Monthly Submittal
Waste Discharge System ID:	1B76232OMEN
Solid Waste Information ID:	Not reported

F28 **FOSTER, OHN** **SLIC** **S105051192**
NW **266 SHELL LANE** **N/A**
1/4-1/2 **WILLITS, CA 95490**
0.355 mi.
1874 ft. **Site 2 of 3 in cluster F**

Relative: SLIC REG 1:
Lower Region: 1
Actual: Facility ID: 1NMC380
1384 ft. Staff Initials: JMG

F29 **PETERS & GARMAN** **SLIC** **S105051272**
NW **266 SHELL LANE** **N/A**
1/4-1/2 **WILLITS, CA 95490**
0.355 mi.
1874 ft. **Site 3 of 3 in cluster F**

Relative: SLIC REG 1:
Lower Region: 1
Actual: Facility ID: 1NMC180
1384 ft. Staff Initials: JMG

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30 **BLAZE CHEVROLET-PONTIAC** **LUST** **S101298845**
West **1565 MAIN STREET, SOUTH** **HIST CORTESE** **N/A**
1/4-1/2 **WILLITS, CA 95490**
0.399 mi.
2107 ft.

Relative: LUST:
Higher Lead Agency: NORTH COAST RWQCB (REGION 1)
Actual: Case Type: LUST Cleanup Site
1403 ft. Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500067
Global Id: T0604500067
Latitude: 39.394537
Longitude: -123.346372
Status: Completed - Case Closed
Status Date: 08/09/1996
Case Worker: ZZZ
RB Case Number: 1TMC076
Local Agency: MENDOCINO COUNTY
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0604500067
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500067

BLAZE CHEVROLET-PONTIAC (Continued) **S101298845**

Action Type: ENFORCEMENT
Date: 08/21/1989
Action: * Historical Enforcement

Global Id: T0604500067
Action Type: Other
Date: 08/21/1989
Action: Leak Reported

Global Id: T0604500067
Action Type: Other
Date: 08/21/1989
Action: Leak Discovery

Global Id: T0604500067
Action Type: Other
Date: 08/21/1989
Action: Leak Stopped

LUST:
Global Id: T0604500067
Status: Open - Case Begin Date
Status Date: 08/21/1989

Global Id: T0604500067
Status: Open - Site Assessment
Status Date: 08/21/1989

Global Id: T0604500067
Status: Open - Site Assessment
Status Date: 07/08/1992

Global Id: T0604500067
Status: Open - Site Assessment
Status Date: 08/20/1992

Global Id: T0604500067
Status: Open - Site Assessment
Status Date: 06/21/1995

Global Id: T0604500067
Status: Open - Remediation
Status Date: 08/08/1996

Global Id: T0604500067
Status: Open - Verification Monitoring
Status Date: 08/08/1996

Global Id: T0604500067
Status: Completed - Case Closed
Status Date: 08/09/1996

LUST REG 1:
Region: 1
Facility ID: 1TMC076

BLAZE CHEVROLET-PONTIAC (Continued) **S101298845**

Staff Initials: Closed

HIST CORTESE:
Region: CORTESE
Facility County Code: 23
Reg By: LTNKA
Reg Id: 1TMC076

G31 **BP, RINEHART** **LUST** **S102425707**
WSW **1579 MAIN STREET, SOUTH** **HIST CORTESE** **N/A**
1/4-1/2 **WILLITS, CA 95490**
0.401 mi.
2115 ft. **Site 1 of 3 in cluster G**

Relative:
Higher

Actual:
1414 ft.

LUST:
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500084
Global Id: T0604500084
Latitude: 39.392911131
Longitude: -123.3479139
Status: Completed - Case Closed
Status Date: 10/12/2012
Case Worker: ZZZ
RB Case Number: 1TMC095
Local Agency: Not reported
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0604500084
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500084
Action Type: RESPONSE
Date: 11/28/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 01/18/2011
Action: Verbal Enforcement

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 09/29/2011
Action: Staff Letter

BP, RINEHART (Continued) **S102425707**

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/14/2010
Action: Conceptual Site Model

Global Id: T0604500084
Action Type: RESPONSE
Date: 08/01/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 08/01/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 10/28/2009
Action: Staff Letter

Global Id: T0604500084
Action Type: REMEDIATION
Date: 07/29/1997
Action: Excavation

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 01/09/2017
Action: Email Correspondence

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/01/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 07/10/2002
Action: Staff Letter

Global Id: T0604500084
Action Type: RESPONSE
Date: 06/06/2003
Action: Other Workplan

Global Id: T0604500084
Action Type: RESPONSE
Date: 10/08/2003
Action: Soil and Water Investigation Report

Global Id: T0604500084
Action Type: Other
Date: 12/19/1989
Action: Leak Reported

Global Id: T0604500084
Action Type: ENFORCEMENT

BP, RINEHART (Continued) **S102425707**

Date: 05/20/2003
Action: * Verbal Communication

Global Id: T0604500084
Action Type: Other
Date: 12/19/1989
Action: Leak Discovery

Global Id: T0604500084
Action Type: RESPONSE
Date: 11/01/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/14/2010
Action: Interim Remedial Action Plan

Global Id: T0604500084
Action Type: RESPONSE
Date: 12/31/2009
Action: Monitoring Report - Annually

Global Id: T0604500084
Action Type: Other
Date: 12/19/1989
Action: Leak Stopped

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 05/28/2009
Action: File review

Global Id: T0604500084
Action Type: RESPONSE
Date: 11/01/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 09/17/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 09/10/2009
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0604500084
Action Type: RESPONSE
Date: 07/02/2008
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 08/06/1999
Action: 13267 Monitoring Program - #M&R 99-20

BP, RINEHART (Continued) **S102425707**

Global Id: T0604500084
Action Type: RESPONSE
Date: 07/08/2002
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 09/19/2002
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 12/05/2002
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/24/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 03/05/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 12/16/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 03/31/2005
Action: Soil and Water Investigation Report

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/01/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 03/14/2011
Action: Verbal Enforcement

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 09/29/2011
Action: Notification - Public Notice of Case Closure

Global Id: T0604500084
Action Type: ENFORCEMENT

BP, RINEHART (Continued) **S102425707**

Date: 10/12/2012
Action: Closure/No Further Action Letter

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 10/18/2012
Action: Rescission of Enforcement Action

Global Id: T0604500084
Action Type: RESPONSE
Date: 08/01/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/01/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/01/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 08/06/2009
Action: Staff Letter

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 07/29/2009
Action: 13267 Monitoring Program

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 09/23/2011
Action: File Review - Closure

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 12/23/2004
Action: Staff Letter

Global Id: T0604500084
Action Type: RESPONSE
Date: 07/09/2002
Action: Soil and Water Investigation Workplan

Global Id: T0604500084
Action Type: ENFORCEMENT
Date: 07/08/2003
Action: Staff Letter

Global Id: T0604500084
Action Type: RESPONSE
Date: 11/01/2008
Action: Monitoring Report - Quarterly

BP, RINEHART (Continued) **S102425707**

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/01/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/03/2011
Action: Soil and Water Investigation Workplan - Addendum

Global Id: T0604500084
Action Type: RESPONSE
Date: 12/31/2010
Action: Monitoring Report - Annually

Global Id: T0604500084
Action Type: RESPONSE
Date: 10/12/2010
Action: Soil and Water Investigation Workplan

Global Id: T0604500084
Action Type: RESPONSE
Date: 06/09/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/01/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/01/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 05/01/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 08/01/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 11/01/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: RESPONSE
Date: 02/01/2009
Action: Monitoring Report - Quarterly

Global Id: T0604500084
Action Type: ENFORCEMENT

BP, RINEHART (Continued) **S102425707**

Date: 12/23/2004
Action: 13267 Monitoring Program - #R1-2004-0116

LUST:
Global Id: T0604500084
Status: Open - Case Begin Date
Status Date: 12/19/1989

Global Id: T0604500084
Status: Open - Site Assessment
Status Date: 01/10/1990

Global Id: T0604500084
Status: Open - Site Assessment
Status Date: 06/14/1994

Global Id: T0604500084
Status: Open - Site Assessment
Status Date: 08/01/1994

Global Id: T0604500084
Status: Open - Site Assessment
Status Date: 09/25/2000

Global Id: T0604500084
Status: Open - Site Assessment
Status Date: 07/19/2001

Global Id: T0604500084
Status: Completed - Case Closed
Status Date: 10/12/2012

LUST REG 1:
Region: 1
Facility ID: 1TMC095
Staff Initials: CSH

HIST CORTESE:
Region: CORTESE
Facility County Code: 23
Reg By: LTNKA
Reg Id: 1TMC095

G32 **BERGLUND INC** **LUST 1000235881**
WSW **1600 S MAIN** **DEED CAD981441645**
1/4-1/2 **WILLITS, CA 95490** **RCRA NonGen / NLR**
0.416 mi. **FINDS**
2199 ft. **Site 2 of 3 in cluster G** **ECHO**
HIST CORTESE

Relative:
Higher

Actual:
1414 ft.

LUST:
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500032
Global Id: T0604500032

BERGLUND INC (Continued) **1000235881**

Latitude: 39.392203
Longitude: -123.349199
Status: Completed - Case Closed
Status Date: 07/01/2004
Case Worker: ZZZ
RB Case Number: 1TMC037
Local Agency: MENDOCINO COUNTY
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline, Waste Oil / Motor / Hydraulic / Lubricating
Site History: Not reported

LUST:
Global Id: T0604500032
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 07/20/1999
Action: * Historical Enforcement

Global Id: T0604500032
Action Type: Other
Date: 06/03/1988
Action: Leak Discovery

Global Id: T0604500032
Action Type: RESPONSE
Date: 06/25/2004
Action: Other Report / Document

Global Id: T0604500032
Action Type: RESPONSE
Date: 05/01/2013
Action: Correspondence

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 11/21/2002
Action: Meeting

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 05/11/2004
Action: Notification - Public Notice of Case Closure

Global Id: T0604500032
Action Type: Other
Date: 06/03/1988

BERGLUND INC (Continued) **1000235881**

Action: Leak Reported

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 05/11/2004
Action: Staff Letter

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 08/06/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500032
Action Type: Other
Date: 06/03/1988
Action: Leak Stopped

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 05/31/2002
Action: Staff Letter

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 12/02/2002
Action: * No Action

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 03/03/2003
Action: Staff Letter

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 04/09/2003
Action: File review

Global Id: T0604500032
Action Type: RESPONSE
Date: 06/28/2004
Action: Unknown

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 07/01/2004
Action: Closure/No Further Action Letter

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 03/02/2004
Action: * No Action

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 01/22/2003
Action: * No Action

BERGLUND INC (Continued) **1000235881**

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 03/18/2015
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500032
Action Type: RESPONSE
Date: 10/17/2002
Action: Interim Remedial Action Report

Global Id: T0604500032
Action Type: ENFORCEMENT
Date: 06/04/2004
Action: Deed Restriction / Land Use Restriction / Covenant

LUST:
Global Id: T0604500032
Status: Open - Case Begin Date
Status Date: 06/02/1988

Global Id: T0604500032
Status: Open - Site Assessment
Status Date: 06/02/1988

Global Id: T0604500032
Status: Open - Site Assessment
Status Date: 07/11/1988

Global Id: T0604500032
Status: Open - Site Assessment
Status Date: 08/08/1988

Global Id: T0604500032
Status: Open - Site Assessment
Status Date: 05/10/1990

Global Id: T0604500032
Status: Open - Remediation
Status Date: 04/24/2002

Global Id: T0604500032
Status: Open - Verification Monitoring
Status Date: 05/11/2004

Global Id: T0604500032
Status: Completed - Case Closed
Status Date: 07/01/2004

LUST REG 1:
Region: 1
Facility ID: 1TMC037
Staff Initials: CSH

DEED:
Envirostor ID: T0604500032

BERGLUND INC (Continued) **1000235881**

Area: Not reported
Sub Area: Not reported
Site Type: LUFT
Status: COMPLETED - CASE CLOSED
Agency: SWRCB
Covenant Uploaded: Y
Deed Date(s): 06/04/2004
File Name: Geotracker Land Use/Deed Restrictions

RCRA NonGen / NLR:
Date form received by agency: 07/01/1992
Facility name: BERGLUND INC
Facility address: 1600 S MAIN
WILLITS, CA 95490
EPA ID: CAD981441645
Mailing address: PO BOX 2089
NAPA, CA 94558
Contact: ENVIRONMENTAL MANAGER
Contact address: 1600 S MAIN
WILLITS, CA 95490
Contact country: US
Contact telephone: 707-459-5575
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: BERGLUND INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

BERGLUND INC (Continued) **1000235881**

Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	03/30/1992
Site name:	PETERSON TRACTOR CO.
Classification:	Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002706769

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1000235881
Registry ID:	110002706769
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002706769

HIST CORTESE:

Region:	CORTESE
Facility County Code:	23
Reg By:	LTNKA
Reg Id:	1TMC037

G33 **BERGLUND CATERPILLAR TRACTOR** **ENVIROSTOR** **S101481178**
WSW **1600 S MAIN** **N/A**
1/4-1/2 **WILLITS, CA 95490**
0.416 mi.
2199 ft. **Site 3 of 3 in cluster G**

Relative:
Higher

Actual:
1414 ft.

ENVIROSTOR:

Facility ID:	23350002
Status:	Refer: RWQCB
Status Date:	09/27/1993
Site Code:	Not reported
Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	02
Senate:	02
Special Program:	* Rural County Survey Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	39.39185
Longitude:	-123.3480
APN:	00713004
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	00713004
Alias Type:	APN
Alias Name:	110002706769
Alias Type:	EPA (FRS #)
Alias Name:	23350002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	07/27/1988
Comments:	SITE SCREENING DONE MEMO TO FILE 2/18/83 - PCB 16,000 PPB IN OIL SUMP & 0.07 IN POND. SEND Q
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	06/09/1988
Comments:	FACILITY IDENTIFIED MENDOCINO CO. ENV HLTH
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported

BERGLUND CATERPILLAR TRACTOR (Continued) **S101481178**

Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

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34 **BROWN'S, INC** **LUST** **S101588579**
SW **1799 S MAIN ST** **HIST UST** **N/A**
1/4-1/2 **WILLITS, CA 95490** **CA FID UST**
0.446 mi. **ENF**
2356 ft. **HIST CORTESE**

Relative: Higher
Actual: 1449 ft.

LUST:
Lead Agency: NORTH COAST RWQCB (REGION 1)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500306
Global Id: T0604500306
Latitude: 39.3883194503978
Longitude: -123.345410227776
Status: Completed - Case Closed
Status Date: 04/18/2013
Case Worker: ZZZ
RB Case Number: 1TMC374
Local Agency: MENDOCINO COUNTY
File Location: Regional Board
Local Case Number: Not reported
Potential Media Affect: Aquifer used for drinking water supply, Other Groundwater (uses other than drinking water), Soil, Sur
Potential Contaminants of Concern: MTBE / TBA / Other Fuel Oxygenates, Gasoline
Site History: In January of 2000 three 10,000-gallon gasolline underground storage tanks (UST) were excavated and removed from the property. MTBE found in groundwater. Investigation and remediation is ongoing.

LUST:
Global Id: T0604500306
Contact Type: Regional Board Caseworker
Contact Name: REGIONAL WATER BOARD SITE CLOSED
Organization Name: NORTH COAST RWQCB (REGION 1)
Address: 5550 SKYLANE BOULEVARD, SUITE A
City: SANTA ROSA
Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/19/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/08/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 02/07/2013
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE

BROWN'S, INC (Continued) **S101588579**

Date: 05/15/2009
Action: Other Report / Document

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 07/06/2009
Action: File Review - Closure

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 01/03/2007
Action: * No Action

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 09/30/2010
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/07/2003
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 10/03/2002
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/05/2004
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/30/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 12/28/2005
Action: * No Action

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 06/05/2006
Action: File review

Global Id: T0604500306
Action Type: Other
Date: 12/23/1997
Action: Leak Reported

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 08/02/2006
Action: Staff Letter

BROWN'S, INC (Continued) **S101588579**

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/26/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/05/2012
Action: Notification - Public Notice of Case Closure

Global Id: T0604500306
Action Type: Other
Date: 12/23/1997
Action: Leak Discovery

Global Id: T0604500306
Action Type: RESPONSE
Date: 03/28/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 03/03/2013
Action: Well Destruction Workplan - Regulator Responded

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 08/13/2004
Action: Soil and Water Investigation Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 07/28/2010
Action: Other Report / Document

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/05/2012
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 01/16/2013
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE

BROWN'S, INC (Continued) **S101588579**

Date: 03/16/2007
Action: Soil and Water Investigation Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 06/05/2006
Action: Soil and Water Investigation Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 01/03/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/30/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2011
Action: Electronic Reporting Submittal Due

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 07/31/2009
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE
Date: 07/23/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 01/13/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0604500306
Action Type: RESPONSE
Date: 05/31/2012
Action: Soil and Water Investigation Report

BROWN'S, INC (Continued) **S101588579**

Global Id: T0604500306
Action Type: RESPONSE
Date: 03/16/2012
Action: Verbal Communication

Global Id: T0604500306
Action Type: RESPONSE
Date: 02/27/2004
Action: Soil and Water Investigation Workplan

Global Id: T0604500306
Action Type: RESPONSE
Date: 12/12/2003
Action: Other Report / Document

Global Id: T0604500306
Action Type: RESPONSE
Date: 12/12/2003
Action: Electronic Reporting Submittal Due

Global Id: T0604500306
Action Type: RESPONSE
Date: 12/12/2003
Action: Sensitive Receptor Survey Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 09/15/2004
Action: Other Workplan

Global Id: T0604500306
Action Type: RESPONSE
Date: 07/01/2005
Action: Electronic Reporting Submittal Due

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 10/12/2010
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 01/01/2009
Action: Well Installation Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2008
Action: Monitoring Report - Annually

Global Id: T0604500306
Action Type: RESPONSE

BROWN'S, INC (Continued) **S101588579**

Date: 10/31/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2008
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 05/18/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/26/2006
Action: Soil and Water Investigation Workplan

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 08/07/2012
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/18/2013
Action: Closure/No Further Action Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 01/29/2004
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 07/22/2004
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/19/2001
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 08/16/2002
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 02/27/2003
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE
Date: 01/03/2013
Action: Other Report / Document

BROWN'S, INC (Continued) **S101588579**

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 08/18/2004
Action: Site Visit / Inspection / Sampling

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 08/31/2004
Action: Staff Letter

Global Id: T0604500306
Action Type: Other
Date: 12/23/1997
Action: Leak Stopped

Global Id: T0604500306
Action Type: RESPONSE
Date: 11/20/2012
Action: Other Report / Document

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/15/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/17/2004
Action: * No Action

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 12/15/2004
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 11/14/2006
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 01/05/2007
Action: * No Action

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 09/15/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 07/14/2010
Action: Technical Correspondence / Assistance / Other

Global Id: T0604500306
Action Type: ENFORCEMENT

BROWN'S, INC (Continued) **S101588579**

Date: 02/28/2012
Action: Staff Letter

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 12/01/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0604500306
Action Type: RESPONSE
Date: 09/15/2001
Action: Preliminary Site Assessment Report

Global Id: T0604500306
Action Type: RESPONSE
Date: 11/07/2002
Action: Soil and Water Investigation Workplan

Global Id: T0604500306
Action Type: RESPONSE
Date: 03/27/2003
Action: Other Report / Document

Global Id: T0604500306
Action Type: RESPONSE
Date: 02/15/2003
Action: Other Report / Document

Global Id: T0604500306
Action Type: RESPONSE
Date: 12/06/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 10/01/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500306
Action Type: RESPONSE
Date: 05/01/2013
Action: Well Destruction Report

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/29/2009
Action: Site Visit / Inspection / Sampling

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 04/20/2009
Action: Staff Letter

BROWN'S, INC (Continued) **S101588579**

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 03/18/2011
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 01/13/2012
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 03/08/2012
Action: Staff Letter

Global Id: T0604500306
Action Type: REMEDIATION
Date: 01/01/2000
Action: Excavation

Global Id: T0604500306
Action Type: RESPONSE
Date: 04/30/2011
Action: Soil and Water Investigation Workplan

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 06/05/2008
Action: Staff Letter

Global Id: T0604500306
Action Type: ENFORCEMENT
Date: 09/12/2005
Action: Staff Letter

Global Id: T0604500306
Action Type: REMEDIATION
Date: 11/06/2008
Action: In Situ Physical/Chemical Treatment (other than SVE)

LUST:
Global Id: T0604500306
Status: Open - Case Begin Date
Status Date: 12/23/1997

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 12/29/1997

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 12/11/2000

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 04/19/2001

BROWN'S, INC (Continued) **S101588579**

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 02/10/2004

Global Id: T0604500306
Status: Open - Assessment & Interim Remedial Action
Status Date: 11/06/2008

Global Id: T0604500306
Status: Open - Verification Monitoring
Status Date: 03/25/2009

Global Id: T0604500306
Status: Open - Assessment & Interim Remedial Action
Status Date: 05/04/2009

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 08/06/2009

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 06/23/2010

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 11/08/2010

Global Id: T0604500306
Status: Open - Site Assessment
Status Date: 08/01/2012

Global Id: T0604500306
Status: Open - Verification Monitoring
Status Date: 08/17/2012

Global Id: T0604500306
Status: Open - Eligible for Closure
Status Date: 11/06/2012

Global Id: T0604500306
Status: Completed - Case Closed
Status Date: 04/18/2013

LUST REG 1:
Region: 1
Facility ID: 1TMC374
Staff Initials: BAR

HIST UST:
File Number: 000295ED
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/000295ED.pdf
Region: Not reported
Facility ID: Not reported
Facility Type: Not reported

BROWN'S, INC (Continued) **S101588579**

Other Type: Not reported
Contact Name: Not reported
Telephone: Not reported
Owner Name: Not reported
Owner Address: Not reported
Owner City,St,Zip: Not reported
Total Tanks: Not reported

Tank Num: Not reported
Container Num: Not reported
Year Installed: Not reported
Tank Capacity: Not reported
Tank Used for: Not reported
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Not reported

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 23000844
Regulated By: UTNKA
Regulated ID: 00014825
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7074594691
Mail To: Not reported
Mailing Address: 1799 S MAIN ST
Mailing Address 2: Not reported
Mailing City,St,Zip: WILLITS 95490
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

ENF:
Region: 1
Facility Id: 210590
Agency Name: Not reported
Place Type: Service/Commercial
Place Subtype: Service/Commercial Site, NEC
Facility Type: All other facilities
Agency Type: Not reported
Of Agencies: Not reported
Place Latitude: 39.387473
Place Longitude: -123.345147
SIC Code 1: Not reported
SIC Desc 1: Not reported
SIC Code 2: Not reported
SIC Desc 2: Not reported
SIC Code 3: Not reported
SIC Desc 3: Not reported
NAICS Code 1: Not reported

BROWN'S, INC (Continued) **S101588579**

NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	TANKS
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	226688
Region:	1
Order / Resolution Number:	Not reported
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	12/01/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	2000-12-11
Termination Date:	12/01/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical

BROWN'S, INC (Continued) **S101588579**

Title:	Enforcement - 1B1MC374NUG Browns Corner
Description:	SEL SENT 3/15/2000 REQUIRING WORKPLAN BY 5/31/00. NOT RECEIVED.
Program:	UST
Latest Milestone Completion Date:	2000-12-11
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

HIST CORTESE:

Region:	CORTESE
Facility County Code:	23
Reg By:	LTNKA
Reg Id:	1TMC374

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35 **TESORO #67118** **LUST** **S101298844**
WNW **1250 MAIN STREET, SOUTH** **Cortese** **N/A**
1/4-1/2 **WILLITS, CA 95490** **ENF**
0.483 mi. **HIST CORTESE**
2548 ft.

Relative:
Higher

Actual:
1393 ft.

LUST:

Lead Agency:	NORTH COAST RWQCB (REGION 1)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604500105
Global Id:	T0604500105
Latitude:	39.398915185
Longitude:	-123.34984525
Status:	Completed - Case Closed
Status Date:	10/05/2015
Case Worker:	ZZZ
RB Case Number:	1TMC120
Local Agency:	Not reported
File Location:	Regional Board
Local Case Number:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	In 1990, gasoline was found to be seeping into Baechtel Creek, east of this site. The gasoline was found to be discharging through the subsurface from the fueling system at this gas station. Measures were taken by the responsible party to abate the discharge to the creek and remove free product from groundwater. The extent of groundwater contamination has since been investigated and determined, and additional remedial measures have been taken to address residual groundwater contamination, which does extend off site to the east.

LUST:

Global Id:	T0604500105
Contact Type:	Regional Board Caseworker
Contact Name:	REGIONAL WATER BOARD SITE CLOSED
Organization Name:	NORTH COAST RWQCB (REGION 1)
Address:	5550 SKYLANE BOULEVARD, SUITE A
City:	SANTA ROSA

TESORO #67118 (Continued) **S101298844**

Email: craig.hunt@waterboards.ca.gov
Phone Number: 7075762220

LUST:
Global Id: T0604500105
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 08/19/2009
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/28/2012
Action: Monitoring Report - Annually

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 10/05/2015
Action: Closure/No Further Action Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 06/03/2002
Action: Waste Discharge Requirements - #R1-2001-9

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/13/2002
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/17/2002
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 01/30/2003
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 08/18/2006
Action: Meeting

Global Id: T0604500105
Action Type: Other
Date: 08/06/1990

TESORO #67118 (Continued) **S101298844**

Action: Leak Reported

Global Id: T0604500105
Action Type: REMEDIATION
Date: 10/01/1990
Action: Excavation

Global Id: T0604500105
Action Type: REMEDIATION
Date: 09/12/1990
Action: Free Product Removal

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 11/17/2010
Action: Staff Letter

Global Id: T0604500105
Action Type: RESPONSE
Date: 04/09/2015
Action: Other Workplan - Regulator Responded

Global Id: T0604500105
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 12/26/2006
Action: Other Workplan

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 04/13/2015
Action: Email Correspondence

Global Id: T0604500105
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/09/2014
Action: Well Destruction Workplan - Regulator Responded

Global Id: T0604500105
Action Type: RESPONSE
Date: 11/05/2010
Action: Interim Remedial Action Plan

TESORO #67118 (Continued) **S101298844**

Global Id: T0604500105
Action Type: Other
Date: 08/06/1990
Action: Leak Discovery

Global Id: T0604500105
Action Type: Other
Date: 08/06/1990
Action: Leak Stopped

Global Id: T0604500105
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/28/2011
Action: Monitoring Report - Annually

Global Id: T0604500105
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: REMEDIATION
Date: 03/01/1994
Action: Pump & Treat (P&T) Groundwater

Global Id: T0604500105
Action Type: RESPONSE
Date: 03/02/2005
Action: Other Workplan

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/28/2010
Action: Monitoring Report - Annually

Global Id: T0604500105
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 04/30/2008
Action: Other Report / Document

Global Id: T0604500105
Action Type: RESPONSE

TESORO #67118 (Continued) **S101298844**

Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/23/2004
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 04/19/2004
Action: * Verbal Communication

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/14/2004
Action: Meeting

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 06/17/2004
Action: * No Action

Global Id: T0604500105
Action Type: RESPONSE
Date: 07/16/2004
Action: Interim Remedial Action Plan

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/29/2004
Action: Interim Remedial Action Plan

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/07/2004
Action: Other Report / Document

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 01/16/2003
Action: Meeting

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/28/2013
Action: Monitoring Report - Annually

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 06/30/2015
Action: Technical Correspondence / Assistance / Other

TESORO #67118 (Continued) **S101298844**

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 09/04/2013
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 07/06/2004
Action: * Verbal Communication

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/23/2004
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 07/16/2004
Action: * No Action

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/08/2010
Action: Interim Remedial Action Report

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/28/2005
Action: * Verbal Communication

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 10/07/2009
Action: Staff Letter

Global Id: T0604500105
Action Type: RESPONSE
Date: 02/27/2015
Action: Other Workplan - Regulator Responded

Global Id: T0604500105
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 01/15/2003
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT

TESORO #67118 (Continued) **S101298844**

Date: 01/28/2004
Action: * Verbal Communication

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 05/01/1998
Action: 13267 Monitoring Program - #M&R 97-70

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 10/04/2001
Action: Waste Discharge Requirements - #R1-2001-9

Global Id: T0604500105
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 05/07/2003
Action: CAP/RAP - Feasibility Study Report

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/04/2003
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 01/16/2003
Action: Site Visit / Inspection / Sampling

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/04/2003
Action: File review

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 05/29/2003
Action: Staff Letter

TESORO #67118 (Continued) **S101298844**

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/19/2009
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/19/2009
Action: 13267 Monitoring Program - #R1-2009-0020

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/11/2008
Action: Meeting

Global Id: T0604500105
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 02/28/2007
Action: Staff Letter

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 10/07/2004
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 12/26/2006
Action: * No Action

Global Id: T0604500105
Action Type: ENFORCEMENT
Date: 07/26/2004
Action: * Verbal Communication

Global Id: T0604500105
Action Type: REMEDIATION
Date: 03/01/1994
Action: Soil Vapor Extraction (SVE)

LUST:
Global Id: T0604500105

TESORO #67118 (Continued) **S101298844**

Status: Open - Case Begin Date
Status Date: 08/06/1990

Global Id: T0604500105
Status: Open - Site Assessment
Status Date: 08/23/1990

Global Id: T0604500105
Status: Open - Site Assessment
Status Date: 09/04/1990

Global Id: T0604500105
Status: Open - Site Assessment
Status Date: 12/19/1990

Global Id: T0604500105
Status: Open - Remediation
Status Date: 10/22/1997

Global Id: T0604500105
Status: Open - Remediation
Status Date: 03/30/1998

Global Id: T0604500105
Status: Open - Eligible for Closure
Status Date: 07/25/2013

Global Id: T0604500105
Status: Completed - Case Closed
Status Date: 10/05/2015

LUST REG 1:
Region: 1
Facility ID: 1TMC120
Staff Initials: CSH

CORTESE:
Region: CORTESE
Envirostor Id: Not reported
Site/Facility Type: Not reported
Cleanup Status: Not reported
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: CORTESE
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: 03/24/1994
Region 2: 1
WID Id: 1B94006NMEN
Solid Waste Id No: Not reported

TESORO #67118 (Continued) **S101298844**

Waste Management Uit Name: Not reported
File Name: Cease Desist Orders & Cleanup Abatement Orders

ENF:

Region:	1
Facility Id:	263249
Agency Name:	Not reported
Place Type:	Service/Commercial
Place Subtype:	Gasoline Service Station
Facility Type:	Industrial
Agency Type:	Not reported
# Of Agencies:	Not reported
Place Latitude:	39.399171
Place Longitude:	-123.349599
SIC Code 1:	5541
SIC Desc 1:	Gasoline Service Stations
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Enf Action
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	NPDESWW
# Of Programs:	Not reported
WDID:	Not reported
Reg Measure Id:	Not reported
Reg Measure Type:	Not reported
Region:	Not reported
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Not reported
Status Date:	Not reported
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported

TESORO #67118 (Continued) **S101298844**

WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Not reported
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Not reported
Enforcement Id(EID):	224482
Region:	1
Order / Resolution Number:	90-177
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	08/30/1990
Adoption/Issuance Date:	08/30/1990
Achieve Date:	Not reported
Termination Date:	10/05/2015
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 1B94006NMEN Tesoro Refining #67118
Description:	FRESH GASOLINE DISCHARGING INTO BAECHTEL CR. CAO REQUESTS IMMEDIATE CLEANUP & ABATEMENT OF DISCHARGE
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	$0.00
Initial Assessed Amount:	$0.00
Liability $ Amount:	$0.00
Project $ Amount:	$0.00
Liability $ Paid:	$0.00
Project $ Completed:	$0.00
Total $ Paid/Completed Amount:	$0.00

HIST CORTESE:

Region:	CORTESE
Facility County Code:	23
Reg By:	LTNKA
Reg Id:	1TMC120

Region:	CORTESE
Facility County Code:	23
Reg By:	WBC&D
Reg Id:	1B94006NMEN

36
SSW
1/4-1/2
0.488 mi.
2579 ft.

CDF MENDOCINO RANGER HEADQUARTERS **LUST** **S103393061**
HIGHWAY 101, NORTH 17501 **N/A**
WILLITS, CA

Relative:
Higher

Actual:
1441 ft.

LUST REG 1:

Region:	1
Facility ID:	1TMC393
Staff Initials:	CSH

37
NW
1/2-1
0.662 mi.
3494 ft.

REMCO HYDRAULICS, INC.
934 SOUTH MAIN STREET
WILLITS, CA 93629

Notify 65 **U000069214**
N/A

Relative:
Higher

Actual:
1389 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

38
NW
1/2-1
0.712 mi.
3759 ft.

ABEX CORPORATION
SOUTH MAIN STREET
WILLITS, CA 95490

ENVIROSTOR **S101481176**
N/A

Relative:
Lower

Actual:
1387 ft.

ENVIROSTOR:

Facility ID:	23340001
Status:	Refer: RWQCB
Status Date:	09/27/1993
Site Code:	Not reported
Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	Not reported
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	39.40304
Longitude:	-123.3520
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	* ORGANIC LIQUIDS WITH METALS * ACID SOLUTION 2>PH WITH METALS * UNSPECIFIED ACID SOLUTION * UNSPECIFIED OIL CONTAINING WASTE * WASTE OIL & MIXED OIL Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	I C CORPORATION (ABEX SUBSIDIARY)
Alias Type:	Alternate Name
Alias Name:	REMCO
Alias Type:	Alternate Name
Alias Name:	CAD000097287
Alias Type:	EPA Identification Number
Alias Name:	201259
Alias Type:	Site Code - Historical
Alias Name:	23340001
Alias Type:	Envirostor ID Number

ABEX CORPORATION (Continued) **S101481176**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	07/27/1988
Comments:	SITE SCREENING DONE EPA/CERCLIS SITE
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	06/11/1987
Comments:	SITE SCREENING DONE STARTED AS MACHINE SHOP BY HARRAH BROS
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	06/15/1988
Comments:	FACILITY IDENTIFIED 1970 MFG DIR - LISTED AS REMCO HYDRAULIC
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

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39 **UNION OIL** **ENVIROSTOR** **S100181645**
NNW **229 E SAN FRANCISCO AVENUE** **N/A**
1/2-1 **WILLITS, CA 95490**
0.816 mi.
4306 ft.

Relative: **Lower**

Actual: **1370 ft.**

ENVIROSTOR:

Facility ID:	23510002
Status:	Refer: RWQCB
Status Date:	07/27/1988
Site Code:	Not reported
Site Type:	Historical
Site Type Detailed:	* Historical
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Berkeley
Assembly:	02
Senate:	02
Special Program:	* Rural County Survey Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	39.40722
Longitude:	-123.3480

UNION OIL (Continued) **S100181645**

APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: WILLITS COMMUNITY FOOD BANK
Alias Type: Alternate Name
Alias Name: 23510002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 07/27/1988
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 07/27/1988
Comments: FACILITY IDENTIFIED 1926 PHONE DIRECTORY FACILITY DRIVE-BY SITE PATIALLY PAVED, NEXT TO RR SITE SCREENING DONE POSS ON-SITE CONTAM. SEND Q BULK OIL

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
WILLITS	S105180856	LOUISIANA PACIFIC WILLITS	REDWOOD HIGHWAY, NORTH	0	SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/12/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 48

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 31

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 15
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/25/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/13/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/01/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 78
Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/02/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/26/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/14/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 10/06/2017
Number of Days to Update: 71

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2016
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 05/05/2017
Number of Days to Update: 98

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 02/15/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/11/2017
Next Scheduled EDR Contact: 01/22/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/02/2017
Date Data Arrived at EDR: 10/05/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 8
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 11/10/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 63

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 92

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 28

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 01/02/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/27/2017
Date Data Arrived at EDR: 11/21/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 30

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 42

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 54

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/16/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 46

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/08/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 41

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 41
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/09/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/29/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 29
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 42
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 35
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 32
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/12/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 02/22/2018
Number of Days to Update: 42

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 63

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 10

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/25/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/26/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/26/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 14

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/20/2017
Date Data Arrived at EDR: 11/29/2017
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 51

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/05/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 40

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/06/2017
Date Made Active in Reports: 12/27/2017
Number of Days to Update: 21

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 54

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/16/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 29
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 01/17/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 28
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/10/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/22/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 40

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 12

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/12/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 15

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 20
Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 30
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/31/2018
Date Data Arrived at EDR: 02/01/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 41
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 49
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 35
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 50

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/15/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 50

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 64

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/05/2018
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 42

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 46

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 12/04/2017
Date Data Arrived at EDR: 12/05/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 37

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/02/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 02/01/2018
Number of Days to Update: 42

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 28
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 29
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/04/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 42

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 28

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 16

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 41

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 37

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/30/2018
Number of Days to Update: 29

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/26/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 09/27/2017
Date Data Arrived at EDR: 09/28/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 18

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 50

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 48

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/22/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/30/2018
Number of Days to Update: 16
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 10
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/22/2018
Number of Days to Update: 36
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/05/2018
Next Scheduled EDR Contact: 04/23/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/09/2018
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/16/2018
Next Scheduled EDR Contact: 04/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

EAST HILL ROAD
EAST HILL ROAD
WILLITS, CA 95490

TARGET PROPERTY COORDINATES

Latitude (North):	39.394349 - 39° 23' 39.66''
Longitude (West):	123.339012 - 123° 20' 20.44''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	470807.2
UTM Y (Meters):	4360385.5
Elevation:	1388 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5602906 WILLITS, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

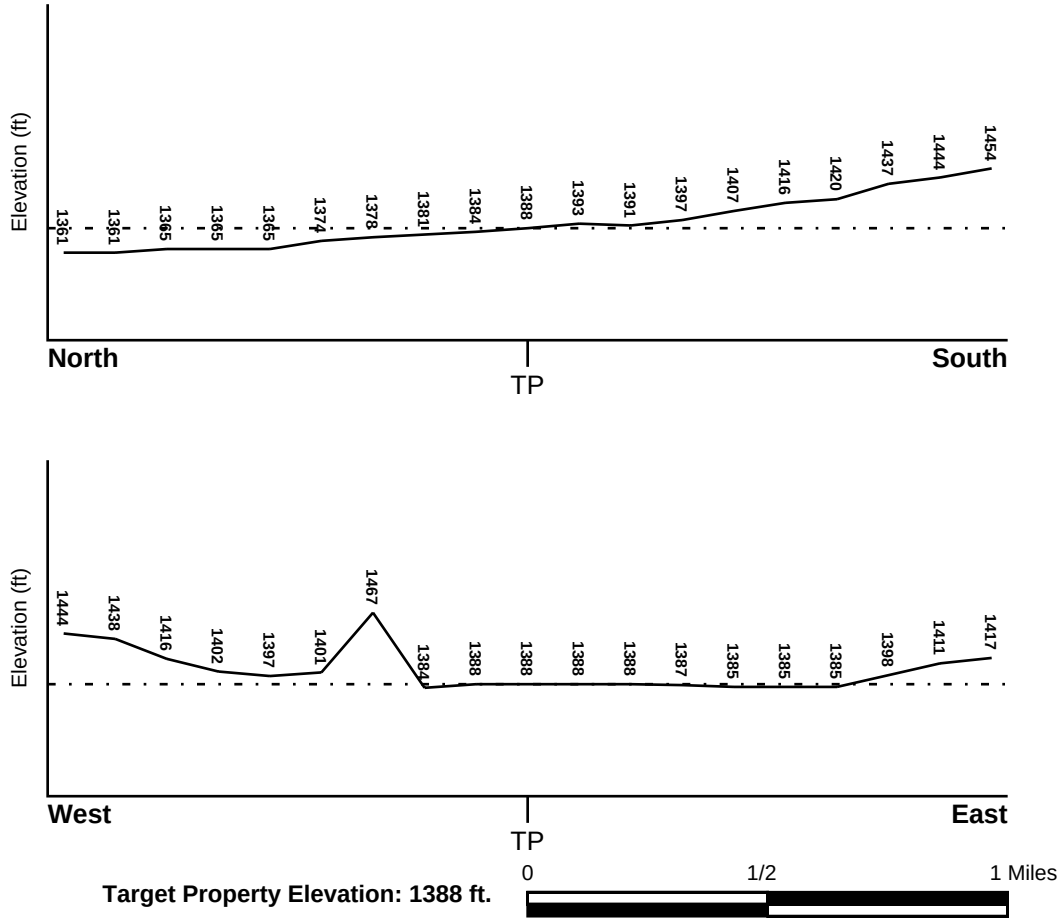
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06045C1114F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06045C1111F	FEMA FIRM Flood data
06045C1112F	FEMA FIRM Flood data
06045C1113F	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

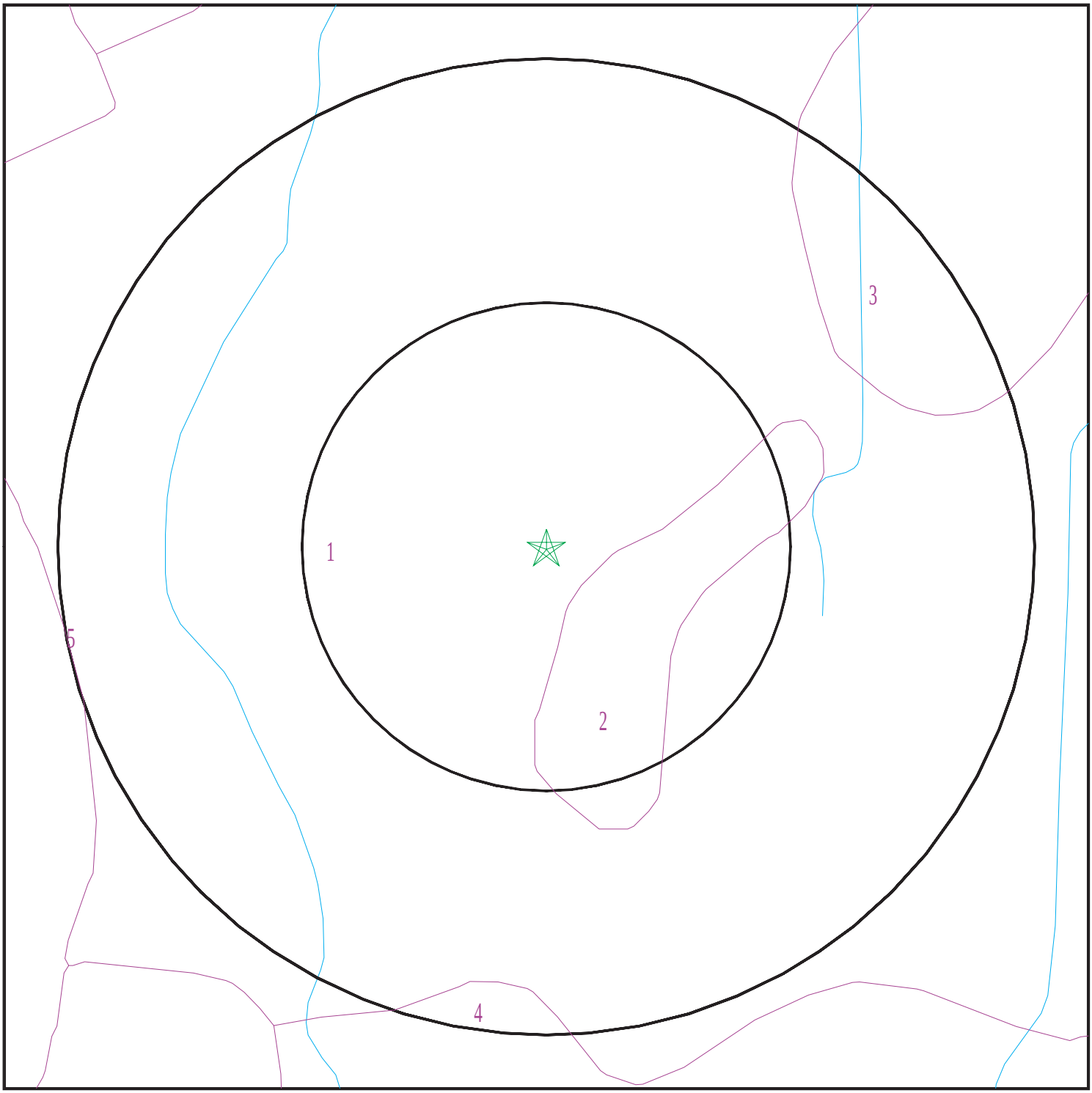
Era:	Mesozoic
System:	Cretaceous
Series:	Upper Mesozoic
Code:	uMze*(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5250926.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	East Hill Road	CLIENT:	SHN Consulting Engineers
ADDRESS:	East Hill Road Willits CA 95490	CONTACT:	Diana Ward
LAT/LONG:	39.394349 / 123.339012	INQUIRY #:	5250926.2s
		DATE:	April 09, 2018 0:34 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: GIELOW

Soil Surface Texture:
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 6.5 Min: 5.6
2	3 inches	11 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 5.6
3	11 inches	59 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.3 Min: 5.6

Soil Map ID: 2

Soil Component Name: XEROCHREPTS

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 6.1
2	11 inches	35 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	35 inches	72 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 6.1

Soil Map ID: 3

Soil Component Name: COLE

Soil Surface Texture:

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 69 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches		Not reported	Not reported	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
2	7 inches	40 inches		Not reported	Not reported	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	40 inches	59 inches		Not reported	Not reported	Max: 1.4 Min: 0.42	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: FELIZ

Soil Surface Texture:
Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 6.1
2	7 inches	25 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	25 inches	61 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 6.6

Soil Map ID: 5

Soil Component Name: HAPLOXERALFS

Soil Surface Texture:
Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 7.8 Min: 5.1
2	3 inches	29 inches		Not reported	Not reported	Max: 14 Min: 4	Max: 7.8 Min: 5.1
3	29 inches	37 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 7.8 Min: 5.1
4	37 inches	59 inches		Not reported	Not reported	Max: 42 Min: 14	Max: 7.8 Min: 5.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000192836	1/8 - 1/4 Mile SSW
2	USGS40000192840	1/4 - 1/2 Mile West
3	USGS40000192825	1/4 - 1/2 Mile SSE
4	USGS40000192846	1/4 - 1/2 Mile WNW
5	USGS40000192831	1/4 - 1/2 Mile ESE
6	USGS40000192859	1/2 - 1 Mile NW
A7	USGS40000192834	1/2 - 1 Mile ESE
A8	USGS40000192835	1/2 - 1 Mile ESE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
9	USGS40000192868	1/2 - 1 Mile NE
10	USGS40000192854	1/2 - 1 Mile ENE
11	USGS40000192877	1/2 - 1 Mile NNW
12	USGS40000192865	1/2 - 1 Mile NE
13	USGS40000192885	1/2 - 1 Mile NNE
14	USGS40000192847	1/2 - 1 Mile West
B15	USGS40000192848	1/2 - 1 Mile ENE
B16	USGS40000192851	1/2 - 1 Mile ENE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

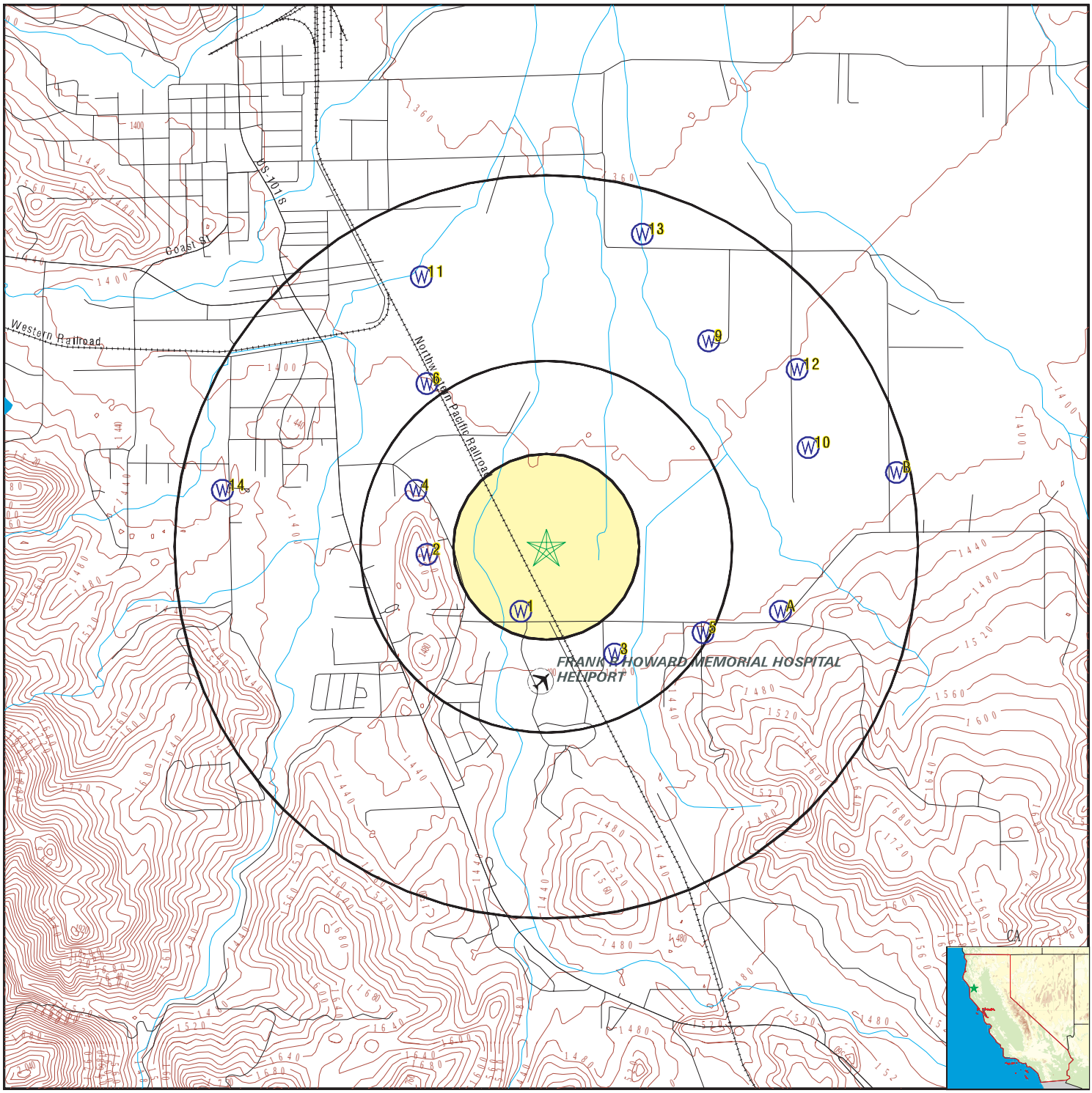
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 5250926.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: East Hill Road	CLIENT: SHN Consulting Engineers
ADDRESS: East Hill Road	CONTACT: Diana Ward
Willits CA 95490	INQUIRY #: 5250926.2s
LAT/LONG: 39.394349 / 123.339012	DATE: April 09, 2018 0:34 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SSW **FED USGS** **USGS40000192836**
1/8 - 1/4 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392331123202101		
Monloc name:	018N013W30A001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3918306
Longitude:	-123.3402874	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1395
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	17
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 2

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-03-05	4.34		1982-01-15	5.58	

2
West **FED USGS** **USGS40000192840**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392339123203801		
Monloc name:	018N013W19K001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3940528
Longitude:	-123.3450098	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1395
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	16
Welldepth units:	ft	Wellholedepth:	22
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 4

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-03-05	3.90		1981-12-07	5.01	
1981-08-20	14.79		1981-06-18	11.0	

3
SSE **FED USGS** **USGS40000192825**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392325123200401		
Monloc name:	018N013W29D001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.390164
Longitude:	-123.3355651	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1395
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19240101	Welldepth:	20
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 3

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-08-20	10.00		1982-03-05	2.25	
1982-01-15	2.70				

4
WNW **FED USGS** **USGS40000192846**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392348123204001		
Monloc name:	018N013W19L001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3965528
Longitude:	-123.3455654	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1400
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	17
Welldepth units:	ft	Wellholedepth:	30
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 4

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-03-05	4.2		1981-12-07	6.0	
1981-08-20	10.25		1981-06-18	8.65	

5
ESE **FED USGS** **USGS40000192831**
1/4 - 1/2 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392328123194801		
Monloc name:	018N013W29C001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3909972
Longitude:	-123.3311206	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1413
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	73
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 3

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-07					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1981-08-21					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1981-06-18					
Note: The site was flowing, but the head could not be measured without additional equipment.					

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

6
NW
1/2 - 1 Mile
Lower

FED USGS **USGS40000192859**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392403123203801		
Monloc name:	018N013W19G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.4007192
Longitude:	-123.3450098	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1379
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19500915	Welldepth:	197
Welldepth units:	ft	Wellholedepth:	197
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A7
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000192834**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392331123193401		
Monloc name:	018N013W20P001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3918305
Longitude:	-123.3272317	Sourcemap scale:	24000
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A8
ESE **FED USGS** **USGS40000192835**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392331123193402		
Monloc name:	018N013W20P002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3918305
Longitude:	-123.3272317	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1410
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19470520	Welldepth:	95
Welldepth units:	ft	Wellholedepth:	95
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 6

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-12-07					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1981-09-23					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1981-09-02					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1958-05-12					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1956-10-10					
Note: The site was flowing, but the head could not be measured without additional equipment.					
1955-07-14					
Note: The site was flowing, but the head could not be measured without additional equipment.					

9
NE **FED USGS** **USGS40000192868**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392409123194701		
Monloc name:	018N013W20C001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.4023857
Longitude:	-123.330843	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1367
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19761004	Welldepth:	35
Welldepth units:	ft	Wellholedepth:	35
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 7

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-08-20	7.75		1982-03-05	0.37	
1981-12-08	0.37		1981-10-26	10.79	
1981-08-21	6.8		1981-08-20	7.1	
1981-06-18	3.6				

10
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000192854**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392354123192901		
Monloc name:	018N013W20K001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3982191
Longitude:	-123.3258429	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1385
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19550101	Welldepth:	59
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 4

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-03-05	0.4		1981-12-08	2.28	
1981-10-26	15.44		1981-07-22	11.65	

11
NNW **FED USGS** **USGS40000192877**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392418123203901		
Monloc name:	018N013W19B001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.4048858
Longitude:	-123.3452877	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1365
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19520821	Welldepth:	260
Welldepth units:	ft	Wellholedepth:	454
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 9

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-08-20	38.80		1982-04-12	30.90	
1982-03-05	31.45		1981-12-08	33.75	
1981-09-03	42.9		1960-03-03	33.7	
1959-09-29	61.8				
Note: The site was being pumped.					
1958-05-13	58.5				
Note: The site was being pumped.					
1954-07-14	182.5				
Note: The site was being pumped.					

12
NE **FED USGS** **USGS40000192865**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392405123193101		
Monloc name:	018N013W20G001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.4012746
Longitude:	-123.3263985	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1380
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	9
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 4

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1982-03-05	0.38		1981-12-08	0.54	
1981-10-26	7.89		1981-07-22	3.95	

13
NNE
1/2 - 1 Mile
Lower

FED USGS **USGS40000192885**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392424123195901		
Monloc name:	018N013W17N001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.4065522
Longitude:	-123.3341764	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1360
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19750807	Welldepth:	80
Welldepth units:	ft	Wellholedepth:	80
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

14
West
1/2 - 1 Mile
Higher

FED USGS **USGS40000192847**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392348123211501		
Monloc name:	018N014W24J001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3965529
Longitude:	-123.3552877	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1430
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19770725	Welldepth:	74
Welldepth units:	ft	Wellholedepth:	74
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B15
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000192848**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392350123191301		
Monloc name:	018N013W20J001M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.397108
Longitude:	-123.3213984	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1395
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	19780421	Welldepth:	37
Welldepth units:	ft	Wellholedepth:	37
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

B16
ENE **FED USGS** **USGS40000192851**
1/2 - 1 Mile
Higher

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-392351123191301		
Monloc name:	018N013W20J002M		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18010103	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	39.3973858
Longitude:	-123.3213984	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1395
Vert measure units:	feet	Vertacc measure val:	20
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19720817	Welldepth:	62
Welldepth units:	ft	Wellholedepth:	62
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95490	8	0

Federal EPA Radon Zone for MENDOCINO County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 95490

Number of sites tested: 2

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	-0.050 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.200 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

Completed Questionnaires

5

Site Assessment Questionnaire

Question	Owner			Occupant (if applicable)			Observed During Site Visit		
1. Is the property or any adjoining property used for an industrial use?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments: West boundary is abandoned railroad								
2. To the best of your knowledge, has the property or any adjoining property been occupied by an industrial use in the past?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
3. Is the property or any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment storage, disposal, processing, or recycling facility?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
4. To the best of your knowledge has the property or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
5. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
6. Are there currently, or the best of your knowledge have there been previously, any industrial drums (typically 55 gal, 208 L) or sacks of chemicals located on the property or at the facility?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
7. Has fill dirt been brought on the property that originated from a contaminated site or that is of an unknown origin?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
8. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
9. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
10. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								

Question	Owner			Occupant (if applicable)			Observed During Site Visit		
11. Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
12. Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
13. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
14. Does the owner or of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
15. Has the owner or occupant or the property been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment for the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property, or recommend further assessment of the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
18. Does the property discharge wastewater on or adjacent to the property other than storm water into a sanitary sewer system?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
19. To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above ground, buried and/or burned on the property?	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
Question	Owner			Occupant (if applicable)			Observed During Site Visit		
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the	Yes	No ✓	Unk	Yes	No	Unk	Yes	No	Unk

presence of PCBs?	
	Comments:
21. What date did you purchase the property? 12/22/16	; and from whom? Margie Lee Hardy, Successor Trustee of the trust set up by the Trust Declaration of Leon C. Hardy
22. Any other pertinent information or contacts? NA	
This Owner questionnaire was completed by:	
Name: James Mitchell	
Title: Owner	
Firm: BEMCORE Enterprises Inc.	
Address: 31801 Sherwood Rd. Willits, CA 95490	
Phone Number: (707) 489-1080 (707) 354-1456	
Date: 4/30/18	
This Occupants questionnaire was completed by:	
Name:	
Title:	
Firm:	
Address:	
Phone Number:	
Date:	
This Observers questionnaire was completed by:	
Name:	
Title:	
Firm:	
Address:	
Phone Number:	
Date:	

Reference: ASTM E 1527

Site Assessment Questionnaire

Question	Owner			Occupant (if applicable)			Observed During Site Visit		
1. Is the property or any adjoining property used for an industrial use?	Yes	No	Unk	Yes	No	Unk	(Yes)	No	Unk
	Comments: ADJOINING PROPERTY TO WEST IS MICROPHOR, INC.								
2. To the best of your knowledge, has the property or any adjoining property been occupied by an industrial use in the past?	Yes	No	Unk	Yes	No	Unk	(Yes)	No	Unk
	Comments: MICROPHOR AND NORTHWESTERN PACIFIC RR TO WEST								
3. Is the property or any adjoining property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment storage, disposal, processing, or recycling facility?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
4. To the best of your knowledge has the property or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
5. Are there currently, or to the best of your knowledge have there been previously, any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of greater than 5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
6. Are there currently, or the best of your knowledge have there been previously, any industrial drums (typically 55 gal, 208 L) or sacks of chemicals located on the property or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
7. Has fill dirt been brought on the property that originated from a contaminated site or that is of an unknown origin?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
8. Are there currently, or to the best of your knowledge have there been previously, any pits, ponds, or lagoons located on the property in connection with waste treatment or waste disposal?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
9. Is there currently, or to the best of your knowledge has there been previously, any stained soil on the property?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								
10. Are there currently, or to the best of your knowledge have there been previously, any registered or unregistered storage tanks (above or underground) located on the property?	Yes	No	Unk	Yes	No	Unk	Yes	(No)	Unk
	Comments:								

NORTHWESTERN PACIFIC RAILROAD CORRIDOR IS THE ~ WESTERN ON PROPERTY BOUNDARY.

Question	Owner			Occupant (if applicable)			Observed During Site Visit		
11. Are there currently, or to the best of your knowledge have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the property or adjacent to any structure located on the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
12. Are there currently, or to the best of your knowledge have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
13. If the property is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
14. Does the owner or of the property have any knowledge of environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
15. Has the owner or occupant or the property been informed of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the property or any facility located on the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
16. Does the owner or occupant of the property have any knowledge of any environmental site assessment for the property or facility that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property, or recommend further assessment of the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
17. Does the owner or occupant of the property know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
18. Does the property discharge wastewater on or adjacent to the property other than storm water into a sanitary sewer system?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
19. To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above ground, buried and/or burned on the property?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								
Question	Owner			Occupant (if applicable)			Observed During Site		

							Visit		
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?	Yes	No	Unk	Yes	No	Unk	Yes	No	Unk
	Comments:								

21. What date did you purchase the property? ; and from whom?

22. Any other pertinent information or contacts?

This Owner questionnaire was completed by:

Name:

Title:

Firm:

Address:

Phone Number:

Date:

This Occupants questionnaire was completed by:

Name:

Title:

Firm:

Address:

Phone Number:

Date:

This Observers questionnaire was completed by:

Name: ANNA GOWER

Title: COMPLIANCE SPECIALIST

Firm: STN

Address: 812 WEST WABASH AVENUE
EUREKA, CALIFORNIA 95501

Phone Number: ~~707-50-0~~ 707-441-8855

Date: 30 APRIL 2018

Reference: ASTM E 1527

Phase I ESA User Questionnaire

This user questionnaire was prepared in general accordance with American Society for Testing and Materials-International (ASTM) "Standard E1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process."

Section I. Landowner Liability Protection Required Information

In order to qualify for one of the landowner liability protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments") the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

Question	Determination		
1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25). Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law?	Yes	No X	Unk
Comments:			
2. Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). Are you aware of any activity and use limitations (AULs) (such as, engineering controls, land use restrictions, or institutional controls) that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?	Yes X	No	Unk
Comments: Easement in favor of PG&E recorded in Book 262, Page 455, Mendocino County. The easement is 40' wide, traverses laterally across the south end of the property. Construction of structures is limited and can not be within 20' of the easement per terms of the document. *Confirming with PG&E on exact limitations.*			
3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). As the user of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	Yes	No x	Unk
Comments:			
4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.20). Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Yes X	No	Unk
Comments: *The purchase price has not been established; however, it is anticipated to be consistent with fair market value.*			
5. Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user,	Yes	No	Unk
a. Do you know the past uses of the property?			x
b. Do you know of specific chemicals that are present or once were present at the property?			x
c. Do you know of spills or other chemical releases that have taken place at the property?			x
d. Do you know of any environmental cleanups that have taken place at the property?			x
Comments:			

	Yes	No	Unk
6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.13). As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?		x	
Comments:			

Section II. Useful Information for Conducting the Phase I ESA

Please answer the following questions and provide the requested information. (This information is intended to assist the environmental professional but is not necessarily required to qualify for one of the LLPs.) The information includes:

1. Why is this Phase I ESA required?

The State of California requires a Phase 1 before it buys property. We use it to inform us on the condition of the property before purchase.

2. What type of property and property transaction is involved (for example, sale, purchase, exchange, etc.)?

State of California wants to purchase the property.

3. Provide the complete and correct address for the property. (Attaching a map or other documentation showing property location and boundaries is helpful, if available.)

APN – 007-160-18-00 and 007-100-28 - East Hill Rd. Willits CA.

4. Provide the scope of services desired for the Phase I (including whether any parties to the property transaction may have a required standard scope of services on whether any considerations beyond the requirements of Practice E 1527 are to be considered).

Contractor shall conduct a Phase I ESA for the Site in general accordance with ASTM-International (ASTM) Standard E1527-13 for Environmental Assessments and will be completed under the direct supervision of a California-registered geologist. Contractor shall perform the following:

- Conduct a site inspection of the subject property to identify visual evidence of surface contamination and potential subsurface sources of contamination.
- Conduct a survey of sites near the subject property to identify ones that may use, produce, or store hazardous materials and/or generate hazardous waste.
- Conduct interviews with regulatory authorities and/or people familiar with the use of the property.
- Examine aerial photographs of the property taken over the past 50 to 60 years; and review historic Sanborn Maps (if available), U.S. Geological Survey (USGS) topographic maps, and archived permit records and business (street) directories, as available. These examinations will seek to develop a continuous site history dating back to 1940 or the first known development of the property, whichever is earlier, as recommended by the ASTM guidelines.
- Using the ASTM-designated search radii, review federal, state, county, and other regulatory agency lists and databases (including Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS], National Priorities List [NPL], and Cal-sites) for sites with known hazardous materials contamination and/or registered underground storage tanks located on or near the property.
- Review regulatory agency files, if necessary, for identified contaminated sites to evaluate whether the listed sites are potential hazardous-material threats to the property.
- Review previous site investigations or ESAs for the subject parcel, if available.

- Identify existing or proposed municipal infrastructure for the property and vicinity, including potable water, wastewater, and storm-water provisions, as mandated by the ASTM guidelines.

- Describe local and regional geological and groundwater conditions in the area of the property.

- Complete a land-use questionnaire (supplied by Contractor).

- Provide photographs of the subject property and any areas of concern.

5. Please identify and provide contact information for all parties who will rely on the Phase I report.
   State of California
   Department of General Services
   Environmental Services Unit

6. Identify the site contact and provide contact information (name and phone number).
   a. James Mitchell james.springvalley@gmail.com

7. Are there any special terms and conditions that must be agreed upon by the environmental professional? ☐ Yes ☒ No If so, what are they?

8. Please provide any other knowledge or experience with the property that may be pertinent to the environmental professional (for example, copies of any available prior environmental site assessment reports, documents, correspondence, etc., concerning the property and its environmental condition).

Nothing that DGS knows about.

Completed by: __Stephanie Coleman_____ Date:_____5/9/18_____

Eureka, CA | Arcata, CA | Redding, CA | Willits, CA | Coos Bay, OR | Klamath Falls, OR

www.shn-engr.com

Noise Impact Assessment

California Conservation Corps, Willits Center Project

Willits, California

Prepared For:

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LIST OF ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CCC	California Conservation Corps
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
FHWA	Federal Highway Administration
IP	Industrial Park
LEED	Leadership in Energy and Environmental Design

LIST OF ACRONYMS AND ABBREVIATIONS

L_{max}	Maximum sound level
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
Project	California Conservation Corps, Willits Center Project
RMS	Root mean square
USEPA	U.S. Environmental Protection Agency
WEAL	Western Electro-Acoustic Laboratory, Inc.
ZNE	Zero Net Energy

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the California Conservation Corps (CCC) Willits Center Project (Project), which includes the development of a new CCC operations center in the City of Willits to accommodate relocation of existing operations at the CCC Ukiah Center. This assessment was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the Willits General Plan Noise Element. The purpose of this report is to estimate Project-generated noise and to determine the level of impact the Project would have on the environment.

1.1 Project Location and Description

The proposed Project is located on a 27.7-acre site is located at 440 East Hill Road in Willits, California. The Project site is comprised of two parcels located north of East Hill Road between the US Highway 101 bypass on the east and the former Northwestern Pacific Railroad corridor on the west. The site is currently undisturbed and undeveloped. The site is generally level with an approximately ten-foot change in elevation from south to north. The site supports natural habitats, including valley oak riparian and bent grass meadows. Drainages and tributaries, some of which are jurisdictional wetlands, are scattered throughout the Project site.

Existing adjacent uses include undeveloped lands to the north, East Hill Road followed by office to the south (Adventist Health Home Care Services), the Northwestern Pacific Railroad corridor followed by a warehouse use to the west, and Highway 101 to the east. The area is surrounded by rolling hills and the coastal mountain range.

The Project site is designated by the Town of Willits as Industrial General (M-G) and is zoned by the Town of Willits Zoning Code as Industrial Park (IP) and Heavy Industrial (MH). According to the Willits General Plan, the M-G designation is the land classification for land which is suited for a variety of industrial operations. Specific industrial uses allowed in M-G zone are defined by the Town's zoning code (Willits 1992). The IP is the zone utilized for a contiguous group of lots that are planned for industrial uses, having continuity of design and function and uniform or integrated standards of development established by contract, covenant or deed restriction. The MH zone is intended to apply to areas devoted to normal operations of industries, subject only to such regulations as are needed to control nuisances and protect surrounding areas (Willits 2019).

1.1.1 Proposed Project Components

The proposed CCC Willits Center Project would be constructed on 27.7 acres. The proposed Project would include approximately 64,238 square feet (sf) of total building space, 35,000 sf of solar panels, and 179,000 sf of paved concrete area. The Center's 64,238 sf of total building space would consist of an administration building, seven dormitories, an education building, a recreation building, a multi-purpose building with kitchen and dining room, a warehouse with work area and a hazardous materials storage room. The site will include asphalt paved surfaces for driveways and parking and concrete paving for service and staging areas and walkways. The Project also includes a paved emergency crew and vehicle staging area. The facility would be designed based on the prototype and CCC's residential needs to house

120 permanent corps members. The center is intended to be designed to Zero Net Energy (ZNE) per the Governor's Executive Order B-18-12 and achieve at minimum a Leadership in Energy and Environmental Design (LEED) Silver certification. Once completed, existing Ukiah Center CCC housing and training functions would be relocated to the Willits facility.

The Project components are explained below:

- **Building 1: 3,363 square foot administrative building.** This building would be in the southwest portion of the site near the Center's main entrance to facilitate visitor interactions. The administration building includes a reception area, offices for the District and Business Services Directors and staff, a conference room, work stations, records room, and restroom.
- **Building 2: 2,908 square feet of dormitories.** This building would consist of a row of six 2,908-square foot dormitories.
- **Building 3: 3,213 square foot COMET building.** This building would include 2 large men's and women's sleeping quarters with bunk beds for up to 36 people and accompanying restrooms/showers. Each dormitory would provide sleeping quarters for up to 16 Corpsmembers in three 4-person and two 2-person rooms and include bathroom and shower facilities.
- **Building 4: 13,604 square foot warehouse and work area.** This building would be located at the rear (north end) of the site. The warehouse would include a shop manager's office, a conservation work room with computer work stations, a laundry facility, a woodshop, and chain saw cleaning room. The warehouse would also serve as the receiving location for conservation program deliveries and supplies. A delivery dock would be located on the building's north end with ample adjacent warehouse and secure storage areas, including individual storage units for up to 6 Corpsmember crews.
- **Building 5: 14,656 square foot Multi-Purpose Building with Kitchen and Dining Room.** This building would be located to the northeast of the administration building, separated a parking lot. The multi-purpose building includes a 4,000-square foot multi-use court with associated storage areas and rest rooms, and a 714 square-foot kitchen and dining hall with seating for 120 persons. A delivery dock would be located on the building's northeast corner.
- **Building 6: 200 square foot Hazardous Materials Storage Building.** This small building will accommodate trash receptacles and a hazardous materials storage area.
- **Building 7: 6,268 square foot Education Building.** The education building would include 3 offices, 3 training rooms, a computer lab, library, restrooms, storage and support facilities.
- **Building 8: 5,498 square foot Recreation Building.** The recreation building would feature a large activity area and lounge. Also included are weight, T.V., reading, music, laundry, and gaming rooms, restrooms and storage and support facilities.
- **Solar Photovoltaic Array: 35,000 square feet (0.8 Acres).** 35,000 square feet of solar panels with a 488-kW rating would be installed to generate supplemental electrical power for the Center would be located north of the emergency staging area. The array would be comprised of 35,000

square feet of ground mounted photovoltaic cells along with the necessary inverter, combiners and metering to provide a minimum of 702,000 kWh annually.

- **Paved Area 1: 101,000 square feet of Paved Transportation Surfaces.** This portion of paved surfaces would be comprised of roads, sidewalks, driveways, and parking areas.
- **Paved Area 2: 78,000 square feet of other concrete paved areas.** This portion of paved surfaces would be for additional services, staging areas and connecting walkways.

Table 1 below summarizes the square footage for each of the proposed Project components:

Table 1. Project Statistics

Proposed Buildings/Facilities	Square Footage/Acreage
Project Site	27.7 acres
Administration Building	3,363 square feet
Housing/Dormitories	2,908 square feet (6 total dormitories)
COMET Building	3,213 square feet
Warehouse with Work Area	13,604 square feet
Multi-Purpose Building with Kitchen and Dining Room	14,656 square feet
Hazardous Materials Storage Building	200 square feet
Education Building	6,268 square feet
Recreation Building	5,498 square-feet
Solar Photovoltaic Array	Approximately 35,000 square feet or 0.8 Acres (488 kW rating)
Paved Transportation Surfaces (roads, sidewalks, driveways, and parking areas)	101,000 square-feet
Other Concrete Paved Areas (for additional service, staging areas and connecting walkways)	78,000 square feet
Total building square footage: 64,238 SF (approximately)	

1.1.2 Construction Phasing

Project construction activities are anticipated to begin in 2021, with an anticipated facility operational date in late 2023. Construction activities would take place between 7:00 a.m. and 7:00 p.m. Monday-Friday and, if necessary, between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. Construction would consist of the following primary phases.

- Phase 1: Mobilization and Site Layout. The construction team would set up the construction site, including perimeter fencing, and implement initial construction best management practices (BMPs) (such as fencing environmentally sensitive areas).
- Phase 2: Civil Site Preparation, Road Installation, and Receipt of Construction Materials. The construction team would conduct minor grading to smooth and contour the site, construct access

roads, install underground utilities, and prepare building sites. Materials needed for project construction would be received and stored onsite within construction staging areas.

- Phase 3: Building Construction. Buildings and special use areas such as the solar array and exercise trail located on the west side of the property would be constructed.
- Phase 4: Landscaping, Signage and Demobilization Activities. Landscaping and finishing work such as signage and fences would be installed. The construction team would conduct post-construction site restoration, including site cleanup activities, removal of all temporary facilities and fences, and implementation of post-construction BMPs.

Project grading is expected to be a balanced onsite. No import or export of soil is anticipated. Scrapers would cut and transport onsite soil within the Project site. Finish grading would be achieved by motor graders (blades) and skip loaders. Material excavation and compaction activities would be required primarily to install roads to meet fire and safety requirements. Throughout grading operations, water trucks would provide water to the site to achieve the proper moisture content for compaction and dust suppression. During times of excessive wind, grading would be stopped to control dust generation.

Underground utilities would be installed using standard underground utility trenching methods. Trenches would be excavated by hand or by a backhoe or similar excavation equipment. Underground utility placement would begin immediately following trench excavation, followed by back fill and compaction.

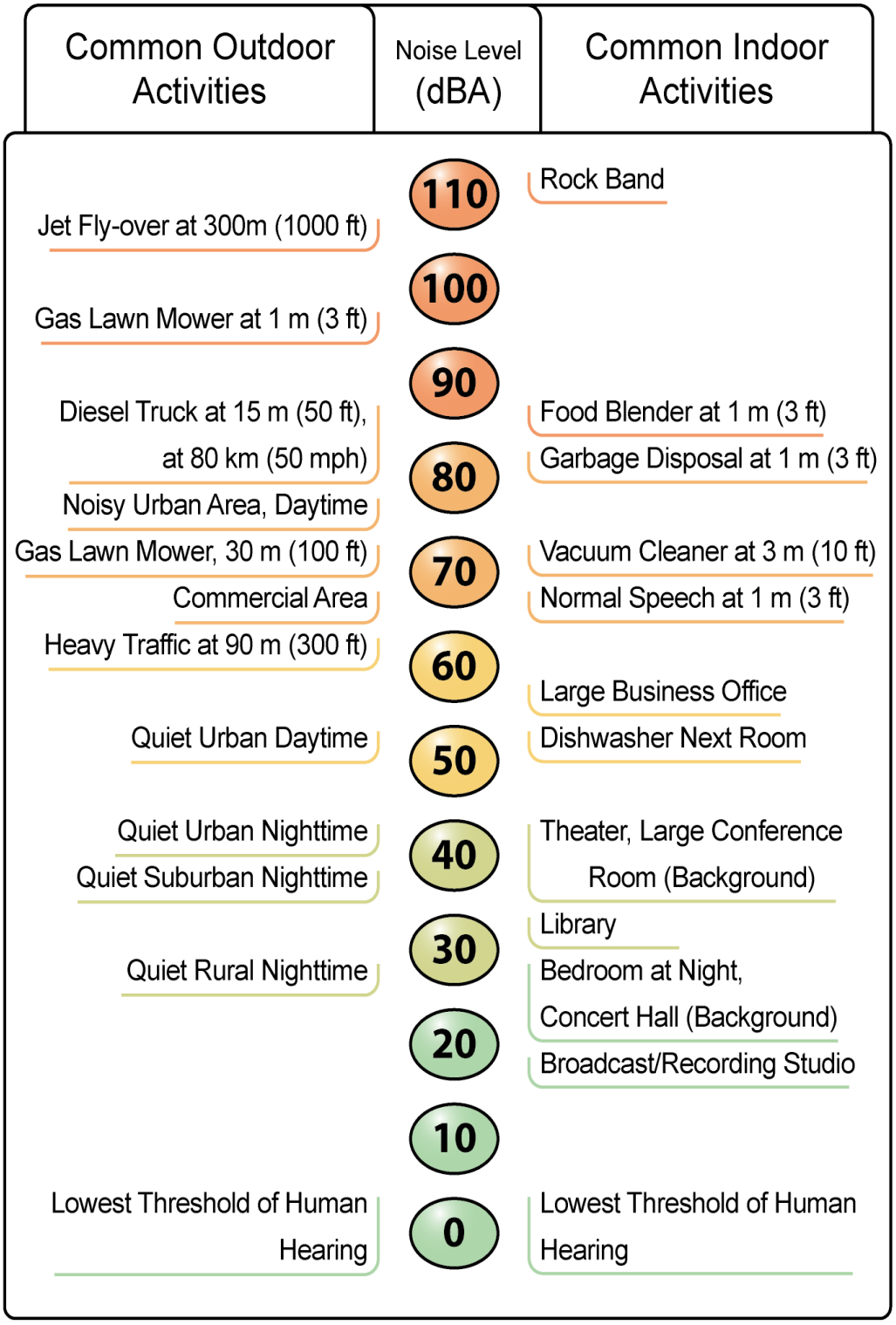
2.0 ENVIRONMENTAL NOISE

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (FTA 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Typical noise levels associated with common noise sources are depicted in Figure 1. *Common Noise Levels*.



Source: Caltrans 2012

Figure 1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (FHWA 2011). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2008), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend length-wise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

2.1.3 Noise Descriptors

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and Community Noise Equivalent Level (CNEL) are measures of community noise. Each is applicable to this analysis and defined in Table 2.

Table 2. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average Leq with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.4 dBA Ldn.
Community Noise Equivalent Level, CNEL	A 24-hour average Leq with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

The dBA sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus one dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The

accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about plus or minus one to two dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a three-dBA change is considered a just-perceivable difference.
- A change in level of at least five dBA is required before any noticeable change in community response would be expected. An increase of five dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable

level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. For ground vehicles, a noise level of about 55 dBA L_{dn} is the threshold at which a substantial percentage of people begin to report annoyance.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

2.2.2 Vibration Sources and Characteristics

Table 3 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care as vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of

0.006 PPV at 50 feet under typical circumstances, which as identified in Table 3 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earthmoving that requires the use of heavy-duty earthmoving equipment.

For the purposes of this analysis, the PPV descriptor with units of inches per second is used to evaluate construction-generated vibration for building damage and human complaints

Table 3. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/ second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Recommended upper level to which ruins and ancient monuments should be subjected
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Virtually no risk of architectural damage to normal buildings, yet threshold at which there is a risk of architectural damage to fragile buildings
0.2	94	Vibrations may begin to annoy people	Threshold at which there is a risk of architectural damage to normal dwellings
0.4–0.6	98–104	Vibrations considered unpleasant by people subjected to continuous vibrations	Architectural damage and possibly minor structural damage

Source: Caltrans 2013

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

Nearby noise-sensitive land uses consist of a senior apartment community just west of the northern boundary of the Project site, approximately 200 feet from the proposed development area, and a single-family residence, approximately 490 feet west of the Project site across Haehl Creek Drive. There is also a scattering of single-family residences located approximately 950 feet to the west of the Project site, across Baechtel Road.

3.2 Existing Ambient Noise Environment

The noise environment in the proposed Project area is impacted by various noise sources. Mobile sources of noise, especially cars and trucks traveling on Highway 101, are the most common and significant sources of noise in Project area. The Project area is also affected by the Northwestern Pacific Railroad corridor, which accommodates freight rail and traverses the western boundary of the Project site. Noise generated by freight rail is primarily generated by the train's steel wheels rolling on steel rails. This rolling noise increases in direct proportion to increases in train speed, and also increases substantially when impacts occur as train wheels traverse the rail gaps and joints of special trackwork for crossovers and turnouts. According to information derived from the North Coast Railroad Authority's(NCRA's) Russian River Division Freight Rail Project Draft Environmental Impact Report (2009), freight train service along the railroad line can consist of up to a total of two round-trip freight train operations per day, each including between 25 and 60 cars. Based on this information, predicted freight train noise levels in the Project area would be approximately 58 dBA CNEL at 50 feet from the track centerline, without the sounding of locomotive warning horns (NCRA 2009). Assuming a maximum instantaneous noise level of 108 dB with locomotive warning horns sounding, predicted average-daily noise levels at 50 feet from the track centerline would be 67 dBA CNEL (NCRA 2009). The sounding of warning horns generally occurs within approximately one-quarter mile of a grade crossing. The nearest grade crossing to the Project area includes one at E. Hill Road, directly adjacent to the southwestern corner of the Project site, thus the sounding of warning horns would be expected. Other sources of noise are the various land uses (i.e., residential, commercial, institutional, and recreational and parks activities) throughout Willits that generate stationary source noise. The Project site is located outside of any airport land use plan. Furthermore, the Project site is located more than two miles from any airport.

3.2.1 Existing Ambient Noise Measurements

The Project site is currently vacant of any structures. The site is relatively flat and is surrounded by scattered urban development to the west, north, and south. A mix of residential, office, and light industrial land uses dominate the area. In order to quantify existing ambient noise levels in the Project area, ECORP Consulting conducted three short-term noise measurements on the afternoon of October 20, 2019. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site (see Attachment A for Noise Measurement Locations). The October 20, 2019 measurements were taken between 1:06 p.m. and 2:29 p.m. These short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day. The average noise levels and sources of noise measured at each location are listed in in Table 4.

Table 4. Existing (Baseline) Noise Measurements

Location Number	Location	Duration	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
September 29, 2017 Measurements						
1	On the Project site where the proposed dorms will be located.	30 minutes	**53.9**	38.4	72.9	1:06 p.m. – 1:36 p.m.
2	On the Project site where the proposed education building will be located.	30 minutes	**53.7**	38.2	64.7	1:40 p.m.- 1:10 p.m.
3	Residence closest to the Project site where everyday noise producing activities will occur located on East Hill Road approximately 490 feet from the Project site.	10 minutes	**54.8**	41.8	69.6	2:19 p.m. – 2:29 p.m.

Source: Measurements were taken by ECORP Consulting with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the ANSI for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

As shown in Table 4, the ambient recorded noise levels ranged from 53.7 to 53.9 dBA on the Project site (see Attachment A for noise measurement locations). The noise most commonly in the Project vicinity is produced by automotive vehicles (cars, trucks, buses, motorcycles). Traffic moving along streets produces a sound level that remains relatively constant and is part of the Project area's minimum ambient noise level. Vehicular noise varies with the volume, speed and type of traffic. Slower traffic produces less noise than fast moving traffic. Trucks typically generate more noise than cars. Infrequent or intermittent noise also is associated with vehicles, including sirens, vehicle alarms, slamming of doors, trains, garbage and construction vehicle activity and honking of horns. These noises add to urban noise and are regulated by a variety of agencies.

3.2.2 Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the Project vicinity. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Attachment B) and traffic volumes from the Project transportation impact analysis. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table 5.

Table 5. Existing (Baseline) Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway
Highway 20 (South Main Street)		
North of the Baechtel Road / Muir Mill Road intersection	Commercial, Hotel & Residential	57.1
South of the Baechtel Road / Muir Mill Road intersection	Residential	57.4
Muir Miller Road		
West of South Main Street	Commercial & Residential	41.0
Baechtel Road		
Between Highway 20 & East Hill Road	Commercial & Residential	50.4
North of East Hill Road	Industrial & Residential	50.0
East Hill Road		
Between Baechtel Road and Haehl Creek Drive	Commercia, Industrial and Residential	53.2
East of Haehl Creek Drive	Industrial & Residential	51.9
Haehl Creek Drive		
South of the East Hill Road	Industrial & Residential	46.7

Source: Traffic noise levels were calculated by ECORP Consulting using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers 2019. Refer to Attachment B for traffic noise modeling assumptions and results.

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 41.0 to 57.4 dBA CNEL. As previously described, CNEL is 24-hour average noise level with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. It should be noted that the modeled noise levels depicted in Table 5 may differ from measured levels in Table 4 because the measurements represent noise levels at different locations around the Project site and are also reported in different noise metrics (e.g., noise measurements are the L_{eq} values and traffic noise levels are reported in CNEL).

4.0 REGULATORY FRAMEWORK

4.1 State

4.1.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting noise sensitive land uses, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (OPR 2003), published by the Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors

that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

State Office of Planning and Research Noise Element Guidelines

The OPR Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. This table, presented as Table 6 in this document, identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. If the noise levels identified at a proposed project site fall within levels considered normally acceptable, the project is considered compatible with the existing noise environment. A conditionally acceptable noise level at a proposed project site implies new construction or development can be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable noise level designation indicates that standard construction methods can occur with no special noise reduction requirements.

Table 6. Land Use Compatibility for Community Noise Environments

Land Use Category	Community Noise Exposure (CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 65	65 – 75	75 – 85
Residential – Multiple Unit, Mixed Use	50 – 65	60 – 70	70 – 75	75 – 85
Lodging – Hotels	50 – 65	60 – 70	70 – 80	80 – 85
Schools, Libraries, Community Centers, Religious Institutions, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	65 – 85	NA
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	70 – 85	NA
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 –75	72.5 – 85
Outdoor Recreation (Commercial and Public)	50 – 75	NA	70 – 80	80 – 85
Office, Retail, and Commercial	50 – 70	67.5 – 77.5	N/A	75 – 85
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	N/A	75 – 85

Source: OPR, California, General Plan Guidelines

Notes:

NA: Not Applicable; CNEL: Community Noise Equivalent Level

Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.

Normally Unacceptable – New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable – New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

4.2 Local

4.2.1 City of Willits General Plan

The purpose of the City of Willits General Plan Noise Element is to preserve the existing community noise environment, while minimizing the exposure of Willits residents to potentially harmful noise levels. The following Noise Policies and Nosie Implementation Measures presented in the General Plan are applicable to the proposed Project:

- 4.210: The City seeks to maintain ambient noise levels of 55 dBA (CNEL) in existing residential areas.
- 4.220: For residential development in areas with existing ambient noise levels in excess of 60 dBA, noise attenuation shall be required to reduce average indoor noise levels to a maximum of 45 dBA.
- 4.230: All noise sensitive land uses in areas with ambient noise levels in excess of 60 dBA shall require acceptable mitigation of noise impacts as a condition of approval.
- 4.250: Noise from all sources should be maintained at levels that will not adversely affect adjacent properties or the community, especially during the evening and early morning hours.
- 4.260: Noise created by temporary activities necessary to provide construction or require services should be permitted for the shortest duration possible and limited to time periods that will have the least possible adverse effect on surrounding land uses.
- 4.270: Uses should be located where they will be most acoustically compatible with elements of the man-made and natural environment.
- 4.310: Through the application review process, orient sensitive portions of buildings away from noise sources and encourage utilization of design techniques that will reduce adverse noise impacts.
- 4.320: Utilize natural terrain to screen structures from major arterial or other noise sources.

5.0 IMPACT ASSESSMENT

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would meet any of the following criteria:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2) Generation of excessive groundborne vibration or groundborne noise levels.

3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would expose people residing or working in the project area to excessive noise levels.

For purposes of this analysis and where applicable, the Noise Policies and Noise Implementation Measures presented in the City of Willits General Plan were used for evaluation of Project-related noise impacts. For land use compatibility of the proposed Project site to current conditions, the Land Use Compatibility for Community Noise Environments (Table 6) in the California General Plan Guidelines was applied.

5.2 Methodology

This analysis of the existing and future noise environments is based on noise-prediction modeling and empirical observations. In order to estimate the worst-case construction noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Model (2008). Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from the Caltrans guidelines set forth above. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby land uses.

In order to estimate the worst-case operational noise levels that may occur at the nearest noise-sensitive receptor, onsite operational noise levels have been calculated with the SoundPLAN 3D noise model (which predicts noise propagation from a noise source based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings, and barriers), coupled with noise measurements that were taken by ECORP Consulting, Inc. (ECORP) at various facilities with similar onsite activity. Noise measurements were taken with a Larson Davis SoundExpert LxT precision sound-level meter, which satisfies the ANSI for general environmental noise measurement instrumentation. Reference measurements can be found in Attachment A.

5.2.1 Impact Analysis

Project Construction Noise

Would the Project Result in Short-Term Construction-Generated Noise in Excess of Noise Standards?

Construction noise associated with the proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., building construction, paving). Noise generated by construction equipment, including earthmovers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical

disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive receptors in the vicinity of the construction site.

Table 7 indicates the anticipated noise levels of construction equipment. The average noise levels presented in Table 7 are based on the quantity, type, and acoustical use factor for each type of equipment that is anticipated to be used.

Table 7. Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Noise (L_{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L_{eq}) at 50 Feet (dBA)
Crane	80.6	72.6
Dozer	81.7	77.7
Excavator	80.7	76.7
Generator	80.6	77.6
Grader	85.0	81.0
Other Equipment (greater than 5 horsepower)	85.0	82.0
Paver	77.2	74.2
Roller	80.0	73.0
Tractor	84.0	80.0
Dump Truck	76.5	72.5
Concrete Pump Truck	81.4	74.4
Welder	74.0	70.0

Source: FHWA, Roadway Construction Noise Model (FHWA-HEP-05-054), dated January 2008.

As previously stated, the nearest noise-sensitive land uses consist of a senior apartment community just west of the northern boundary of the Project site, approximately 200 feet from the proposed development area. The noise levels from construction equipment at 50 feet range from 70.0 dBA to 81.0 dBA. The noise levels from construction operations decrease at a rate of approximately 6.0 dB per doubling of distance from the source. Thus, the noise levels at the nearest residences, approximately 200 feet away, would range from 58.0 dBA to 69.0 dBA.

The City does not limit the time that construction can take place or promulgate a numeric threshold pertaining to the noise associated with construction. However, Noise Policy 4.260 of the City of Willits General Plan states that noise created by temporary activities necessary to provide construction or required services should be permitted for the shortest duration possible and limited to time periods that will have the least possible adverse effects on surround land uses. As previously stated, Project construction would take place between 7:00 a.m. and 7:00 p.m. Monday-Friday and, if necessary, between 8:00 a.m. and 8:00 p.m. Saturday and Sunday. Limiting the time that construction can take place but not promulgate numeric thresholds is a common way that most cities and counties regulate construction noise. As long as construction activates take place between the hours listed it will have the least possible adverse effects on surround land uses, such as residences. Additionally, construction would occur through the Project site and would not be concentrated at one point. Therefore, as long as construction activities

are conducted within the stated hours, noise generated during construction activities would not exceed City noise standards.

Project Operations

Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of City Standards During Operations?

Project Land Use Compatibility

The City of Willits General Plan does not provide information for land use compatibility for new development, as such the State Office of Planning and Research (OPR) Noise Element Guidelines will be used for comparison purposes. The State OPR Noise Element Guidelines includes a Land Use Compatibility Matrix that provides a tool to gauge the compatibility of new land uses relative to existing noise levels. This table, presented as Table 6 in Appendix F, identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses. As previously stated, the Project site is designated in the City of Willits General Plan as "Industrial General"; however, the Project would include accommodations where some members of the CCC would spend weeks to months living and sleeping on the site. As such, the Project land use noise compatibility will be compared to that of land designated mixed use residential. In the case that the noise levels identified at the proposed Project site fall within levels considered normally acceptable, the Project is considered compatible with the existing noise environment.

Per the OPR Land Use Compatibility Matrix, an acceptable existing noise level for locating mixed use residential is 50 - 65 dBA CNEL. In order to quantify existing ambient noise levels in the Project area, ECORP conducted three short-term noise measurements on October 20, 2019. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site and are considered representative of the noise levels throughout the day. As shown in Table 4, the ambient noise level recorded on the Project site ranged from 53.7 to 53.9 dBA. As this noise level falls within the OPR standards, the Project site is considered an appropriate noise environment to locate the proposed land use.

Additionally, as previously stated, the Project site is also affected by the Northwestern Pacific Railroad corridor, which accommodates freight rail and traverses the western boundary of the Project site. (The noise event of a freight rail was not experienced when visiting the Project site.) As previously described, locomotive warning horns have a maximum instantaneous noise level of 108 dBA. The dormitories are located approximately 400 feet from the track centerline. As previously stated, sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a moving train. Thus, the noise level at the dorms during the event of a freight rail using its horn while passing the Project site would be approximately 90 dBA for a brief instant. This instantaneous noise level surpasses the OPR compatibility standards provided for land designated mixed use residential. However, freight train service along the railroad line consists of up to a total of two round-trip freight train operations per day (NCRA 2009) and these events are anticipated to last less than a minute. Because the Land Use Compatibility Table is based on CNEL, which is a 24-hour average noise level, the noise experienced on the Project site during a passing freight train event would not affect the compatibility for the location of residents due to

the brevity of the passing freight train event and the fact the for the overwhelming majority of each day the site would not experience noise from passing trains or train horns.

Operational Traffic Noise

Future traffic noise levels throughout the Project vicinity were modeled based on the traffic volumes identified by Fehr & Peers (2019) coupled with the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (Attachment B). Table 8 shows the calculated off-site roadway noise levels under existing traffic conditions and full buildout of the Project noise levels, as well as the increase in noise levels between existing traffic levels and Project buildout. The calculated noise levels as a result of the Project at affected land uses are compared to Noise Policy 4.210 in the City's General Plan that seeks to maintain ambient noise levels of 55 dBA CNEL in existing residential areas. However, as shown in Table 5, the two analyzed segments of roadway located on Highway 20 (South Main Street) currently experience an ambient noise level over 55 dBA CNEL. As such, for the purpose of evaluating noise impacts, these segments will be compared to a 3 dBA increase from existing conditions. While a change of 1 dBA cannot be perceived by humans except in carefully controlled laboratory experiments, a 3-dBA change is considered a just-perceivable difference outside of the laboratory and a change in level of at least 5 dBA is required before any noticeable change in community response would be expected.

Table 8. Existing Plus Project Conditions Predicted Traffic Noise Levels

Roadway Segment	Surrounding Uses	CNEL at 100 feet from Centerline of Roadway		Increase from Ambient	Noise Standard (dBA CNEL)	Exceed Standard / Significant Impact?
		Existing Conditions	Existing + Project Conditions			
Highway 20 (South Main Street)						
North of the Baechtel Road / Muir Mill Road intersection	Commercial, Hotel & Residential	57.1	57.2	0.1	**>3**	**No**
South of the Baechtel Road / Muir Mill Road intersection	Residential	57.4	57.6	0.2	**>3**	**No**
Muir Miller Road						
West of South Main Street	Commercial & Residential	41.0	41.0	0.0	**55**	**No**
Baechtel Road						
Between Highway 20 & East Hill Road	Commercial & Residential	50.4	51.0	0.6	**55**	**No**
North of East Hill Road	Industrial & Residential	50.0	53.0	3.0	**55**	**No**
East Hill Road						
Between Baechtel Road and Haehl Creek Drive	Commercia, Industrial and Residential	53.2	53.6	0.4	**55**	**No**
East of the Project driveway (East of Haehl Creek Drive)	Industrial & Residential	51.9	52.0	0.1	**55**	**No**
Haehl Creek Drive						
South of the East Hill Road	Industrial & Residential	46.7	46.7	0.0	**55**	**No**

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers 2019. Refer to Attachment B for traffic noise modeling assumptions and results.

As shown in Table 8, predicted increases in traffic noise levels associated with the Project would be less than thresholds.

Operational Stationary Noise

Noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. Nearby noise-sensitive land uses consist of a senior apartment community just west of the northern boundary of the Project site, approximately 200 feet from the proposed development area, and a single-family residence, approximately 490 feet west of the Project site across Haehl Creek Drive.

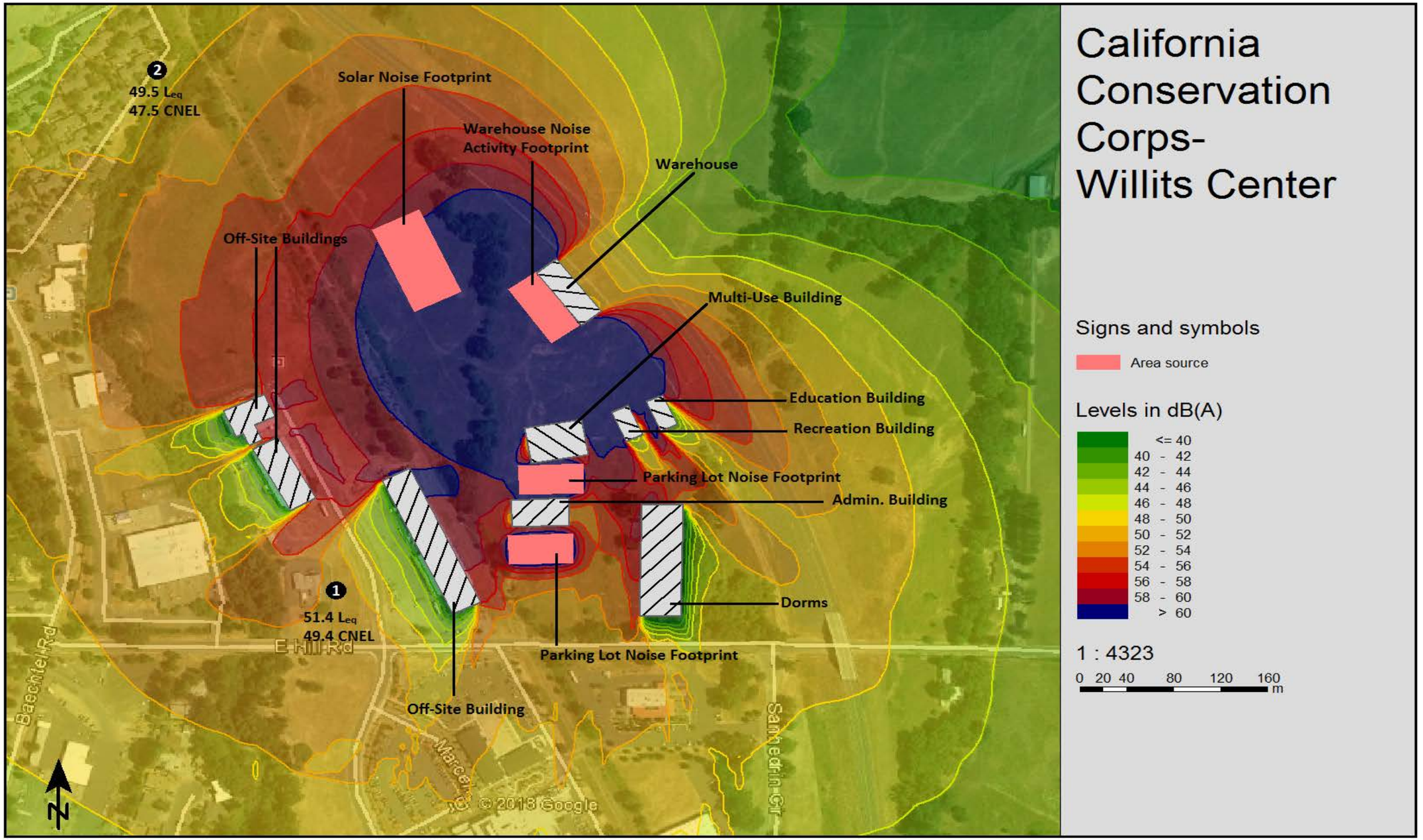
The main operational noises associated with the proposed Project would be that of warehouse activities, parking lot activities, and the noise produced from the solar generation pad. The worst-case potential for on-site activities has been calculated using the SoundPLAN 3D noise model sourced with noise measurements taken by ECORP at similar facilities, the SoundPLAN 3D model Library, and previous noise studies. The results of this model can be found in Attachment C. Table 9 shows the predicted Project noise levels at the two closest noise-sensitive land use in the Project vicinity, as predicted by the SoundPLAN 3D noise model. Nosie levels are represented in L_{eq} and CNEL. Onsite noise producing activities are assumed to occur between 7:00 a.m. and 7:00 p.m. Additionally, a noise contour graphic (Figure 2) has been prepared to depict the predicted noise levels in the Project vicinity from daily operations.

Table 9. Modeled Operational Noise Levels

Site Number	Location	dBA L_{eq}	dBA CNEL	Exceeds Standard?
1	Residence located 490 feet to the west.	51.4	49.4	**No**
2	Apartment complexes located 200 feet to the west.	49.5	47.5	**No**

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment C for noise modeling assumptions and results.

Notes: SoundPLAN-modeled noise levels for stationary sources outputted in Leq, defined as the average acoustic energy content of noise for a stated period of time. Leq is converted to CNEL, defined as a 24-hour average Leq with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively. Leq is converted to CNEL based on 12 hours of daily operations at the Project site (7:00 am – 7:00 pm). The SoundPLAN-modeled noise level for each study location is applied to each hour of operation, while a noise level of zero dB Leq is applied to each of the 12 hours the Project site is not in operations (7:00 pm – 7:00 am).



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1: Project Noise Propagation

2018-116.005 CCC Willits Center

As shown, the modeled noise generated by Project operations ranges from 49.5 to 51.4 dBA L_{eq} at the nearest noise-sensitive receptors. The L_{eq} noise descriptor is converted to CNEL in order to account for the logarithmic effect of the 12 hours daily that onsite noise producing operations would occur and thus provide a 24-hour average noise level, which is consistent with the City noise standard. Project noise levels range from 47.5 dBA to 49.4 dBA CNEL. These numbers fall below the City's General Plan ambient noise level standard of 55 dBA CNEL at existing residences.

Project Groundborne Vibration

Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Once operational, the Project would not be a source of groundborne vibration. Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. Construction on the Project site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 10.

Table 10. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 50 Feet (inches per second)
Vibratory Roller	0.073
Large Bulldozer	0.031
Caisson Drilling	0.031
Loaded Trucks	0.026
Rock Breaker	0.031
Jackhammer	0.012
Small Bulldozer/Tractor	0.001

Source: FTA 2018; Caltrans 2013

The City does not regulate vibration associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans's (2013) recommended standard of 0.2 inches per second peak particle velocity with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

It is acknowledged that construction activities would occur throughout the Project site and would not be concentrated at the point closest to the nearest structure. The nearest structures of concern to the construction site is the senior apartment community approximately 200 feet from the proposed development area. Based on the vibration levels presented in Table 10, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.073 inches per second peak particle velocity at 50 feet.

Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any stationary equipment that would result in excessive groundborne vibration levels.

Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project site is located approximately 4.4 miles northwest of the Willits Municipal Airport and is not within any airport land use plan. The proposed Project will not expose people residing or working in the Project area to excess airport noise levels.

5.2.2 Cumulative Noise Impacts?

Cumulative Construction Noise

Construction activities associated with the proposed Project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. Construction noise for the proposed Project was determined to be less than significant following compliance with the presented construction hours. Cumulative development in the vicinity of the Project site could result in elevated construction noise levels at sensitive receptors in the Project area. However, each project would be required to comply with the applicable City's General Plan limitations on construction. Therefore, the Project would not contribute to cumulative impacts during construction.

Cumulative Stationary Source Noise Impacts

Long-term stationary noise sources associated with the development at the Project, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed Project and related cumulative projects together could result in higher noise levels than considered separately. As previously described, onsite noise sources associated with the proposed Project would not exceed any applicable noise standards. Additionally, related cumulative projects would be required to comply with the City's noise level standards and include mitigation measures if standards are exceeded. Therefore, cumulative noise impacts from stationary noise sources would be considered less than significant.

Cumulative Traffic Source Noise Impacts

According to the U.S. Environmental Protection Agency (USEPA), cumulative noise impacts represent the combined and incremental effects of human activities that accumulate over time. While the incremental impacts may be insignificant by themselves, the combined effect may result in a significant impact. Conversely, although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project.

Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways due to construction of the Project and other projects in the vicinity. A project's contribution to a cumulative traffic noise increase could be considered significant when the combined effect exceeds the perception level (i.e., auditory level increase) threshold. The combined effect compares the "Cumulative Plus Project" condition to "Existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by projects in the area. The incremental effect compares the "Cumulative Plus Project" condition to the "Cumulative No Project" condition.

The following combined effect and incremental effect criteria have been utilized to evaluate the overall effect of the cumulative noise increase.

- **Combined Effect**. The cumulative with Project noise level ("Cumulative Plus Project") would cause a significant cumulative impact if a 3.0-dB increase over Existing Conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project.
- **Incremental Effects**. The "Cumulative Plus Project" causes a 1.0 dBA increase in noise over the "Cumulative No Project" noise level.

A significant impact would result only if *both* the combined and incremental effects criteria have been exceeded at a single roadway segment, since such would indicate that there is a significant noise increase due to the proposed Project in combination with other related projects *and* a significant portion of the noise increase is due to the proposed Project. Noise by definition is a localized phenomenon and reduces as distance from the source increases. Consequently, only the proposed Project and growth due to occur in the Project site's general vicinity would contribute to cumulative noise impacts. Table 11 lists the traffic noise effects along roadway segments in the Project vicinity for "Existing," "Cumulative No Project," and "Cumulative Plus Project," conditions, including incremental and net cumulative impacts.

Table 11. Cumulative Traffic Noise Scenario

Roadway Segment	Existing	Cumulative No Project	Cumulative Plus Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	CNEL @ 100 Feet from Roadway Centerline	CNEL @ 100 Feet from Roadway Centerline	CNEL @ 100 Feet from Roadway Centerline	Difference in CNEL Between Existing and Cumulative + Project	Difference in CNEL Between Cumulative No Project and Cumulative + Project	
Highway 20 (South Main Street)						
North of the Baechtel Road / Muir Mill Road intersection	57.1	57.3	57.4	0.3	0.1	**No**
South of the Baechtel Road / Muir Mill Road intersection	57.4	57.5	57.8	0.4	0.3	**No**
Muir Miller Road						
West of South Main Street	41.0	41.9	41.9	0.9	0.0	**No**
Baechtel Road						
Between Highway 20 & East Hill Road	50.4	50.6	51.2	0.8	0.6	**No**
North of East Hill Road	50.0	50.2	50.2	0.2	0.0	**No**
East Hill Road						
Between Baechtel Road and Haehl Creek Drive	53.2	53.4	53.8	0.6	0.4	**No**
East of the Project driveway (East of Haehl Creek Drive)	51.9	52.1	52.1	02	0.0	**No**
Haehl Creek Drive						
South of the East Hill Road	46.7	47.0	47.0	0.3	0.0	**No**

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers 2019. Refer to Attachment B for traffic noise modeling assumptions and results.

As shown in Table 11, no significant cumulative traffic noise impact would result. As previously described, the combined effect and incremental effect criteria have been utilized to evaluate the overall effect of the cumulative noise increase, and a significant impact would result only if *both* the combined and incremental effects criteria have been exceeded at a single roadway segment. The proposed Project would not have a combined or incremental effect.

6.0 REFERENCES

Caltrans. 2018. *Traffic Census Program – 2017 Traffic Counts.* https://dot.ca.gov/programs/traffic-operations/census

_____. 2013. *Transportation and Construction Vibration Guidance Manual*.

_____. 2012. IS/EA Annotated Outline. http://www.dot.ca.gov/ser/vol1/sec4/ch31ea/chap31ea.htm.

FHWA. 2011. *Effective Noise Control During Nighttime Construction*. Available online at: http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.

_____. 2008. Roadway Construction Noise Model.

Fehr & Peers. Draft Transportation Impact Analysis. 2019.

FTA. 2018. *Transit Noise and Vibration Impact Assessment*.

NCRA. 2009. *Russian River Division Freight Rail Project Draft Environmental Impact Report.*

OPR. 2003. *State of California General Plan Guidelines*.

WEAL. 2000. *Sound Transmission Sound Test Laboratory Report No. TL 96-186*.

Willits, City of. City of Willits General Plan. 1992.

LIST OF ATTACHMENTS

ATTACHMENT A

Baseline (Existing) Noise Measurements – Project Site and Vicinity

Site Number: 1			
Recorded By: Rosey Worden			
Job Number: 2018-119.005			
Date: 10/20/19			
Time: 1:06 pm			
Location: On the Project site where the proposed dorms will be located.			
Source of Peak Noise: Vehicles on US 101 and East Hill Road			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
53.9	38.4	72.9	95.6

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**8/05/2019**	
	Microphone	**Larson Davis**	**377B02**	**174464**	**8/05/2019**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**8/05/2019**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**8/02/2019**	

Weather Data			
Est.	**Duration:** 30 minutes		**Sky:** Clear
	Note: dBA Offset = 0.01		**Sensor Height (ft): 4** ft
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	1-3	80°	

Photo of Measurement Location

Summary

File Name on Meter	LxT_Data.148
File Name on PC	SLM_0005120_LxT_Data_148.00.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.302
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2019-10-20 13:06:35
Stop	2019-10-20 13:36:35
Duration	00:30:00.0
Run Time	00:30:00.0
Pause	00:00:00.0
Pre Calibration	2019-10-20 12:58:13
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Overload	122.9 dB

	A	**C**	**Z**
Under Range Peak	79.2	76.2	**81.2** dB
Under Range Limit	**27.2**	26.5	31.9 dB
Noise Floor	17.0	17.4	22.8 dB

Results

LA_{eq}	**53.9 dB**		
LAE	86.4 dB		
EA	48.623 µPa²h		
$LZ_{peak\ (max)}$	2019-10-20 13:12:16	95.6 dB	
LAS_{max}	2019-10-20 13:12:16	72.9 dB	
LAS_{min}	2019-10-20 13:25:44	38.4 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	53.9	53.9	-99.9	53.9	53.9	-99.9	-99.9

LCeq	63.8	dB
LAeq	53.9	dB
LCeq - LAeq	10.0	dB
LAleq	55.1	dB
LAeq	53.9	dB
LAleq - LAeq	1.3	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	53.9		63.8			
LS(max)	72.9	2019/10/20 13:12:16				
LS(min)	38.4	2019/10/20 13:25:44				
LPeak(max)					95.6	2019/10/20 13:12:16

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	**1.0**	
OBA Overload Duration	3.4	s

Statistics		
LAS5.00	58.9	dB
LAS10.00	57.2	dB
LAS33.30	53.2	dB
LAS50.00	51.2	dB
LAS66.60	49.0	dB
LAS90.00	44.5	dB

Site Number: 2			
Recorded By: Rosey Worden			
Job Number: 2018-119.005			
Date: 10/20/19			
Time: 1:40 pm			
Location: On the Project site where the proposed education building will be located.			
Source of Peak Noise: Vehicles on US 101 and East Hill Road			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
53.7	38.2	64.7	92.7

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**8/05/2019**	
	Microphone	**Larson Davis**	**377B02**	**174464**	**8/05/2019**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**8/05/2019**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**8/02/2019**	

Weather Data			
Est.	**Duration:** 30 minutes		**Sky:** Clear
	Note: dBA Offset = 0.01		**Sensor Height (ft): 4** ft
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	1-3	80°	

Photo of Measurement Location

Summary

File Name on Meter	LxT_Data.149
File Name on PC	SLM_0005120_LxT_Data_149.00.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.302
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2019-10-20 13:40:07
Stop	2019-10-20 14:10:07
Duration	00:30:00.0
Run Time	00:30:00.0
Pause	00:00:00.0
Pre Calibration	2019-10-20 12:58:09
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting		
Peak Weight	Z Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Low		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.9 dB		
	A	**C**	**Z**
Under Range Peak	79.2	76.2	**81.2** dB
Under Range Limit	**27.2**	26.5	31.9 dB
Noise Floor	17.0	17.4	22.8 dB

Results

LA_{eq}	**53.7 dB**		
LAE	86.3 dB		
EA	46.869 µPa²h		
$LZ_{peak\ (max)}$	2019-10-20 13:47:43	92.7 dB	
LAS_{max}	2019-10-20 14:00:36	64.7 dB	
LAS_{min}	2019-10-20 14:06:53	38.2 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	53.7	53.7	-99.9	53.7	53.7	-99.9	-99.9

LCeq	63.1	dB
LAeq	53.7	dB
LCeq - LAeq	9.4	dB
LAleq	54.7	dB
LAeq	53.7	dB
LAleq - LAeq	1.0	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	53.7		63.1			
LS(max)	64.7	2019/10/20 14:00:36				
LS(min)	38.2	2019/10/20 14:06:53				
LPeak(max)					92.7	2019/10/20 13:47:43

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	0	
OBA Overload Duration	0.0	s

Statistics		
LAS5.00	59.0	dB
LAS10.00	57.2	dB
LAS33.30	53.5	dB
LAS50.00	51.0	dB
LAS66.60	48.6	dB
LAS90.00	44.0	dB

Site Number: 3			
Recorded By: Rosey Worden			
Job Number: 2018-119.005			
Date: 10/20/19			
Time: 2:19 pm			
Location: Residence closest to the Project site where everyday noise producing activities will occur located on East Hill Road approximately 490 feet from the Project site.			
Source of Peak Noise: Vehicles on US 101 and East Hill Road			
Noise Data			
Leq (dB)	**Lmin (dB)**	**Lmax (dB)**	**Peak (dB)**
54.8	41.8	69.6	97.2

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Larson Davis**	**LxT SE**	**0005120**	**8/05/2019**	
	Microphone	**Larson Davis**	**377B02**	**174464**	**8/05/2019**	
	Preamp	**Larson Davis**	**PRMLxT1L**	**042852**	**8/05/2019**	
	Calibrator	**Larson Davis**	**CAL200**	**14105**	**8/02/2019**	

Weather Data			
Est.	**Duration:** 10 minutes	**Sky:** Clear	
	Note: dBA Offset = 0.01	**Sensor Height (ft): 4** ft	
	Wind Ave Speed (mph)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (hPa)**
	1-3	80°	

Photo of Measurement Location

Summary

File Name on Meter	LxT_Data.150
File Name on PC	SLM_0005120_LxT_Data_150.00.ldbin
Serial Number	0005120
Model	SoundExpert® LxT
Firmware Version	2.302
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2019-10-20 14:19:19
Stop	2019-10-20 14:29:19
Duration	00:10:00.0
Run Time	00:10:00.0
Pause	00:00:00.0
Pre Calibration	2019-10-20 12:58:09
Post Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	A Weighting
OBA Max Spectrum	Bin Max
Overload	122.9 dB

	A	**C**	**Z**
Under Range Peak	79.2	76.2	**81.2** dB
Under Range Limit	**27.2**	26.5	31.9 dB
Noise Floor	17.0	17.4	22.8 dB

Results

LA_{eq}	**54.8 dB**		
LAE	82.6 dB		
EA	20.062 µPa²h		
$LZ_{peak\ (max)}$	2019-10-20 14:19:52	97.2 dB	
LAS_{max}	2019-10-20 14:19:52	69.6 dB	
LAS_{min}	2019-10-20 14:21:31	41.8 dB	
SEA	-99.9 dB		

LAS > 85.0 dB (Exceedance Counts / Duration)	0	0.0 s
LAS > 115.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LZpeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s

Community Noise	**Ldn**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**Lden**	**LDay 07:00-19:00**	**LEvening 19:00-22:00**	**LNight 22:00-07:00**
	54.8	54.8	-99.9	54.8	54.8	-99.9	-99.9

LCeq	66.1	dB
LAeq	54.8	dB
LCeq - LAeq	11.3	dB
LAleq	56.4	dB
LAeq	54.8	dB
LAleq - LAeq	1.7	dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	54.8		66.1			
LS(max)	69.6	2019/10/20 14:19:52				
LS(min)	41.8	2019/10/20 14:21:31				
LPeak(max)					97.2	2019/10/20 14:19:52

# Overloads	0	
Overload Duration	0.0	s
# OBA Overloads	**1.0**	
OBA Overload Duration	3.8	s

Statistics		
LAS5.00	60.9	dB
LAS10.00	59.0	dB
LAS33.30	52.1	dB
LAS50.00	49.0	dB
LAS66.60	46.2	dB
LAS90.00	43.6	dB

ATTACHMENT B

Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Project Traffic Noise

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2018-116.005
Project Name: California Conservation Corps Willits Center Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers 2019
Community Noise Descriptor: L_{dn}: _____ CNEL: x

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition / Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	CNEL at 100 Feet	Distance from Centerline of Roadway: Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
Analysis Condition-Existing Conditions													
Highway 20 (South Main Street)													
North of the Baechtel Road / Muir Mill Road intersection	4	0	5,067	40	0.5	1.8%	0.7%	**57.1**	-	-	65	139	100
South of the Baechtel Road / Muir Mill Road intersection	2	0	4,095	45	0.5	1.8%	0.7%	**57.4**	-	-	67	143	100
Muir Miller Road													
West of South Main Street	2	0	126	40	0.5	1.8%	0.7%	**41.0**	-	-	-	-	100
Baechtel Road													
Between Highway 20 & East Hill Road	2	0	1,498	35	0.5	1.8%	0.7%	**50.4**	-	-	-	49	100
North of East Hill Road	2	0	1,359	35	0.5	1.8%	0.7%	**50.0**	-	-	-	46	100
East Hill Road													
Between Baechtel Road and Haehl Creek Drive	2	0	2,092	40	0.5	1.8%	0.7%	**53.2**	-	-	35	76	100
East of Haehl Creek Drive	2	0	1,548	40	0.5	1.8%	0.7%	**51.9**	-	-	-	62	100
Haehl Creek Drive													
South of the East Hill Road	2	0	639	35	0.5	1.8%	0.7%	**46.7**	-	-	-	-	100

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2018-116.005
Project Name: California Conservation Corps Willits Center Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers 2019
Community Noise Descriptor: L_{dn}: _____ CNEL: x

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	**CNEL at 100 Feet**	Distance from Centerline of Roadway: Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
Analysis Condition-Existing+Project													
Highway 20 (South Main Street)													
North of the Baechtel Road / Muir Mill Road intersection	4	0	5,103	40	0.5	1.8%	0.7%	**57.2**	-	-	65	140	100
South of the Baechtel Road / Muir Mill Road intersection	2	0	4,374	45	0.5	1.8%	0.7%	**57.6**	-	32	70	150	100
Muir Miller Road													
West of South Main Street	2	0	126	40	0.5	1.8%	0.7%	**41.0**	-	-	-	-	100
Baechtel Road													
Between Highway 20 & East Hill Road	2	0	1,710	35	0.5	1.8%	0.7%	**51.0**	-	-	-	54	100
North of East Hill Road	2	0	2,709	35	0.5	1.8%	0.7%	**53.0**	-	-	34	73	100
East Hill Road													
Between Baechtel Road and Haehl Creek Drive	2	0	2,308	40	0.5	1.8%	0.7%	**53.6**	-	-	38	81	100
East of the Project driveway (East of Haehl Creek Drive)	2	0	1,575	40	0.5	1.8%	0.7%	**52.0**	-	-	-	63	100
Haehl Creek Drive													
South of the East Hill Road	2	0	639	35	0.5	1.8%	0.7%	**46.7**	-	-	-	-	100

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2018-116.005
Project Name: California Conservation Corps Willits Center Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers 2019
Community Noise Descriptor: L_{dn}: _____ CNEL: x

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Vehicle Mix: Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	**CNEL at 100 Feet**	Distance from Centerline of Roadway: Distance to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
Analysis Condition-Cumulative - No Project													
Highway 20 (South Main Street)													
North of the Baechtel Road / Muir Mill Road intersection	4	0	5,283	40	0.5	1.8%	0.7%	**57.3**	-	-	66	143	100
South of the Baechtel Road / Muir Mill Road intersection	2	0	4,275	45	0.5	1.8%	0.7%	**57.5**	-	-	69	148	100
Muir Miller Road													
West of South Main Street	2	0	153	40	0.5	1.8%	0.7%	**41.9**	-	-	-	-	100
Baechtel Road													
Between Highway 20 & East Hill Road	2	0	1,575	35	0.5	1.8%	0.7%	**50.6**	-	-	-	51	100
North of East Hill Road	2	0	1,422	35	0.5	1.8%	0.7%	**50.2**	-	-	-	48	100
East Hill Road													
Between Baechtel Road and Haehl Creek Drive	2	0	2,169	40	0.5	1.8%	0.7%	**53.4**	-	-	36	78	100
East of the Project driveway (East of Haehl Creek Drive)	2	0	1,629	40	0.5	1.8%	0.7%	**52.1**	-	-	-	64	100
Haehl Creek Drive													
South of the East Hill Road	2	0	675	35	0.5	1.8%	0.7%	**47.0**	-	-	-	-	100

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2018-116.005
Project Name: California Conservation Corps Willits Center Project

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers 2019
Community Noise Descriptor: L_{dn}: _____ CNEL: x

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Centerline of Roadway: CNEL at **100 Feet**	Distance to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
Analysis Condition-Cummulative with Project													
Highway 20 (South Main Street)													
North of the Baechtel Road / Muir Mill Road intersection	4	0	5,319	40	0.5	1.8%	0.7%	**57.4**	-	-	67	144	100
South of the Baechtel Road / Muir Mill Road intersection	2	0	4,554	45	0.5	1.8%	0.7%	**57.8**	-	33	71	154	100
Muir Miller Road													
West of South Main Street	2	0	153	40	0.5	1.8%	0.7%	**41.9**	-	-	-	-	100
Baechtel Road													
Between Highway 20 & East Hill Road	2	0	1,786	35	0.5	1.8%	0.7%	**51.2**	-	-	-	56	100
North of East Hill Road	2	0	1,431	35	0.5	1.8%	0.7%	**50.2**	-	-	-	48	100
East Hill Road													
Between Baechtel Road and Haehl Creek Drive	2	0	2,416	40	0.5	1.8%	0.7%	**53.8**	-	-	39	84	100
East of the Project driveway (East of Haehl Creek Drive)	2	0	1,638	40	0.5	1.8%	0.7%	**52.1**	-	-	-	65	100
Haehl Creek Drive													
Southt of the East Hill Road	2	0	675	35	0.5	1.8%	0.7%	**47.0**	-	-	-	-	100

ATTACHMENT C

SoundPLAN Outputs – Onsite Project Noise

SoundPLAN
Output Source Information

Number	Reciever Name	Floor	Level at Receiver
1	Single-family residence located approximately 490 feet to the west.	Ground Floor	49.5 dBA
2	Senior appartement community located approximately 200 feet to the west.	Ground Floor	51.4 dBA

Number	Noise Source Information	Citation	Level at Source
1	Parking Lot Activity	SoundPLAN 4.1 Reference Library	60.0 dBA
2	Parking Lot Activity	SoundPLAN 4.1 Reference Library	60.0 dBA
3	Shop/ Warehouse Activity	CalFIRE Altaville Forest Fire Station Auto Shop Replacement Project Initial Study/Mitigated Negative Declaration. 2014	82.2 dBA
4	Ambient noise at an solar solar energy generation facility	ECORP noise measurement at existing solar field	47.1 dBA

Total Construction-Related and Operational Gasoline Usage

California Conservation Corps, Willits Center Project

Willits, California

Prepared For:

State of California Department of General Services
Real Estate Services Division
707 Third Street, 4th Floor
West Sacramento, California 95605

October 2019

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Proposed Project
Total Construction-Related and Operational
Gasoline Usage

Action	Carbon Dioxide Equivalents (CO_2e) in Metric Tons[1]	Conversion of Metric Tons to Kilograms[2]	Construction Equipment Emission Factor[2]	Total Gallons of Fuel Consumed
Project Construction	**1378**	**1378000**	**10.15**	**135,764**
	Per CalEEMod Output Files.	Per Climate Registry Equation 13e	Per Climate Registry Equation 13e	

Total Gallons Consumed During Project Construction: 135,764

Notes:

[1]Fuel used by all construction equipment, including vehicle hauling trucks, assumed to be diesel.

Sources:

[1]ECORP Consulting, 2019. California Conservation Corps, Willits Center Air Quality & Greenhouse Gas Assessment

[2]Climate Registry. 2016. *General Reporting Protocol for the Voluntary Reporting Program version 2.1.* January 2016.
http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf

Total Gallons During Project Operations

Area	Sub-Area	Cal. Year	Season	Veh_tech	EMFAC AC2007 Category	Fuel_GAS	Fuel_DSL	Daily Total	**ANNUAL TOTAL**
Sub-Areas	Mendocino County	2018	Annual	All Vehicles	All Vehicles	0.0367	0.0004	0.037153298	**13561**

Sources:

Californai Air Resource Board. 2017. EMFAC2017 Mobile Emissions Model.