

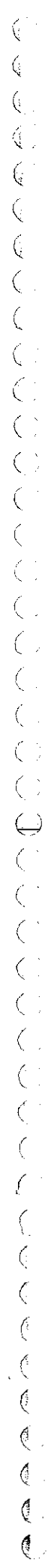
**DRAFT**  
**Initial Study/Mitigated Negative Declaration**  
**for the proposed**  
**Baker Fire Station Replacement Project**  
**Tehama County, California**



Prepared by:  
The California Department of Forestry and Fire Protection  
The Lead Agency Pursuant to Section 21082.1 of the  
California Environmental Quality Act

California Department of Forestry and Fire Protection  
P.O. Box 944246  
Sacramento, CA 94244-2460  
(916) 653-0839

January 28, 2019



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# DRAFT MITIGATED NEGATIVE DECLARATION

## Baker Fire Station (FS) Replacement Project

**Lead Agency:** State of California Department of Forestry and Fire Protection (CAL FIRE)

**Project Location:** The project is located on a 4.06-acre site at 14800 Bowman Road, Cottonwood, California, on Assessor's Parcel Number 003-170-037-000 in Tehama County.

A. **Project Description:** The Baker Fire Station (FS) Replacement Project (Project) consists of the demolition of an existing forest fire station and the construction of a new forest fire station and related facilities approximately 200 to 500 feet east of the existing FS. The structures to be demolished include: 1) a single-story office building, 2) a single-story barracks, 3) an apparatus building and associated ancillary structures. The proposed replacement fire station consists of: 1) a 7,280 sf 6-bedroom (12-bed) barracks/messhall building with an attached 2-engine 3-bay apparatus building, 2) a generator/pump/storage building with an emergency generator and transfer switch, and 3) ancillary improvements including fuel facilities, a hose rack, a vehicle wash rack, underground utilities, concrete walkways, parking area, landscaping, a propane system, a new septic system, a new potable water well with treatment system, and water storage tank. Other improvements include security fencing, gates, and lighting.

**Finding:** Based on the information contained in the attached Initial Study, CAL FIRE finds that there will not be a significant effect to the environment because the mitigation measures will be incorporated as part of the proposed project.

**Public Review Period:** February 11, 2019 to March 12, 2019.

## ATTACHMENTS

## Attachment A

### DEPARTMENT OF FORESTRY AND FIRE PROTECTION



Notice Date: January 28, 2019

#### NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

##### **Project Name: Baker Fire Station Replacement**

The State of California Department of Forestry and Fire Protection (CAL FIRE) is the Lead Agency for the proposed Baker Fire Station (FS) Replacement Project (Project). In compliance with the California Environmental Quality Act (Public Resources Code § 21000 *et seq.*) and Department procedures, notification is hereby given to responsible and trustee agencies, interest groups and the general public, that the California Department of Forestry and Fire Protection proposes to adopt a Mitigated Negative Declaration for the project described below.

**Project Location:** The project is at 14800 Bowman Road, in Cottonwood, California, 92061, in Tehama County.

**Project Description:** The Baker Fire Station (FS) Replacement Project (Project) consists of the demolition of an existing forest fire station and the construction of a new fire station and related facilities approximately 200 to 500 feet east of the existing FS. The structures to be demolished include: 1) a single-story office building, 2) a single-story barracks, 3) an apparatus building and associated ancillary structures. The proposed replacement forest fire station consists of: 1) a 2-engine, single building fire station with a Battalion Chief Office (7,164 sf), 2) a generator/pump/storage building (648 sf), and 3) ancillary improvements including grading, paving, curbs/gutters/sidewalks, new utilities, including fiber optic extension, storm drainage, septic system, water well, water storage tank and treatment system, hose wash rack and wharf hydrant, above ground fuel vaults. Other improvements include security fencing, gates, and lighting.

**Public Review Period:** The draft Mitigated Negative Declaration will undergo a 30-day public review period during which comments may be submitted. The review period begins on February 11, 2019 to March 12, 2019. Written comments regarding the contents of the Mitigated Negative Declaration should be sent to:

**Contact Person:**

Christina Snow, Senior Environmental Planner  
California Department of Forestry and Fire Protection  
Technical Services Section  
P.O. Box 944246  
Sacramento, CA 94244-2460

**Phone Number:** (916) 324-1639

Written comments may also be sent via e-mail using the e-mail address provided below:

**Email:** [sacramentopubliccomment@fire.ca.gov](mailto:sacramentopubliccomment@fire.ca.gov)

A copy of the draft Mitigated Negative Declaration, Initial Study, and supporting documentation are available for review at the following locations:

1. CAL FIRE Tehama-Glenn Unit Headquarters, 604 Antelope Boulevard, Red Bluff, California, 96080.
2. CAL FIRE Baker Fire Station, 14800 Bowman Road, in Cottonwood, California, 96022.
3. CAL FIRE Technical Services, 1300 U Street, Sacramento, CA 95818.

The Notice of Intent is posted at the following locations:

1. CAL FIRE Tehama-Glenn Unit Headquarters, 604 Antelope Boulevard, Red Bluff, California, 96080.
2. CAL FIRE Baker Fire Station, 14800 Bowman Road, in Cottonwood, California, 96022.
3. Tehama County United States Post Office, 18731 Bowman Road, Cottonwood, California, 96022.

The CEQA documents are also available on-line at:

[http://www.fire.ca.gov/resource\\_mgt/resource\\_mgt\\_EPRP\\_PublicNotice.php](http://www.fire.ca.gov/resource_mgt/resource_mgt_EPRP_PublicNotice.php).

# INTRODUCTION AND REGULATORY CONTEXT

## Stage of CEQA Document Development

- ☐ **Administrative Draft.** This California Environmental Quality Act (CEQA) document is in preparation by California Department of Forestry and Fire Protection (CAL FIRE) staff.
- ☒ **Public Document.** This completed CEQA document has been filed by CAL FIRE at the State Clearinghouse and is being circulated for a 30-day agency and public review period. The public review period begins December 4, 2017 and ends on January 5, 2018.
- ☐ **Final CEQA Document.** This Final CEQA document contains the changes made by the Department following consideration of comments received during the public and agency review period. The changes are displayed in strike-out text for deletions and underlined text for insertions. The CEQA administrative record supporting this document is on file, and available for review, at CAL FIRE's Sacramento Headquarters, Environmental Protection Program, which is located in the Natural Resources Building, 1416 Ninth Street, 15<sup>th</sup> Floor, Sacramento, California.

## Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND<sup>1</sup>) describes the environmental impact analysis conducted for the proposed project. This document was prepared by CAL FIRE staff utilizing information gathered from a number of sources including research and field review of the proposed project area and consultation with environmental planners. Pursuant to Section 21082.1 of the CEQA, the lead agency, CAL FIRE, has prepared, reviewed, and analyzed the IS/MND and declares that the statements made in this document reflect CAL FIRE's independent judgment as lead agency pursuant to CEQA. CAL FIRE further finds that the proposed project, which includes revised activities and mitigation measures designed to minimize environmental impacts, will not result in significant adverse effects on the environment.

## Regulatory Guidance

This IS/MND has been prepared by CAL FIRE to evaluate potential environmental effects which could result following approval and implementation of the proposed project. This document has been prepared in accordance with current CEQA Statutes (Public Resources Code §21000 *et seq.*) and current CEQA Guidelines (California Code of Regulations [CCR] §15000 *et seq.*).

An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (14 CCR § 15063[a]), and thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines §15070, a "public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The initial study shows that there is no substantial evidence...that the project may have a significant impact upon the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions will reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project will not have a

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<sup>1</sup> A list and definition of the acronyms and symbols used in this CEQA document is presented on pages 113-116.



significant effect on the environment and, therefore, does not require the preparation of an environmental impact report. This IS/MND conforms to these requirements and to the content requirements of CEQA Guidelines Section 15071.

### **Purpose of the Initial Study**

CAL FIRE has primary authority for carrying out the proposed project and is the lead agency under CEQA. The purpose of this IS/MND is to present to the public and reviewing agencies the environmental consequences of implementing the proposed project and describe the adjustments made to the project to avoid significant environmental effects or reduce them to a less-than-significant level. This disclosure document is being made available to the public, and reviewing agencies, for review and comment. The IS/MND is being circulated for public and agency review and comment for a review period of 30 days as indicated on the notice of intent to adopt a mitigated negative declaration (NOI).

The requirements for providing an NOI are found in CEQA Guidelines §15072. These guidelines require CAL FIRE to notify the general public by utilizing at least one of the following three procedures:

- Publication in a newspaper of general circulation in the area affected by the proposed project,
- Posting the NOI on and off site in the area where the project is to be located, or
- Direct mailing to the owners and occupants of property contiguous to the project.

CAL FIRE has elected to utilize the second notification option. The NOI was posted at three prominent locations on and off site in the area where the project is located for the entire 30-day public review period.

1. Notices were posted on the Baker FS, at the Tehama-Glenn Headquarters office, and the Tehama County United States Post Office.

A complete copy of this CEQA document was made available for review by any member of the public requesting to see it at the locations identified above. An electronic version of the NOI and the CEQA document were made available for review for the entire 30-day review period through their posting on CAL FIRE's Internet Web Pages at:

[http://www.fire.ca.gov/resource\\_mgt/resource\\_mgt\\_EPRP\\_PublicNotice.php](http://www.fire.ca.gov/resource_mgt/resource_mgt_EPRP_PublicNotice.php)

If submitted prior to the close of public comment, views and comments are welcomed from reviewing agencies or any member of the public on how the proposed project may affect the environment. Written comments must be postmarked or submitted on or prior to the date the public review period will close (as indicated on the NOI) for CAL FIRE's consideration. Written comments may also be submitted via email (using the email address which appears below) but comments sent via email must also be received on or prior to the close of the 30-day public comment period. Comments should be addressed to:

Christina Snow, Senior Environmental Planner  
California Department of Forestry and Fire Protection  
Technical Services  
P.O. Box 944246  
Sacramento, CA 94244-2460  
Phone: (916) 324-1639  
Email: [sacramentopubliccomment@fire.ca.gov](mailto:sacramentopubliccomment@fire.ca.gov)

After comments are received from the public and reviewing agencies, CAL FIRE will consider those comments and may (1) adopt the mitigated negative declaration and approve the proposed project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, CAL FIRE could design and construct all or part of the project.

## **PROJECT BACKGROUND AND ENVIRONMENTAL SETTING**

### **Background and Need for the Project**

The original Baker Fire Station (FS) buildings were constructed in 1948, 1953, 1954 and 1991/92 two-engine station on a 4.22-acre parcel (003-170-037-000). The buildings currently onsite include barracks and mess hall, garage, fuel vault, 3-bay apparatus building and other site improvements including gravel areas and concrete and associated infrastructure improvements.

The area that Baker FS lies in consists mainly of upland agriculture (grazing) lands and scattered oak woodlands mixed with pines. The area protected by Baker FS includes 247,248 acres of State Responsibility Area (SRA). Topography in this area ranges from an elevation of 400 feet to over 5,000 feet. Development in the SRA served by Baker FS consists of rural ranch properties of 5 to 80 acres. The majority of the emergency responses from the Baker FS are to the east towards Red Bluff and Bowman with the largest fires historically occurring to the west.

The Baker FS houses two engines with four-person crews on each, resulting in a minimum of eight firefighters on duty each day during the eight-month peak staffing period.

Since construction of the Baker Fire Station several operational standards have changed, which renders the current structures inefficient and obsolete. Modern fire engines have become taller and wider to accommodate personnel safety and expanded responsibilities. These modern fire engines cannot fit into the existing apparatus bays. The existing structures onsite are too small and inefficient for modern firefighting crews, and the existing living quarters contain only one restroom with a crew of up to eight adults of different sexes. Design standards have also substantially changed since the station was constructed, and, although there have been regular maintenance improvements, the structures do not provide for a safe and healthy environment for the crew onsite. The structures can no longer accommodate the necessary equipment and staff to carry out CAL FIRE's mission.

## **Project Objectives**

The new facility will support CAL FIRE's mission to serve and safeguard the people and protect the property and resources within the State Responsibility Areas of the Tehama-Glenn Unit.

The following are the objectives of the proposed project:

- Replace the existing Baker FS with a new, modern facility that meets operational requirements.
- To improve CAL FIRE's ability to meet peak demand emergency incident workload through the enhancement of the statewide fire protection system.

## **Project Description**

The Baker FS Project consists of the demolition of an existing fire station and the construction of a new fire station and related facilities on the same site. The structures to be demolished include a barracks/mess hall building (2,200 sf), an office/exercise building (750 sf), an engine bay (900 sf), a gardening shed (120 sf), gas house (80 sf), a pump house (80 sf), and a hose rack (275 sf). The proposed replacement Fire Station consists of: 1) a 6-bed barracks/messhall building with attached apparatus building (7,280 sf), a storage building (640 sf) and a generator/pump building (635 sf). The proposed replacement forest fire station consists of: 1) a 2-engine, single building fire station with a Battalion Chief Office (7,164 sf), 2) a generator/pump/storage building (648 sf), and 3) ancillary improvements including grading, paving, curbs/gutters/sidewalks, new utilities, including fiber optic extension, storm drainage, septic system, water well, water storage tank and treatment system, hose wash rack and wharf hydrant, above ground fuel vaults. Other improvements include security fencing, gates, and lighting.

## **Project Region and Description of Local Environment**

Tehama County is located approximately 120 miles north of the City of Sacramento and roughly midway between Sacramento and the Oregon state border. Approximately 2,951 square miles in size, the western boundary of the county is the eastern side of the Pacific Coast Range and the eastern boundary extends into the Cascade Mountains near Mount Lassen. Surrounding counties include Shasta County to the north, Plumas and Butte counties to the east, Glenn County to the south, and Trinity and Mendocino counties to the west. Tehama County is bisected by the Sacramento River, which meanders in a general north-south direction through the central portion of the county.

There are three incorporated cities within Tehama County: Red Bluff, Corning and Tehama. Red Bluff, which is the county seat, was established in 1856. The topography of Tehama County varies significantly from east to west. The highest point is in the southernmost portion of the Cascade Mountains at approximately 9,000 feet above sea level in the eastern portion of the county. Moving west, topography descends through the foothills and rangeland to the fertile valley floor and the Sacramento River at a lowest point of 341 feet above sea level. Continuing westward, the topography rises again through rangeland and foothills into the Coast Range at 8,092 feet.

The climate of Tehama County varies significantly between the valley and mountain areas, depending primarily on elevation. Hot, dry summers and temperate winters generally characterize the valley regions, while mountainous areas experience warm, dry summers and colder winters.

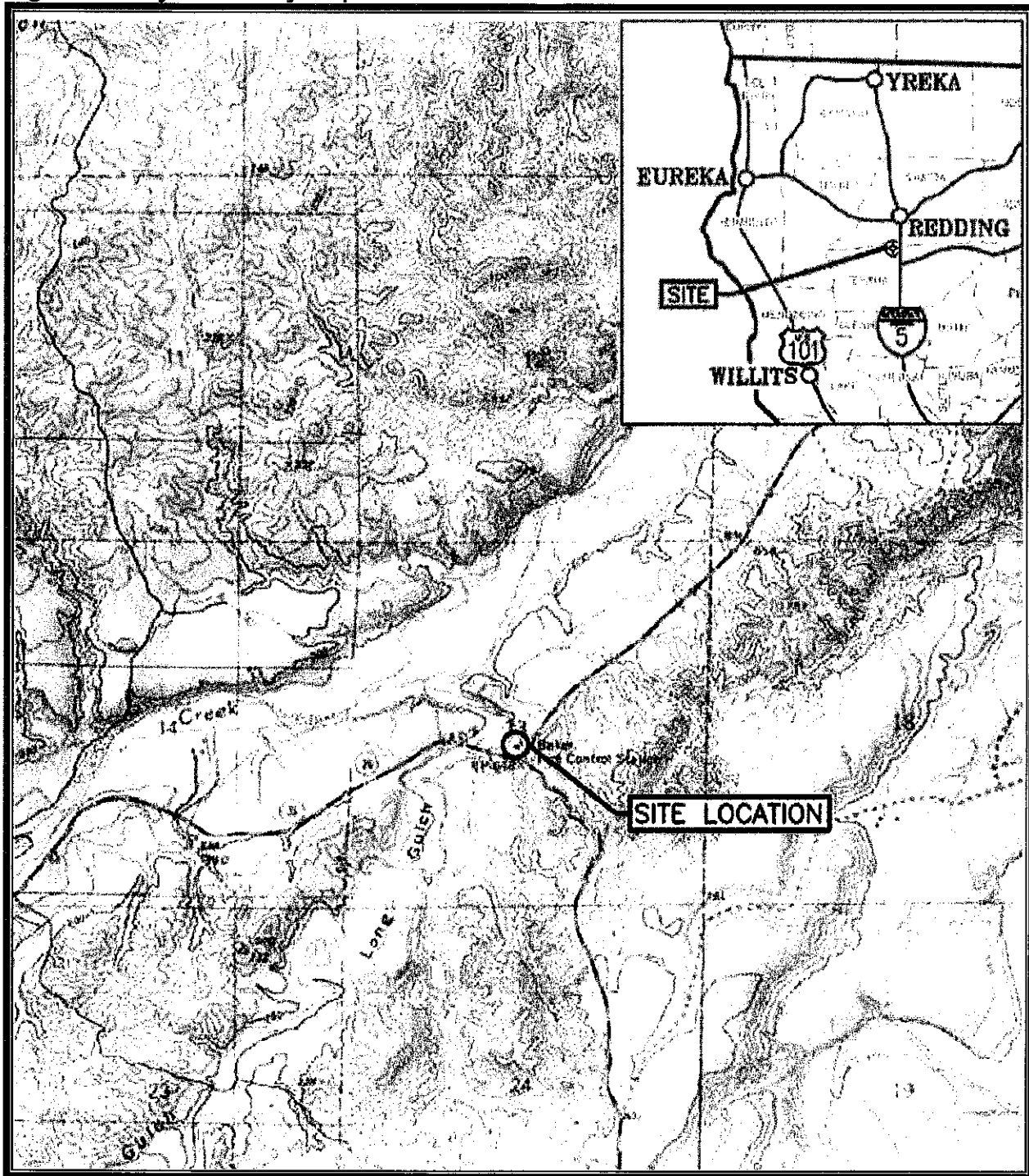
In 2006, the average July maximum temperature was 98 degrees in the valley and City of Red Bluff and 80 degrees in the mountain town of Mineral.

The project site is located at the intersection of Bowman Road and Highway 36 in Cottonwood, Tehama County, California. The approximate elevation of the subject site is 633 feet above mean sea level. The general slope of the land is to the west-northwest. The mean annual rainfall in the area is approximately 35 inches.

The subject site is zoned AG-1 160 Acre Min. The land within a ½-mile radius is primarily undeveloped, and there is only one residence nearby. No large-scale industrial facility, automobile salvage yard, livestock feed lot, or manufacturing facility operates on or immediately adjacent to the subject property.

The site is approximately 5.0 acres in size situated on a larger, 463-acre parcel. The southern portion of the site is a fire station. The central portion has been cleared, has ground vegetation, and is bordered by trees. The northern portion is vegetated and heavily forested in some areas. The existing fire station consists of an office building, barracks, fuel storage building, apparatus building, truck wash, hose rack, gravel driveways, water tank, well house, a large parking area, two aboveground fuel storage tanks (ASTs), and a Connex container.

**Figure 1: Project Vicinity Map**



**Figure 2: Project Location Map**





**Figure 3: Baker FS Building (Barracks and Messhall)**



**Figure 4: Front of Building**

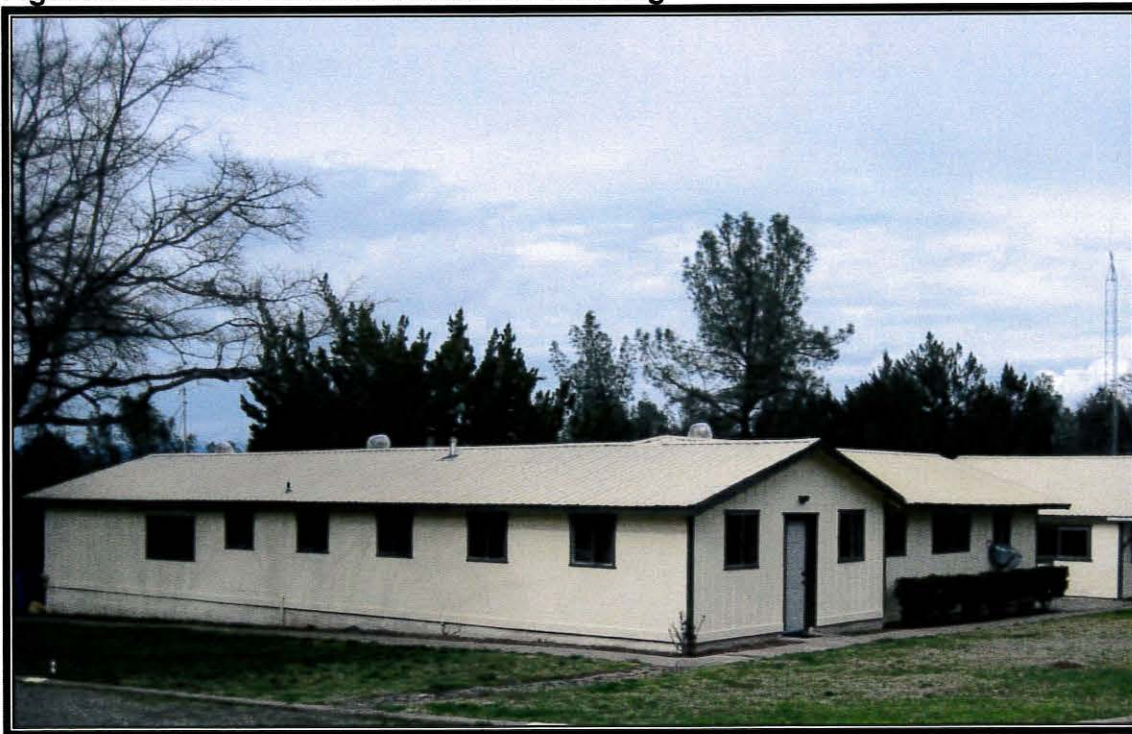




**Figure 5: Apparatus Building**



**Figure 6: Front of Barracks/Messhall Building**





**Figure 7: Front of Barracks/Messhall and Office**



**Figure 8: Oak Trees (Looking northeast)**





**Figure 9: Shed and Fuel Dispensers**

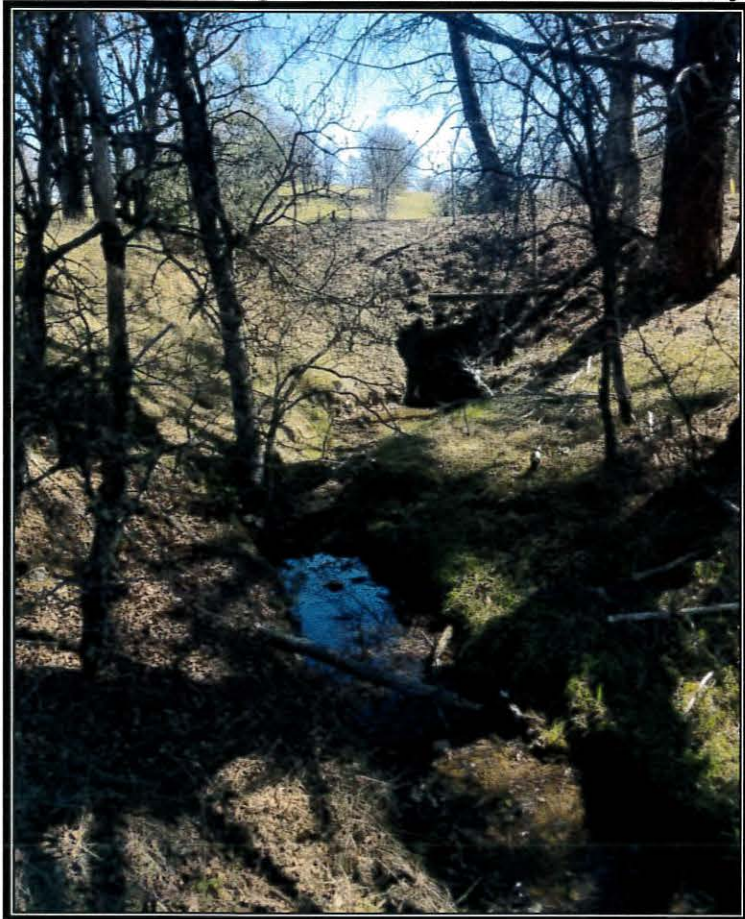


**Figure 10: Building and Above Ground Water Storage Tank**





**Figure 11: Drainage on the Northwestern boundary**



**Figure 12: Gravel Parking Area**





**Figure 13: Oak Woodland Area (northeastern portion of property)**



**Figure 14: Trees along Bowman Road (eastern property boundary)**





**Figure 15: View to the South on Property**



Figure 16: Existing Site Plan

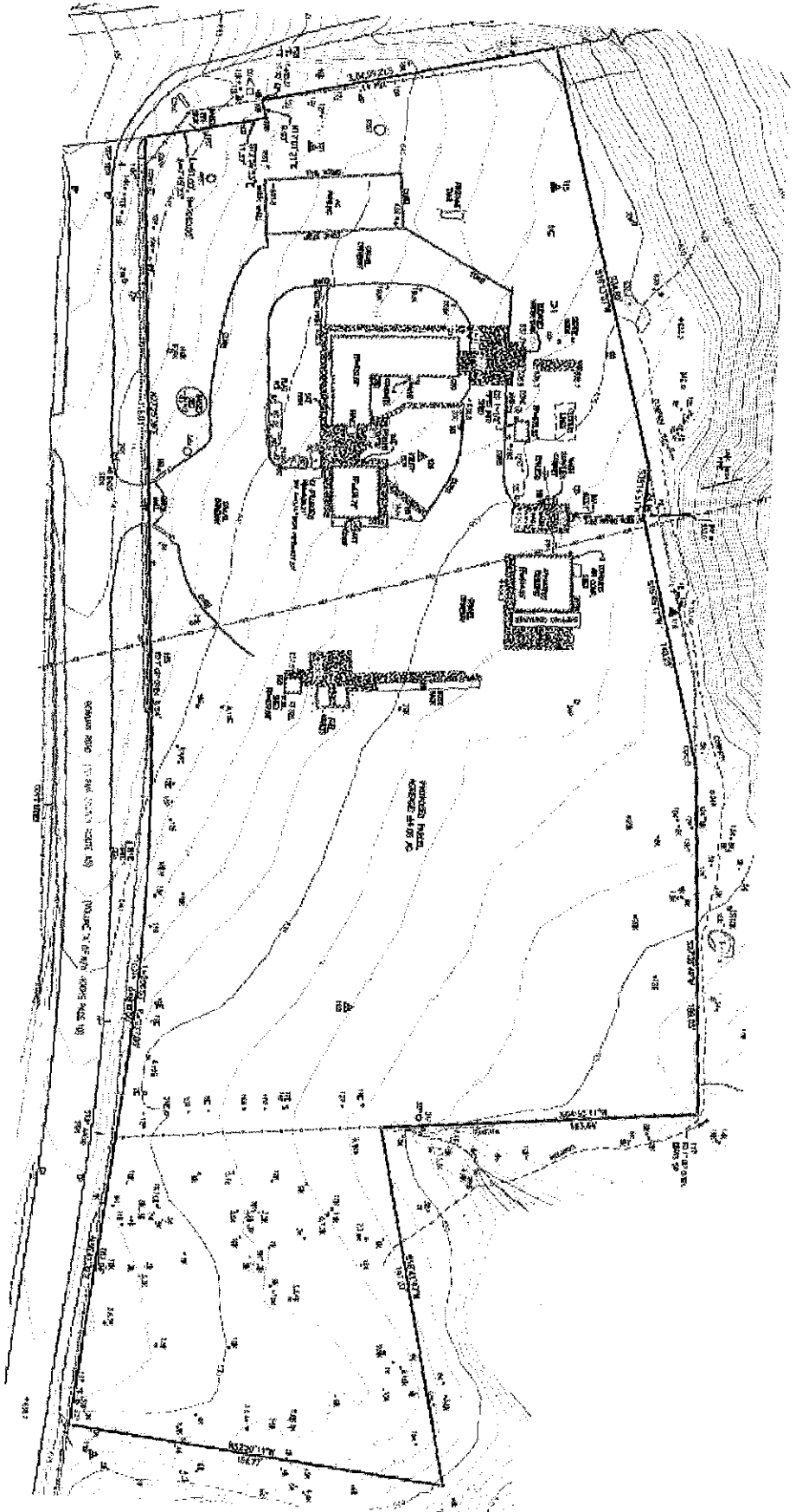
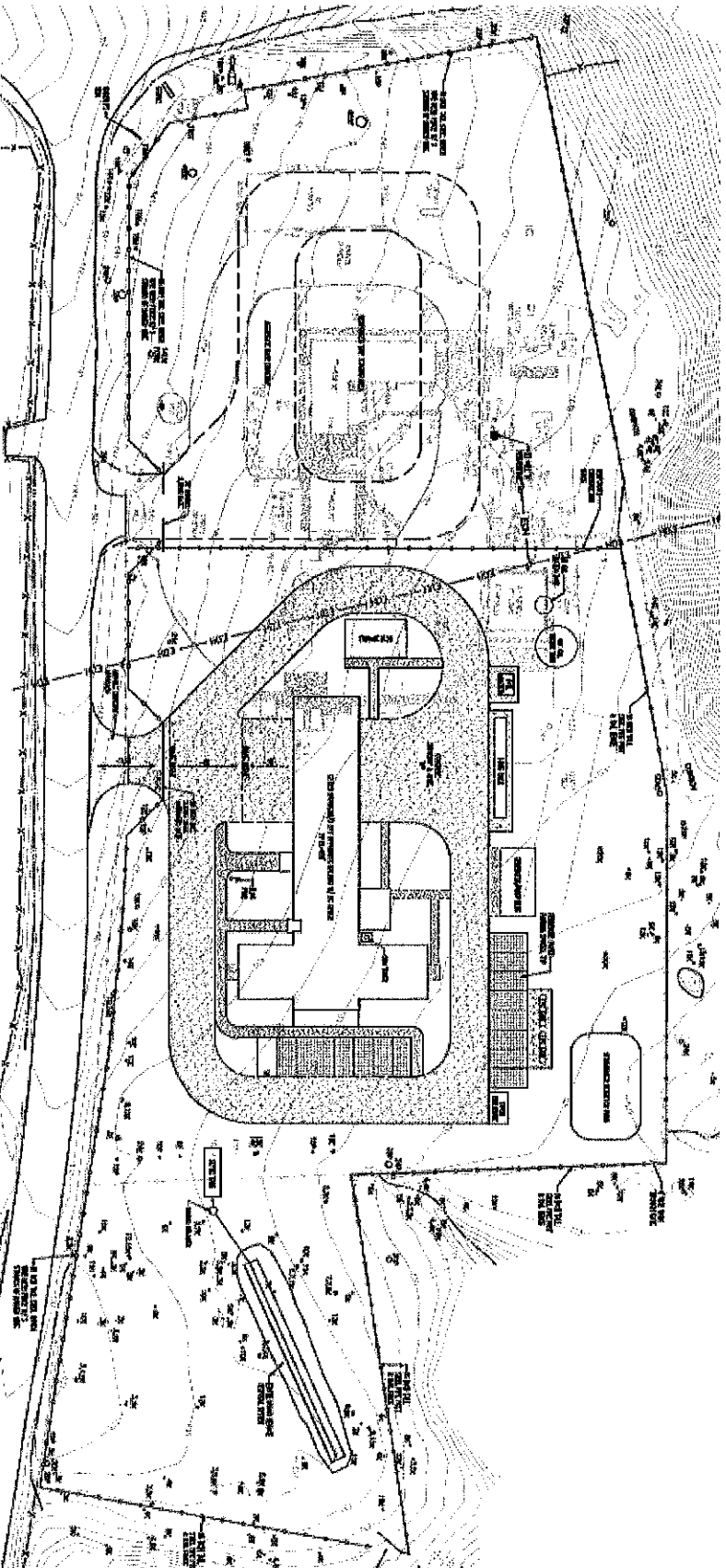


Figure 17: Proposed Site Plan



# **CONCLUSION OF THE MITIGATED NEGATIVE DECLARATION**

## **Regulatory Requirements, Permits and Approvals**

The proposed Project may require the following environmental permits and CAL FIRE may be required to comply with the following state regulations:

1. Road Encroachment Permit from Tehama County. The project will require road work along the driveway and will obtain the proper encroachment permit from the county.
2. National Pollutant Discharge Elimination System Permit (NPDES) – issued by the State Water Resources Control Board (SWRCB).
3. Storm Water Construction General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan – issued by the SWRCB.
4. Authority to Construct permit and Permit to Operate (for the generator and fuel tanks) – issued by the Tehama County Air Pollution Control District.
5. State Fire Marshal Review Approval.
6. State Architect Approval for Americans with Disabilities Act (ADA) and structural review by the Department of the State Architect (DSA).
7. Storm Water Pollution Control Plan (SWPCP) – reviewed by San Diego County Department of Public Works.

## **Mitigation Measures**

The following 8 mitigation measures will be implemented by CAL FIRE to avoid or minimize environmental impacts. Implementation of these mitigation measures will reduce the environmental impacts of the proposed project to a less than significant level.

### **Mitigation Measure BIO-1 Pre-Construction Nesting Survey**

1. Conduct a pre-construction nesting bird survey of all suitable habitat on the project site within 7 days prior to the commencement of construction during the nesting season (February 1 through August 31). Pre-construction nesting surveys are not required for construction activity outside of the nesting season (September 1 through January 31).

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 (or forester) in accordance with buffer distances relative to the species identified). If a nesting species is determined to be CESA or ESA listed, CDFW will be contacted to initiate a species consultation. Consultation will result in appropriate mitigation measures that will be applied to prevent disruption of essential behavior patterns (breeding).

Once construction activities commence on-site, all nests will be continuously monitored by a qualified biologist (or forester) to detect any behavior changes as a result of construction of the proposed project. If behavioral changes are observed that may result in adverse effects to



the success of breeding, the work causing the change shall cease and consultation with CDFW shall be initiated to identify potential avoidance and minimization measures that will prevent the disruption of essential behavioral patterns (breeding).

The buffer shall be maintained and no ground-disturbing or construction activities can occur until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist (or forester). Once the young are independent of the nest, no further measures are necessary and construction may commence.

**Mitigation Measure CR-1 Accidental Discovery:**

In the event of discovery of cultural or paleontological resources, work shall cease in that area while the CAL FIRE archeologist and tribal representative evaluate said find. Construction work may continue in other areas of the project, as determined by the CAL FIRE archaeologist, until the discovery is examined and evaluated. Unanticipated discoveries of cultural resources shall include: (1) appropriate documentation (site record(s)) and (2) re-burying on site in a location where the cultural resources will not be disturbed in the future. Paleontological resources shall be treated as prescribed by the CAL FIRE archaeologist. The CAL FIRE archeologist shall notify the project director when work can continue in the area of the discovery.

**Mitigation Measure CR-2 Human Remains:**

In the event of discovery of human remains, whether intact, fragmentary, or displaced from their original context, the County Coroner and the Native American Heritage Commission, West Sacramento (916-653-4082), shall be notified of the discovery immediately, and all work in the vicinity of the find shall cease, as determined by the CAL FIRE archaeologist, and there shall be no further excavation or disturbance of the find site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of that county in which the remains are discovered has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. Public Resources Code Section §5097.98 specify the procedures to be followed in the event of discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the Native American Heritage Commission. Upon request, the Native American Heritage Commission will provide the project director with a list of most likely descendants, who will specify treatment and disposition of any Native American remains found within the area of potential effect of the project. Final disposition of the human remains is subject to approval of the landowner. Human remains and associated grave goods are protected under Public Resources Code § 5097.94 and Health and Safety Code § 7050.5.

**Mitigation Measure HAZ-1: Demolition Requirements**

Demolition activities shall be performed under the direction of an Independent State Certified Asbestos Consultant with oversight performed by a State Certified Site Surveillance Technician. All materials shall be disposed of at an approved facility licensed to handle such waste.

**Mitigation Measure HAZ-2: Notification to Contractors and Building Occupants**

In accordance with OSHA Construction Asbestos Standards, CAL FIRE shall notify the following persons of the presence, location and quantity of asbestos or material presumed to contain asbestos at any concentration, at the work sites in their buildings and facilities:

1. Prospective contractors applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material;
2. Employees who will work in or adjacent to areas containing such material;
3. All employers of employees who will be performing work within or adjacent to areas containing such materials; and
4. CAL FIRE staff who occupy areas containing such material or will be overseeing work conducted onsite.

**Mitigation Measure HAZ-3: Notification to EPA and Air Resources Board**

CAL FIRE shall submit NOTIFICATION OF DEMOLITION AND RENOVATION to EPA Region IX and the California Air Resources Board at least 30 days prior to demolition activities.

**Mitigation Measure HAZ-4: OSHA Pre-job Notification**

In accordance with CCR, Title 8, Section 1532.1(e) and (l), the contractor shall provide a written Pre-job Notification to the nearest Cal/OSHA office within 24 hours of the start of work.

**Mitigation Measure HAZ-5: Universal Waste and Hazardous Building Materials**

The following shall be implemented prior to demolition -

**Fluorescent and HID Lights**

Fluorescent light tubes and HID light bulbs shall be removed from the light fixtures and managed for recycling prior to demolition activities that may impact the material.

**Fluorescent Light Ballasts**

Fluorescent light ballasts shall be inspected for PCB status (labeling) prior to demolition work that may impact the light fixtures. Fluorescent light ballasts that are unlabeled or lack a "No PCBs" designation shall be treated as PCB-containing components and managed as a hazardous waste.

**Refrigerants**

The pad-mounted HVAC unit (barracks/mess hall), wall-mounted air conditioner (office/exercise room), refrigerators and ice machine (barracks/mess hall) shall either be reused or have the refrigerant in the equipment reclaimed for recycling prior to demolition activities that may result in the equipment being managed for recycling or disposal.

**Gasoline and Diesel Fuels**

The gasoline and diesel fuel in the two fuel ASTs shall be used and the convault ASTs managed for reuse, as appropriate, if tested and determined to be free from leaks. The fuel in the ASTs shall be used/drained and the tanks cleaned if they are to be decommissioned prior to demolition activities that may impact the ASTs.

**Electrical Transformer**

The utility owner of the pole-mounted electrical transformer shall be contacted to decommission and remove the transformer prior to demolition operations that may impact the transformer.

#### **Cathode-ray Tube Equipment**

The television and computer monitor with possible cathode-ray tubes located in the office/exercise room shall be removed intact and managed for reuse or for recycling prior to demolition operations that may impact the equipment.

#### **Surplus Automotive Fluids, Paints, Solvents, Pesticides**

Surplus portable containers of automotive fuel, and retail-sized containers of automotive products, paints, solvents, and pesticides may be reused as appropriate or managed for recycling or disposal at facilities that accept these materials/products prior to demolition activities that may impact buildings (engine bay, gardening shed, gas house and contractor's box) where these materials are stored.

### **Summary of Findings**

This IS/MND has been prepared to assess the project's potential effects on the environment and an appraisal of the significance of those effects. Based on this IS/MND, it has been determined that the proposed project will not have any significant effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project will have no effect related to Land Use and Planning, Mineral Resources, Population and Housing, Public Services, and Recreation.
2. The proposed project will have a less than significant impact on Aesthetics, Agricultural Resources, Air Quality, Energy, Geology and Soils, Greenhouse Gas Emissions, Hydrology and Water Quality, Noise, Traffic and Transportation and Utilities and Service Systems.
3. Mitigation is required to reduce potentially significant impacts related to Biological Resources, Cultural Resources, and Hazards and Hazardous Materials.

The initial study-environmental checklist included in this document discusses the results of resource-specific environmental impact analyses, which were conducted by the Department. This initial study revealed that potentially significant environmental effects could result from the proposed project; however, CAL FIRE revised its project plans and has developed mitigation measures that will eliminate impacts or reduce environmental impacts to a less than significant level. CAL FIRE has found, in consideration of the entire record, that there is no substantial evidence that the proposed project, as currently revised and mitigated, would result in a significant effect upon the environment. The IS/MND is therefore the appropriate document for CEQA compliance.


## INITIAL STUDY/ENVIRONMENTAL CHECKLIST

<b>PROJECT INFORMATION</b>					
1. Project Title:	Baker Fire Station Replacement Project				
2. Lead Agency Name and Address:	California Department of Forestry and Fire Protection P.O. 944246 Sacramento, CA 94244-2460				
3. Contact Person and Phone Number:	Christina Snow 916-324-1639				
4. Project Location:	14800 Bowman Road, Cottonwood, CA 96022				
5. Project Sponsor's Name and Address:	N/A (CAL FIRE is project sponsor and lead agency)				
6. General Plan Designation:	Upland Agriculture				
7. Zoning:	Agricultural/Upland (AG-1)				
8. Description of Project: See Page 3 of this document					
9. Surrounding Land Uses and Setting:	Agricultural				
10: Other public agencies whose approval may be required:	See page (s) 23 of this document				
<b>ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:</b>					
<p>The environmental factors checked below are the ones which would potentially be affected by this proposed project and were more rigorously analyzed than the factors which were not checked. The results of this analysis are presented in the detailed Environmental Checklist which follows.</p>					
<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology / Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input checked="" type="checkbox"/>	Hazards & Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input checked="" type="checkbox"/>	Transportation / Traffic	<input type="checkbox"/>	Utilities / Service Systems
<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance	<input type="checkbox"/>	

### Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** would be prepared.
- ☒ I find that although the proposed project **COULD** have a significant effect on the environment, there **WOULD 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** would be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed 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 proposed project **COULD** have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
\_\_\_\_\_  
Helge Eng  
Deputy Director, Resource Management  
California Department of Forestry and Fire Protection

  
\_\_\_\_\_  
Date

# ANALYSIS OF POTENTIAL ENVIRONMENTAL IMPACTS

## AESTHETICS

### Environmental Setting

Tehama County can generally be described as three geographical parts. The eastern one-third of the county consists of the Cascade Mountains and foothills, the western third consists of the Pacific Coast Range and foothills, and the center third of the county consists of the Central Valley. The urbanized areas of the county such as Red Bluff, Corning, Tehama, and Los Molinos are all located within the Central Valley. Agricultural lands are located in the Central Valley and in the foothills.

The project site is in a rural area at the corner of State Route 36 (SR-36) and Bowman Road west of the communities of Red Bluff and Cottonwood. The topography of the area consists of rolling hills covered in native grasslands and oak woodlands.

Development is minimal in the area and the nearest residence is approximately 500 feet to the west on the other side of Long Gulch (a Cottonwood Creek tributary). The next nearest residence is approximately 0.6 of a mile to the southeast. The area is visually appealing and typical of a predominately undeveloped natural area.

State Route 36 from Bowman Road westward to Shasta County is designated as a County Scenic Highway in Tehama County's General Plan (January 2009).

### Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project site is currently developed with an active Fire Station and ancillary structures. The new Baker FS will be constructed on the same site and would not directly impact any public scenic resources or scenic vistas or obstruct the views of these visual resources. Impacts will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Caltrans has designated certain highways throughout California as state scenic highways. In addition, Caltrans also identifies those highways that are eligible for state scenic designation throughout the state. SR-36 in Tehama County is not designated and is not identified as eligible for designation. However, the county has designated the route as a county scenic highway.

The construction of the new Baker FS will not significantly change the visual character of the project site as it is currently developed with an active station and the project would not alter the surrounding visual character. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project consists of the replacement of an existing fire station and associated accessory structures. The proposed project will construct similar structures that are on the project site now. A new perimeter security fence will be constructed as the station has been broken into on several occasions.

The new Baker FS and project components will use natural colors and features to blend into the surrounding environment. Although some trees would be removed as a result of the proposed project, the new station will not substantially degrade the visual character or quality of the site and its surroundings. The project will have a less than significant impact on the visual character of the site.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As indicated in the environmental setting above, the site is developed with an existing fire station and accessory structures which have nighttime lighting. Replacement of the new

buildings will not create an adverse impact on day views in the area. The new facilities onsite will have nighttime lighting installed that will not be substantially different than current conditions. No residential uses are near the project site. All project lighting will adhere to Title 24, Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Part 6) exterior lighting requirements which include:

- 1) All outdoor luminaries will follow the Backlight, Uplight and Glare requirements. In addition, all lighting areas luminaires (parking lot) will be provided with a full cut off house side shield.
- 2) All outdoor luminaries with bottoms less than 24 feet above finished grade will be controlled by a motion sensor so when the area is unoccupied there is a 40%-80% power reduction and will be equipped with auto functionality.

Project impacts with regards to lighting or glare will be less than significant.

## **AGRICULTURE AND FOREST RESOURCES**

### **Environmental Setting**

The area surrounding the project site is designated as Upland Agriculture (includes grazing, portions of cropland, and national park lands) in the general plan and zoned Agricultural/Upland (AG-1). The project site was a part of a larger parcel that was recently purchased by CAL FIRE (4.06 acres out of a 356-acre parcel). The general plan designation and zoning remain the same. The project site has never been used for agricultural purposes.

These land designations are capable of supporting grazing activities, providing areas for intensive and extensive agriculturally-compatible uses, and for conserving areas of important open space, recreation, scenic, and natural value. In addition, these lands can accommodate the use of land for compatible non-agricultural uses including commercial recreation, hunting and fishing, resource protection and management, and habitat management.

The surrounding properties are also designated as Upland Agriculture.

a) Would the project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The California Farmland Mapping and Monitoring Program (FMMP), Tehama County Important Farmland 2016 map designated the project site as Farmland of Local Importance. Farmland of Local Importance is either currently producing crops, has the capability of production, or is used for the production of confined livestock. In Tehama County, Farmland of Local Importance includes areas of soils that meet all the characteristics of Prime Farmland or



of additional Farmland of Statewide Importance with the exception of irrigation. These farmlands include dry-land grains, haylands, and dry-land pasture.

The site has been developed as an active fire station since the 1960s. The proposed project will not convert any farmland that is mapped in the FMMP. Although the new buildings will have a minimum useful life of 50 years and will preclude any future agricultural uses, the site has not been used for agricultural purposes for many years. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not under a Williamson Act contract. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As described, the project is zoned AG-1 and is not zoned as timberland. The site does not contain timberland resources and is not capable of timberland production. No impact would occur.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in the environmental setting above, the site is developed with an active fire station. The site does not contain forest land and the project will not result in the conversion of such land. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is zoned AG-1 (Agricultural/Upland), but has not been used for agricultural purposes. The surrounding area is also agricultural in nature. The proposed project will replace an existing use that has been onsite for approximately 50 years and will not result in the conversion of farmland to non-agricultural use. No impact would occur.

## AIR QUALITY

### Environmental Setting

The project site is located in the Northern Sacramento Valley Air Basin (NSVAB), which is one of the air "sub-basins" within the Sacramento Valley Air Basin. The other sub-basin is the Greater Sacramento Air region. The NSVAB encompasses Shasta, Tehama, Glenn, Butte, Colusa, Sutter, and Yuba counties. The basin's principal geographic features include a large valley bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada. The basin is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the valley floor averages only about 50 miles in width. The mountain ranges reach heights in excess of 6,000 feet with peaks rising much higher.

The area climate is characterized by hot, dry summers and cool, wet winters. During the summer months from mid-April to mid-October, significant precipitation is unlikely and temperatures range from daily maximums exceeding 100° Fahrenheit (°F) to evening lows in high 50s and low 60s. During the winter, highs are typically in the 60s with lows in the 30s. Wind direction is primarily along the valley due to the channeling effect of the mountains to either side of the valley. During the summer months, surface air movement is from the south, particularly during the afternoon hours. During the winter months, wind direction is more variable.

The quantity of air pollutant emissions generated within the NSVAB is small compared to the more densely populated areas such as the Sacramento and the San Francisco Bay areas. Nevertheless, the following characteristics of the NSVAB make it susceptible for the build-up of air pollution:

- Pollution generated in the broader Sacramento area and San Francisco Bay area can be transported northward into the NSVAB.
- The mountain ranges to the west, north, and east of the NSVAB act as horizontal barriers which restrict the flow of pollution out of the basin.

- The valley portion of the NSVAB (those areas below 1,000 feet elevation) is often subjected to temperature inversions that typically occur during cool, calm nights that restrict vertical mixing and dilution of pollutants.
- The typical clear skies and warm temperatures in the summer months promote the formation of the photochemical pollutant ozone.

## **REGULATORY SETTING**

The following is a description of the regulatory setting in the vicinity of the project site.

### **Federal and State**

The federal and state governments have enacted laws mandating the identification of areas not meeting the ambient air quality standards and development of regional air quality plans to eventually attain the standards. National ambient air quality standards are determined by the US Environmental Protection Agency (EPA). The standards include both primary and secondary ambient air quality standards. Primary standards are established with a safety margin.

Secondary standards are more stringent than primary standards and are intended to protect public health and welfare. States have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards. Federal and State air quality standards have been established for ambient air pollutants, commonly referred to as "criteria" air pollutant standards based on a comprehensive review of their health effects. The criteria air pollutants for which federal and state ambient standards have been established include ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), suspended particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>) and lead. In this analysis, O<sub>3</sub> is evaluated by assessing emissions of O<sub>3</sub> precursors: reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>).

The federal and California state ambient air quality standards are summarized in **Table 1**.

Table 1. Ambient Air Quality Standards

Ambient Air Quality Standards							
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>			
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,5</sup>	Method <sup>7</sup>	
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )			
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—			
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)	
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—		
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard		
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )		
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	—		
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>	—		
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard		
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>			
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards			
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence				
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography				

See footnotes on next page ...

See footnotes on next page ...

For more information please call ARB-FIO at (916) 322-2990

California Air Resources Board (5/4/16)

Under the federal Clean Air Act, Tehama County is currently considered in attainment or unclassified for all national ambient air quality standards, except for ozone. Previous to 2008, Tehama County was considered in attainment for ozone, however, in March 2008 the EPA revised the attainment standard for O3 to 75 parts per billion (ppb) from 84 ppb. The county is a nonattainment area for the more stringent state ambient air quality standards for O3 and PM10.

Tehama County currently exceeds the State's ambient standards for O3 and particulates. Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning.

### **Tehama County Air Pollution Control District**

The Tehama County Air Pollution Control District (TCAPCD) is one of six air pollution control or air quality management districts that make up the NSVAB. The NSVAB consists of Shasta, Tehama, Glenn, Butte, Colusa, and Feather River districts. These six air districts work together to employ a regional approach to air pollution control. The TCAPCD boundaries are the same as Tehama County's.

Within Tehama County, the TCAPCD is the local air quality agency responsible for adopting and enforcing controls on stationary sources of air pollutants through its permit and inspection programs. Other District responsibilities include monitoring air quality, regulating agricultural burning, preparation of clean air plans, and responding to air quality complaints from citizens.

### **Significance Thresholds**

The following describes significance thresholds applied in this letter report. These thresholds are from the TCAPCD document *Air Quality Planning & Permitting Handbook – Guidelines for Assessing Air Quality Impacts* (Tehama County Air Pollution Control District 2015).

### **Criteria Pollutant Emissions**

The TCAPCD uses strategies to reduce emissions associated with new and modified indirect sources of pollution in an effort to accurately determine and mitigate project-related impacts to the extent feasible. Emission reduction goals of 20 to 25 percent are established depending on the projected level of unmitigated emissions for a project. Mitigation thresholds are established for the important regional/local pollutants, including: ROG and NOx, which are ozone precursors, and PM10. The mitigation thresholds for these pollutants are tiered at three levels as shown in the enclosed **Table 2**.



**Table 2. Air Quality Significance Thresholds for Criteria Pollutants**

Pollutant	Level A	Level B	Level C
Nitrogen Oxides (NO <sub>x</sub> )	≤ 25	> 25 and ≤ 137	> 137
Reactive Organic Gases (ROG)	≤ 25	> 25 and ≤ 137	> 137
Inhalable Particulate Matter (PM <sub>10</sub> )	≤ 80	> 80 and ≤ 137	> 137
Level of Significance	Potentially Significant Impact	Potentially Significant Impact	Significant Impact
Environmental Document	Mitigated Negative Declaration (MND) or ND	MND or Environmental Impact Report (EIR)	EIR
<p>Notes: All values are expressed as pounds per day.  Source: Tehama County Air Pollution Control District 2015.</p>			

If a project has unmitigated emissions less than or equal to the Level “A” threshold, then it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMM) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise. Land uses that generate unmitigated emissions above Level “A” require application of appropriate Best Available Mitigation Measures (BAMM) in addition to the SMM to achieve a net emission reduction of 20 percent or more. If after applying SMM and BAMM a project still exceeds the Level “B” threshold, additional measures, including off-site mitigation measures, may be required and an environmental impact report (EIR) may be required.

Using the approach presented in the *Air Quality Planning & Permitting Handbook – Guidelines for Assessing Air Quality Impacts*, all projects are initially considered to be either potentially significant or significant. No projects that increase emissions are considered initially less than significant. Mitigation measures are specified for all levels of projects. For this project,

application of the mitigation measures specified in the handbook is considered to reduce the impact to a less-than-significant level. Emissions meeting Level A thresholds will require SMM, emissions in the Level B range will require BMM; and emissions which exceed Level C thresholds will require the most extensive mitigation measures. The following is the description of SMM applicable to the Baker FS Project presented in Chapter 5 of the *Air Quality Planning & Permitting Handbook – Guidelines for Assessing Air Quality Impacts* (Tehama County Air Pollution Control District 2015):

- “Increase building energy efficiency rating by 10% above what is required by Title 24 requirements. This can be accomplished in a number of ways (increasing attic, wall or floor insulation, etc.).
- “Improvement of thermal efficiency of commercial and industrial structures as appropriate by reducing thermal load with automated and timed temperature controls, or occupancy load limits.
- “Incorporate shade trees, adequate in number and proportional to the project size, throughout the project site to reduce building heating and cooling requirements.
- “Use fleet vehicles that run on clean-burning fuels as may be practicable.”

#### **Analysis Software**

Short-term construction-related and long-term operational emissions associated with the Baker FS Project were estimated using the CalEEMod emissions modeling program (California Air Pollution Control Officers Association 2018). CalEEMod is a land use emissions computer model designed to provide a platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operation of a variety of land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

More detailed information on the CalEEMod model is available at the internet website <http://caleemod.com/>. Output files from the CalEEMod model, as applied to the Baker FS Project, are presented in the enclosed Technical Appendix.

The CalEEMod emissions model contains default data characterizing the construction and operation of land use development projects, such as the Baker FS Project. The CalEEMod default values were used except where:

- project-specific data are available,
- data specific to the location of the project site are available, and
- updated technical data are available.

Project-specific data included the size of the project site, the construction schedule, and vehicle trip generation estimates (Hawes pers. comm., and Snow pers. comm.).

CalEEMod has separate databases for specific counties and air districts. The Tehama County

database was used for the Baker FS Project. Updated technical data included use of CO2 energy intensity factors (The Climate Registry 2018).

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The primary way of determining consistency with the air quality plan's (AQPs) assumptions is determining consistency with the applicable general plan to ensure that the project's population density and land use are consistent with the growth assumptions used in the AQPs for the air basin.

As required by California law, city and county general plans contain a land use element that details types and quantities of land uses that the city or county estimates will be needed for future growth, and that designates locations for land uses to regulate growth. Existing and future pollutant emissions computed in the AQP are based on land uses from general plans. AQPs detail the control measures and emission reductions required for reaching attainment of the air standards.

The project is proposing to replace an existing facility and is not proposing any change in operations or staffing. Therefore, the project is consistent with the growth assumptions used in the applicable AQPs. As a result, the proposed project would not conflict with or obstruct implementation of any applicable AQPs.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project's air quality impacts are attributed to short-term demolition and construction-related activities and long-term operational activities. The emissions were estimated using the CalEEMod emissions modeling program. The proposed project will be considered to result in significant air quality impacts if it would result in emissions greater than the significance thresholds identified in the environmental setting section.



### ***Short-Term Construction Impacts***

The Baker FS Project will generate short-term construction-related emissions. The following describes criteria pollutant and GHG emissions that would be generated by the project.

- 0.51 pounds per day (ppd) of ROG emissions,
- ppd of NOx emissions, and
- 0.52 ppd of PM10 emissions.

The amount of ROG, NOx, and PM10 emissions would be less than the TCAPCD Level A thresholds. However, as noted earlier, projects that would result in emissions less than the Level A thresholds are initially considered to have a significant impact. Application of the following SMM (Tehama County Air Pollution Control District 2015) are considered to reduce this impact to a less-than-significant level:

- "Increase building energy efficiency rating by 10% above what is required by Title 24 requirements. This can be accomplished in a number of ways (increasing attic, wall or floor insulation, etc.).
- "Improvement of thermal efficiency of commercial and industrial structures as appropriate by reducing thermal load with automated and timed temperature controls, or occupancy load limits.
- "Incorporate shade trees, adequate in number and proportional to the project size, throughout the project site to reduce building heating and cooling requirements.
- "Use fleet vehicles that run on clean-burning fuels as may be practicable."

The Baker FS is being constructed under the Executive Order (EO) B-18-12 which requires state agencies to implement Zero Net Energy (ZNE) standards. The facilities that are constructed under these standards are required to produce as much clean renewable energy as it consumes over the course of a year.

With implementation of the ZNE requirements, the impact of the Baker FS Project on construction related criteria pollutant emissions is considered to be less than significant.

### **Naturally Occurring Asbestos (NOA)**

Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. Asbestos is commonly found in ultramafic rock and near fault zones. The amount of asbestos that is typically present in these rock ranges from less than 1% up to approximately 25% and sometimes more. It is released from ultramafic rock when it is broken or crushed. This can happen when cars drive over unpaved roads or driveways, which are surfaced with these rocks, when land is graded for building purposes, or at quarrying operations. Asbestos is also released naturally through weathering and erosion. Once released from the rock, asbestos can become airborne and may stay in the air for long periods

of time. Asbestos is hazardous and can cause lung disease and cancer dependent upon the level of exposure. The longer a person is exposed to asbestos, the greater the intensity of the exposure, and the greater the chances for a health problem.

The site is not located within an area mapped as an ultramafic rock unit. Naturally occurring asbestos (NOA) minerals (chrysotile, tremolite, actinolite) are more likely to be encountered in areas with ultramafic or sheared metavolcanic rocks due to metamorphic processes. Based on the site geology, which consists of Pliocene-Pleistocene rock formation, the likelihood of NOA being present at the site is considered to be low.

### **Long-Term Operational Emissions**

Long-term operation of the Baker FS Project will generate emissions. However, the project would not result in an increase in the level of long-term operational activity and would not substantially change the amount of operational emissions from the baseline.

Implementation of the Baker FS Project would result in operational emissions equivalent to baseline "No Project" operational emissions.

Operation of the Baker FS Project would generate:

- 0.26 ppd of ROG emissions,
- 0.53 ppd of NO<sub>x</sub> emissions, and
- 0.15 ppd of PM<sub>10</sub> emissions.

Because implementation of the Baker FS Project would result in operational emissions equivalent to baseline "No Project" operational emissions, the impact of the project on operational criteria pollutant emissions is considered to be less than significant. No mitigation measures are required.

c) Would the project 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Tehama County currently exceeds the State's ambient standards for O<sub>3</sub> and particulates. Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning.

The Baker FS project will replace an existing fire station and would not result in an increase in the level of long-term operational activity and would not substantially change the amount of operational emissions from the baseline.

The Baker FS Project will generate short-term construction-related emissions. As indicated in item b), the Baker FS is being constructed under the Executive Order (EO) B-18-12 which requires state agencies to implement Zero Net Energy (ZNE) standards. The facilities that are constructed under these standards are required to produce as much clean renewable energy as it consumes over the course of a year.

With implementation of the ZNE requirements, the impact of the Baker FS project would not 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. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Sensitive receptors refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses that have the greatest potential to attract these types of sensitive receptors include schools, parks, playgrounds, daycare centers, nursing homes, hospitals, and residential communities. From a health risk perspective, the Baker FS Project is located within a rural area that does not have nearby sensitive receptors and the project would not create substantial pollutant concentrations. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 a psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

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.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the air district. Any project with the potential to frequently expose members of the public to objectionable odors should be deemed to have a significant impact.

Construction of the proposed project could result in minor amounts of odor associated with diesel heavy equipment exhaust. However, construction equipment will be operating at various locations throughout the project site, and no sensitive receptors are located within the vicinity. Additionally, long-term operations of the new facilities would not generate significant odorous emissions. Any odor produced by the Baker FS operations would be minimal and be contained onsite. Therefore, a less than significant impact would occur.

## **BIOLOGICAL RESOURCES**

A Biological Resources Assessment (BRA) was prepared for the proposed project by CAL FIRE staff in August 2018. The purpose of the assessment was to collect information on the biological resources that had potential to be present within the project area and to determine any biological constraints to site construction. A botanical survey was conducted on May 15, 2018. No plants recorded on the CNDDDB query were detected during survey efforts.

The BRA provided information on the potential for sensitive vegetation communities and special-status plants and wildlife species, including species listed as endangered or threatened under the California or Federal Endangered Species Act (CESA and ESA), to occur onsite. Additional information was obtained from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) Rare Plant Ranking System. The results of the assessment are separated into two tables and presented below, (See Table 1 and 2).

## **ENVIRONMENTAL SETTING**

### **VEGETATION COMMUNITIES**

The new proposed development area is un-developed and has been used to graze cattle in the past. It is located to the northeast of the existing developed fire station. The overstory vegetation consists of native oaks species and foothill pines, (*Q. chrysolepis*, *Q. douglasii*, *Q. turbinella*, *P. sabiniana*), with an understory consisting of California native and non-native grassland species, including the grasses slender wild-oat (*A. barbata*) six-weeks fescue, (*V. octoflora*), rattail fescue, (*V. myuros*), Annual ryegrass, (*L. perenne* L.), Bottlebrush Squirrel tail (*S. hystrix*) and California brome (*B. carinatus*). Present in abundance are yellow star thistle (*C. solstitialis*), an invasive species, as well as barbed goat grass, (*A. triuncialis* L.) and

medusa head, (*T. caput-medusae*). The shaded areas under native oak trees support several native shrubs and herbs, including California blackberry (*Rubus ursinus*), poison-oak (*Toxicodendron diversilobum*), and miner's-lettuce (*Claytonia perfoliata subsp. p.*). Non-native herbs include chickweed (*Stellaria media*), Filaree (*Erodium spp.*), and rose clover (*T. hirtum*).

## POTENTIAL WATERS OF THE U.S.

No potential Waters of the U.S. were found within the project area, and there are no wetland features onsite identified on wetland maps. Long Gulch is approximately 400 feet to the west.

## WILDLIFE

Wildlife in the vicinity that have been seen onsite include skunks, raccoons, mice, turkeys, deer, bobcat, squirrels, coyote, and gophers. Several different types of bird species that are known to use the site include woodpeckers, hummingbirds, finches, sparrows, blue jays, crows and red-tailed hawks. Although wildlife have been known to use the site, there are no known wildlife corridors that lie within the project site.

### SPECIAL-STATUS WILDLIFE

No special-status animals have been observed by CAL FIRE Forester II, Dawn Pedersen (Unit Forester). However, several special status animals have been documented within the nine-quadrangle biological assessment area of the project site. The special-status animals are provided in Table 1.

**Table 3. Special-Status Wildlife Species Within Nine Quadrangle Biological Assessment Area of Project Site.**

Species Common Name	Species Scientific Name
Foothill yellow-legged frog	<i>Rana boylei</i>
Western spadefoot	<i>Spea hammondi</i>
Bald eagle	<i>Haliaeetus leucocephala spp. bakeri</i>
Bank swallow	<i>Riparia riparia</i>
Burrowing owl	<i>Athene cunicularia</i>
Least Bell's vireo	<i>Vireo bellii pusillus</i>
Osprey	<i>Pandion haliaetus</i>
Swainson's hawk	<i>Buteo swainsoni</i>
Tri colored blackbird	<i>Agelaius tricolor</i>
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>
Yellow warbler	<i>Setophaga petechia</i>
Yellow-breasted chat	<i>Icteria virens</i>
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>
Southern steelhead trout	<i>Oncorhynchus mykiss irideus</i>
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>
pallid bat	<i>Antrozous pallidus</i>

Townsend big-eared bat	<i>Corynorhinus townsendii</i>
Western mastiff bat	<i>Eumops perotis californicus</i>
Western red bat	<i>Lasiurus blossevillii</i>
Western pond turtle	<i>Emys marmorata</i>

## **Amphibians**

### ***Foothill yellow-legged frog (Rana boylei)***

The foothill yellow-legged frog is a CDFW species of special concern and is present in low gradient cobble and gravel streams in open sunlight. This species inhabits rocky streams and is highly aquatic, seldom venturing more than a few meters from the stream channel. Low-gradient stream reaches are preferred for breeding. The project area does not contain suitable habitat for the foothill yellow-legged frog. Long Gulch is approximately 400 feet away at its closest point and dries up annually. No impact to *Rana boylei* is expected.

### ***Western Spadefoot (Spea hammondi)***

The western spadefoot toad is a CDFW species of special concern and is one of three species native to California. Six occurrences have been recorded within 2.7 miles of the project site according to the California Department of Fish and Wildlife's database. Adult western spadefoot toads will forage on a variety of insects, worms, and other invertebrates, including grasshoppers, true bugs, moths, ground beetles, predaceous diving beetles, ladybird beetles, click beetles, flies, ants and earthworms. The Western spadefoot toads breed from January to May in temporary pools with water temperatures between 48° F and 86° F. This species is typically found in true grassland that contains riparian areas. The project area does not contain any suitable habitat for the western spadefoot as riparian habitat is not present. No impact to *Spea hammondi* is expected.

## **Birds**

### ***Bald Eagle (Haliaeetus leucocephala spp. Bakeri)***

The bald eagle is a California endangered species and on the federally protected list. The bald eagle is a bird of prey found near large bodies of open water with an abundant food supply and old-growth trees for nesting. The bald eagle is an opportunistic feeder which subsists mainly on fish, which it swoops down and snatches from the water with its talons. It builds the largest nest of any North American bird. The bald eagle occurs during its breeding season in virtually any kind of American wetland habitat such as seacoasts, rivers, large lakes or marshes or other large bodies of open water with an abundance of fish. The bald eagle typically requires old-growth and mature stands of coniferous or hardwood trees for perching, roosting, and nesting. The required habitat elements for this species do not occur within or adjacent to the project area. No impact to *H. leucocephalus* is expected.

### ***Bank Swallow (Riparia riparia)***

The Bank Swallow's state status is threatened. The bank swallow (AKA sand martin) is a colony nester, primarily in riparian and other lowlands. A dozen to many hundred pairs will



nest close together, when there is available space. The nests are created at the end of tunnels in sand or gravel and can span from a few inches to three or four feet in length. They require vertical banks/cliffs with fine textured sandy soils near streams or rivers. No suitable habitat is present within the project area. No impact to *R. riparia* is expected.

***Burrowing Owl (Athene cunicularia)***

The burrowing owl is a CDFW species of special concern. They are found in open dry grassland and mima mounds associated with vernal pools. They are a subterranean nester, that use the burrows of other mammals or other artificial burrows. They feed on small mammals, birds, and insects. The project area does not contain suitable habitat and no ground burrows were observed in the project area. No negative impact to *A. cunicularia* is expected.

***Least Bell's Vireo (Vireo bellii pusillus)***

The federal and state status lists the least Bell's vireo as endangered. It is a summer resident that nests in low, dense riparian vegetation consisting of willow, mulefat, mugwort, with a dense, higher canopy consisting of cottonwood and other trees. Potential suitable habitat may be found within the biological assessment area. Thin strips of seasonally wet upland riparian habitat are present adjacent to Long Gulch, however, they are likely unsuitable habitat for this species. There is no riparian habitat within the project area and none will be effected as a result of the project. No impact to *V. bellii pusillus* is expected and it has not been observed in the Sacramento Valley in several years.

***Osprey (Pandion haliaetus)***

The osprey is on the state's watch list. Ospreys are large birds of prey, with a wingspan ranging from 145 to 170 cm. They require large bodies of water (large ponds, lakes, or rivers) for foraging. Their diet consists predominately on fish, including the listed Chinook salmon. Generally, not present within, or adjacent to the project area, and no suitable habitat lies within, or adjacent to the project area. No impact to *P. haliaetus* is expected.

***Swainson's hawk (Buteo swainsoni)***

The state status is listed as threatened. The Swainson's hawk breeds in riparian areas and sometimes blue oak savanna near grassland or agriculture. They require adjacent suitable foraging areas such as grassland, alfalfa or grainfields supporting rodents. They breed from late March to mid-August with the peak from late May to late July. A nest was found near the area's Interstate 5 off-ramp. Although there is no riparian habitat within the project area, there is potential habitat present adjacent to the project area where a few trees are present. There are no known nests in the project area. No impact to *B. swainsoni* is expected.

***Tri-colored blackbird (Agelaius tricolor)***

This species is currently a candidate species for state listing as endangered and is a CDFW species of special concern. Highly colonial species and most numerous in the Central Valley and vicinity. They are largely endemic to California and. nests in large colonies. Habitat requirements include open water, protected nesting substrate, and foraging area with insect

prey within a few km of the colony. Although typically associated with wetland areas, tricolored blackbirds have been observed foraging on Vina Plains and within headquarters at Dye Creek Preserve (32 miles southeast) during the spring. There is no suitable nesting habitat within the project area. No impact to *A. tricolor* is expected.

***Western yellow billed cuckoo (Coccyzus americanus occidentalis)***

The federal status for the yellow-billed cuckoo is threatened and the state status is endangered. The yellow-billed cuckoo is a slim, long-tailed bird about 30 cm. in length. Its bill is yellow on the bottom and black on top, with a grey head and back with white underparts. They are riparian forest nesters using broad lower flood bottoms of large river systems and riparian thickets of willow mixed with cottonwood, blackberry and wild grape. Suitable habitat is not found in, or adjacent to, the project area. Thin strips of seasonally wet upland riparian habitat are present adjacent to Long Gulch, but they are unsuitable breeding habitat. Remaining breeding populations of this species within the Central Valley are restricted to the dense riparian along the Sacramento River. Riparian habitat will not be affected as part of this project, and no impact to *C. americanus occidentalis* is expected.

***Yellow warbler (Setophaga petechia)***

The yellow warbler is a CDFW species of special concern. Found in riparian areas, preferring willow, cottonwoods, sycamores and alders for nesting and foraging. They nest in low shrubs, usually riparian, but occasionally in open moist forests. No riparian habitat is present within the project area although thin strips of seasonally wet upland riparian habitat are present adjacent to Long Gulch Creek. The Long Gulch Creek is outside of the project footprint and no impact to *S. petechia* is expected.

***Yellow breasted chat (Icteria virens)***

The yellow breasted chat is a CDFW species of special concern. Nesting yellow-breasted chats occupy early successional riparian habitats with a well-developed shrub layer and an open canopy. The vegetation structure, rather than age appears to be the important factor in nest-site selection. Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers and seldom forms extensive tracts. The nesting habitat consists of blackberry, wild grape, willow, and other plants that form dense thickets and tangles. The project area is adjacent to Long Gulch which could contain habitat for *I. virens* however, there is no suitable habitat within the project area. No riparian vegetation will be impacted by this project. No impact to *I. virens* is expected.

**Crustations**

***Vernal pool fairy shrimp (Branchinecta lynchi)***

The federal status for the vernal pool fairy shrimp is threatened. This species of freshwater crustacean is endemic to Oregon and California, living in vernal pools. Vernal pool fairy shrimp have a lifetime of about two months and is underground as (cysts) for the summer. They are usually born around early January, and die around early March. There are no vernal pools

within or adjacent to the project area, therefore there is no habit not found in the project area. No impact to *B. lynchi* is expected.

***Vernal pool tadpole shrimp (Lepidurus packardii)***

The federal status for the vernal pool tadpole shrimp is endangered. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid waters. They also may be found in stock ponds created by damming drainages for natural vernal pools and in roadside ditches. There are no vernal pools, stock ponds or road side ditches within or adjacent to the project area, therefore there is no habit not found in the project area. No impact to *L. packardii* is expected.

**Fish**

***Steelhead central valley DPS (Oncorhynchus mykiss irideus)***

These fish are federally listed as threatened (distinct population segment which includes all naturally spawned populations of steelhead in the Sacramento and San Joaquin Rivers and their tributaries). Steelhead is a name used for anadromous rainbow trout, a salmonid species native to western North America and the Pacific coast of Asia. Adult migration from the ocean to spawning grounds occurs during much of the year, with peak migration occurring in the fall or early winter. Migration through the Sacramento River mainstem begins in July, peaks at the end of September, and continues through February or March. Central Valley steelhead are mostly "winter steelhead" and may contain some "summer steelhead." Winter steelhead mature in the ocean and arrive on the spawning grounds nearly ready to spawn. Central Valley steelhead spawn primarily in upper stream reaches and smaller tributaries. No riparian habitat is present within the project area. No impact to *O. mykiss irideus* would occur.

**Insects**

***Valley elderberry longhorn beetle (Desmocerus californicus dimorphus)***

Federal status for the valley elderberry longhorn beetle is threatened. This insect is found intimately associated with elderberry (*Sambucus*) trees and shrubs as it spends its larval stage within the canes of this woody species. Presence of the beetles is usually determined by discovery of quarter-inch exit holes in the canes or stems of plants although the lack of observable exit holes does not preclude the presence of longhorn beetles. Elderberries are rarely found in dense patches, more typically as a few plants or single specimen within a variety of habitat types including riparian scrub and oak woodland. No elderberry plants have been observed within any portion of the project area. Elderberry plants are easily recognized and avoided. No impact to *D. californicus dimorphus* is expected.

**Mammals**

***Pallid bat (Antrozous pallidous)***

The pallid bat is a CDFW species of special concern. This bat commonly occurs at a wide variety of low elevation habitats including grasslands, woodlands, mixed conifer forests, and shrub lands. They prefer dry, open places, with rocky areas to provide roosting locations. The pallid bat roosts in caves, hollowed trees, structures, or mine shafts. Habitat does not exist within the project area. Habitat may exist within the biological assessment area in the surrounding area in the form of old structures, hollow trees, bark fissures or other small cavities suitable for bats, either natural or manmade. No impact to *A. pallidus* is expected.

***Townsend big-eared bat (Corynorhinus townsendii)***

This species is currently a candidate species for state listing as endangered and is a CDFW species of special concern. This species of bat is known to utilize cave environments as well as old buildings and potentially large cavities in trees for roosting and maternity roosts. Habitat does not exist within the project area, however, it may exist within the biological assessment area in the form of old structures, hollow trees, or other cavities suitable for bats, either natural or manmade. CAL FIRE staff has examined the trees that are identified for removal and no potential roosting habitat was observed. No impact to *C. townsendii* is expected.

***Western mastiff bat (Eumops perotis californicus)***

This species is a CDFW species of special concern. This is the largest bat species in California with a wingspan of 53 to 56 cm and is most frequently encountered in broad open areas. Generally, this bat is found in a variety of habitats, from dry desert washes, flood plains, chaparral, grassland, meadows, agricultural areas, oak woodland, and open ponderosa pine forest. This bat is primarily a cliff-dwelling species, roosting under exfoliating rock slabs or within columnar basalt. The roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 m. below the entrance for initiating flight. No suitable habitats are within, or adjacent to the project area. Although the project may contain foraging habitat for this species, it is a nocturnal forager and would not be impacted by the project. No impact to *E. perotis californicus* is expected.

***Western red bat (Lasiurus blossevillii)***

This species is a CDFW species of special concern. The Western red bat is medium sized, with red or reddish-brown fur and frequents broad-leaved woodlands, usually in riparian areas at mid-elevations. They typically roost singly in the foliage of broad-leaved trees such as sycamores, cottonwoods, walnuts, and fruit orchards, sometimes in leafy shrubs or herbs. The roosts are shaded from above and on the sides, generally three to many feet off the ground. There may be suitable habitat within the biological assessment area. However, no suitable habitats are within, or adjacent to the project area. No impact to *L. blossevillii* is expected.

**Reptiles**

***Western pond turtle (Emys marmorata)***

This turtle is listed as a CDFW species of special concern. The turtle's habitat is thoroughly aquatic, found in ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. In streams, they avoid fast-moving and shallow water, and tend to be concentrated in pools and backwater areas. Western pond turtles need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg laying. Pond turtles are uncommon in heavily shaded areas. The nesting season extends from April through August and their nests may be excavated more than a quarter mile from water in exposed (unshaded) upland locations. No suitable habitat is within or adjacent to the project area. No impact to *E. marmorata* is expected.

## SPECIAL-STATUS PLANTS

The following special-status plants were identified in the CNDDDB as occurring within the nine-quadrangle biological assessment area of the project site. The special-status special status plants are provided in **Table 2**.

**Table 4. Special-Status Plant Species Within Nine Quadrangle Biological Assessment Area of the Project Site.**

Species Common Name	Species Scientific Name
Adobe-lily	<i>Fritillaria pluriflora</i>
Ahart's dwarf rush	<i>Juncus leiospermus</i> var. <i>aharti</i>
Ahart's paronychia	<i>Paronychia aharti</i>
Baker's navarretia	<i>Navarretia leucocephala</i> spp. <i>bakeri</i>
Big-scale balsamroot	<i>Balsamorhiza macrolepis</i>
Boggs Lake hedge-hyssop	<i>Gratiola heterosepala</i>
Dwarf downingia	<i>Downingia pusilla</i>
legenere	<i>Leegenere limosa</i>
Pink creamsacs	<i>Castilleja rubicundula</i> var. <i>rubicundula</i>
Red Bluff dwarf rush	<i>Juncus leiospermus</i> var. <i>leiospermus</i>
Sanford's arrowhead	<i>Sagittaria sanfordii</i>
Silky cryptantha	<i>Cryptantha crinita</i>
Slender Orcutt grass	<i>Orcuttia tenuis</i>

### **Adobe-lily (*Fritillaria pluriflora*)**

The Adobe-lily is listed on the CNPS Rare Plant Rank as 1B.2 (rare, threatened or endangered in CA and elsewhere). It is a perennial herb that is native to California and is a chaparral foothill grassland bulb species usually located on clay soils. *F. pluriflora* produces an erect stem reaching heights between ten and fifty centimeters. It has up to ten thick, long, oval-shaped leaves with wavy margins, most of which are clustered at ground level. The nodding flower has bright pink petals, each one to four centimeters long. At the center of the flower is a pinkish to yellowish nectary and bright yellow anthers. Not expected within the project area as heavy clay soils are not present. No impact to *F. pluriflora* is expected.

### **Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*)**

The CNPS Rare Plant Rank for this species is 1B.2 (rare, threatened or endangered in CA and elsewhere). It is an annual grass like herb, that flowers in April and May. Native to California it is found at edges of vernal pools, on clay soils. No impact to *J. leiospermus* var. *ahartii* is expected.

**Ahart's paronychia (*Paronychia ahartii*)**

Ahart's paronychia's CNPS Rare Plant Rank is 1B.1 (rare, threatened or endangered in CA and elsewhere). It's an annual herb native to California and endemic to the State. The species is a small almost inconspicuous annual 3/16-1/2-inch tall herb that is found on rocky, sterile, clay-rich terrace soils growing on the stoniest microsites within its habitat where the density of competing annual plants is low. This species blooms from March to June and is found in cismontane woodland, valley and foothill grassland, vernal pool, and wetland habitats. Suitable habitat may be present in the surrounding oak woodland except that clay soils are not available. Suitable habitat is not present in project area. No impact to *P. ahartii* would occur.

**Baker's navarretia (*Navarretia leucocephala* spp. *bakeri*)**

This species CNPS Rare Plant Rank is 1B.1 (rare, threatened or endangered in CA and elsewhere). It's an annual herb that is native and endemic to California. This species is found in cismontane woodland, meadows and seeps, vernal pools, valley and foothill grassland, lower montane coniferous forest vernal pools and swales on adobe or alkaline soils. Habitat is not present in the project area. No impact to *N. leucocephala* spp *bakeri* would occur.

**Big-scale balsamroot (*Balsamorhiza macrolepis*)**

The Big-scale balsamroot's CNPS Rare Plant Rank is 1B.2 (rare, threatened or endangered in CA and elsewhere). A perennial herb in the sunflower family that grows to 20-60 cm tall and is native to California (found outside California but is confined to western North America). The species has yellow 2-3 cm flowers that bloom from March to June and is found within grasslands, foothill woodlands, and in various land cover types such as purple needle grass grassland, serpentine bunchgrass grassland, mixed serpentine chaparral, mixed oak woodland and forest, ponderosa pine forest and woodland, between 150 and 4,500 feet in elevation. The species has a strong affinity to serpentine soils. The CNDDB database has one recorded occurrence 2.4 miles from the project area. Suitable habitat is unlikely to occur within the project footprint. No impact to *B. macrolepis macrolepis* is expected.

**Boggs Lake hedge-hyssop (*Gratiola heterosepala*)**

The CNPS Rare Plant Rank for this species is 1B.2 (rare, threatened or endangered in CA and elsewhere). It is listed by the State of California as "Endangered." The species is an annual herb and native to California that is found in shallow water or in wet mud at the margins of lakes and vernal pools. In California, it is found at elevations between 5 and 2,400 m. and occurs as scattered individuals in shallow waters or on low-slope mudflats of vernal pools, ponds and lake margins. Some occurrences have been found on recent man-made wetlands. Some light disturbance, like moderate grazing, may be beneficial by aiding in seed burial and dispersal. The plant blooms anywhere between April and August depending on weather and elevation. The bloom at any given occurrence may last a month as the water recedes and exposes more habitat. Species typically self-pollinates as it has very small flowers poorly



suited to attracting insects. No habitat is present within the project area. No impact to *G. heterosepala* would occur.

**Dwarf downingia (*Downingia pusilla*)**

This species CNPS Rare Plant Rank is 2B.2 (rare, threatened or endangered in CA and elsewhere). The plant is a tiny flowering annual plant in the bellflower family that is native to California and found elsewhere in both North and South America. It grows in wet areas such as ditches and vernal pools. This annual is different from the other downingias in that its flowers are much smaller, reaching 4 millimeters in width at maximum. It grows erect stems with few pointed leaves and is a white or blue tubular flower, with yellow spots near the mouth of the tube. This species is found in valley and foothill grassland (mesic sites) and along vernal pool margins. Threats include sheep grazing and mechanical disturbance. Vernal pools and wet areas are not present in the project area. No impact to *D. pusilla* would occur.

**Legenere (*Leegenere limosa*)**

The CNPS Rare Plant Rank for this species is 1B.1 (rare, threatened or endangered in CA and elsewhere). This plant is an annual herb native to and endemic to California that blooms from April to June and is associated with vernal pools. This habitat type is not present in the project area, so this species is unlikely to be present. No impact to *L. limosa* would occur.

**Pink creamsacs (*Castilleja rubicundula* var. *rubicundula*)**

The CNPS Rare Plant Rank for this species is 1B.2 (rare, threatened or endangered in Ca. and elsewhere). The species is an annual herb native to California and is endemic to California and blooms from April to June. This species of plant is found within chaparral, cismontane, woodland, meadows and seeps, valley and foothill grassland on serpentine. No known occurrences in Tehama Co. No impact to *C. rubicundula* var. *rubicundula* would occur.

**Red Bluff dwarf rush (*Juncus leiospermus* var. *leiospermus*)**

The CNPS Rare Plant Rank for Red Bluff dwarf rush is 1B.1 (rare, threatened or endangered in Ca. and elsewhere). The plant is an annual, that flowers in March to May and is found in chaparral, valley and foothill grassland, cismontane woodland and in vernal pools. The species is found on clay soils and vernal mesic microsites, but is uncommon at the edges of vernal pools and swales. Commonly found on basalt, in the northern Sacramento Valley and adjacent foothills. Endemic to California, this species is known from thirty-two occurrences comprising at least 30,000 individuals. The taxon occurs in Butte, Shasta, and Tehama Counties and is threatened by development, grazing, off-road vehicle activity, road construction, and land conversion to agriculture. Clay soils and vernal habitat are not present in the project area. No impact to *J. leiospermus leiospermus* would occur.

**Sanford's arrowhead (*Sagittaria sanfordii*)**

The CNPS Rare Plant Rank for this species is 1B.2 (rare, threatened or endangered in Ca. and elsewhere). A perennial herb (rhizomatous, emergent) native and endemic to California that blooms from May to October. Habitats include marshes and swamps, in standing or slow

moving water, ponds, marshes and ditches and colonizes disturbed areas. No suitable habitat is present, within the project area. No impact to *S. sanfordii* would occur.

#### **Silky cryptantha (*Cryptantha crinita*)**

The CNPS Rare Plant Rank for the silky cryptantha is 1B.2 (rare, threatened or endangered in Ca. and elsewhere). It's an annual herb native and endemic to California that is 4-16 inches tall with coarse hairs throughout and flowering stems shaped like fiddle necks. Found in sand and gravel deposits associated with seasonal and less frequently perennial steams and blooms from April to May. No suitable habitat is within the project area but suitable habitat is present within the biological assessment area. No impact to *C. crinita* is expected.

#### **Slender Orcutt grass (*Orcuttia tenuis*)**

The CNPS Rare Plant Ranking for this plant is 1B.1 (rare, threatened or endangered in Ca. and elsewhere). It is listed by the State of California as "Endangered" and by the federal government as "Threatened." It's an annual herb, native and endemic to California that is found locally on the bed of shallow vernal ponds in oak woodland or grassland. Sometimes can be found in pond beds strewn with basaltic stones. Can also be found in artificial vernal pools and impoundments. This species blooms from May to September and is more commonly found in vernal pools which have a minor component of flashy annual (exotic) grasses. No suitable habitat within the project area. No impact to *O. tenuis* would occur.

### **Discussion**

a) Would the project 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 the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project will remove approximately ten oaks. Surveys for nesting trees will be conducted prior to removal. All the trees are located along the margins of the project site.

Tree removal could have an impact on birds that use the trees during nesting season (February 1 through August 31). All native birds, including raptors, are protected under the California Fish and Wildlife Code and the Federal Migratory Bird Treaty Act (MBTA). The following mitigation measure will be implemented to avoid a significant impact to native birds that may use the trees to nest. **Mitigation BIO-1** below shall be implemented to ensure impacts are less than significant.

The proposed project site is located approximately 400 feet east of Long Gulch. The slope between the project site and Long Gulch is well vegetated and provides the filter stripe needed

to ensure sediment and or runoff is not transported down slope from the project site to the gulch. Occurrences identified in the CNDDDB near the project area and further downstream include western spadefoot, (*Spea hammondi*) and steelhead Central Valley DPS, (*Oncorhynchus mykiss irideus*).

The proposed project is subject to the Construction Storm Water Program pursuant to California State Water Resources Control Board. Potential water quality impacts are present during demolition and grading and post project due to the increase in non-permeable surfaces and pollutants. Demolition activities would create debris and pollutants that could affect water quality and construction activities will disturb soils that can cause sedimentation during storm events. Steelhead trout are especially sensitive to sedimentation. Additionally, the increase in impervious surfaces from the completed project could create additional runoff that could impact the watershed.

CAL FIRE will need to obtain a Construction General Permit from the Central Valley Regional Water Quality Control Board (National Pollutant Discharge Elimination System) as part of the Project. With implementation of best management practices and permit requirements to minimize contact with potential stormwater pollutants and decrease erosion, potential significant impacts to special status aquatic species would be reduced to a less than significant level (see **Section IX Hydrology and Water Quality**).

#### **Mitigation Measure BIO-1 Pre-Construction Nesting Survey**

1. Conduct a pre-construction nesting bird survey of all suitable habitat on the project site within 7 days prior to the commencement of construction during the nesting season (February 1 through August 31). Pre-construction nesting surveys are not required for construction activity outside of the nesting season (September 1 through January 31).

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 (or forester) in accordance with buffer distances relative to the species identified). If a nesting species is determined to be CESA or ESA listed, CDFW will be contacted to initiate a species consultation. Consultation will result in appropriate mitigation measures that will be applied to prevent disruption of essential behavior patterns (breeding).

Once construction activities commence on-site, all nests will be continuously monitored by a qualified biologist (or forester) to detect any behavior changes as a result of construction of the proposed project. If behavioral changes are observed that may result in adverse effects to the success of breeding, the work causing the change shall cease and consultation with CDFW shall be initiated to identify potential avoidance and minimization measures that will prevent the disruption of essential behavioral patterns (breeding).

The buffer shall be maintained and no ground-disturbing or construction activities can occur until the fledglings are capable of flight and become independent of the nest tree, to be determined by a qualified biologist (or forester). Once the young are independent of the nest, no further measures are necessary and construction may commence.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is not located within a riparian area or other sensitive natural community. Chapter 5 and Chapter 6 of Tehama County's General Plan defines sensitive habitats as:

Sensitive habitats in Tehama County include serpentine soils, rock outcrops, wetlands, lakes, rivers, vernal pools, and old growth forests. These habitats are likely to harbor special-status plant and animal species, or provide the potential for these species.

Riparian Habitats are defined as:

Support numerous plant, fish, and wildlife species and are considered to be a sensitive resource. Riparian vegetation provides shade, bank stabilization, sediment control, organic litter, large woody debris, nutrient control, microclimate and wildlife habitat. Riparian zones also act as a flood buffer during high water events. All of these are required for a healthy, functioning ecosystem.

The general plan provides for the protection of sensitive habitats through implementation of several policies such as:

1. Policy ED-7.1 The county shall continue to preserve Tehama County's natural resources including: agriculture, timberlands, water and water quality, wildlife resources, minerals, natural resource lands, recreation lands, scenic highways, and historic and archaeological resources. The protection of natural resources is of the utmost importance and promoting business expansion, retention, and recruitment should complement and enhance the natural resources while reducing negative impacts.
2. Policy OS-3.1 The county shall preserve and protect environmentally-sensitive and significant lands and water valuable for their plant and wildlife habitat, natural appearance, and character.
3. Policy OS-3.2 The county shall protect areas identified by the California Department of Fish and Game and the California Natural Diversity Data Base as critical riparian zones
4. The county shall support and coordinate County plans with inter-jurisdictional programs for Best Management Practices of riparian resources in the county.
5. The county shall promote best management practices of natural resources that will enhance wildlife habitat.

The project site is not in conflict with the general plan policy requirements. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in the environmental setting section, no potential Waters of the U.S., riparian habitat, or other sensitive natural communities were found on the project site. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

There are no wildlife corridors on or near the project site. Although not a wildlife corridor, deer have been observed on the property. The surrounding landscapes provide ample opportunity for deer movement. Additionally, all native birds, including raptors are protected under the MTBA and the California Fish and Game Code. Implementation of **Mitigation Measure BIO-1**, a pre-construction nesting survey, will avoid any potentially significant impacts for birds using the project site as nesting habitat. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project will remove approximately 10 trees from the project site. Tree removal is necessary to accommodate the new upgraded facilities. Tehama County Board of Supervisors adopted a Voluntary Oak Woodland Management Plan in 2005. The purpose of this document was to expand upon, refine, and improve voluntary oak protection guidelines that had been established by the county in 1994, and to provide a consistent policy for conservation and use of oak woodland habitats throughout the county. The project site is five acres with less than 10 trees being removed, and as such it does not fit into the policies developed within the general plan that constitute substantial oak woodland removal.



The project site is not located in a rural or urban service line, is not visible from a scenic road, and is not within a designated scenic resource area or located in a sensitive habitat. The proposed project would not conflict with Tehama County ordinances or policies.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an area subject to any adopted habitat conservation plan, natural community conservation plan or other local, regional, or state habitat conservation plan. No impact would occur.

## CULTURAL RESOURCES

### Environmental Setting

An Archaeological Survey and Historic Building Evaluation report was prepared for the proposed project (April 2018). The principal objective of historical resources assessment of the Baker FS structures was to ascertain whether any of the identified structures that occur on the site were historically significant, and to locate and record these resources, assess their potential significance in terms of their eligibility for listing on the *National Register of Historic Places* and/or the *California Register of Historical Resources*, and to offer pertinent management recommendations concerning their retention or demolition.

The principal types of historical resources likely to be discovered in the project region include prehistoric and historical archaeological sites, features and artifacts. Prehistoric archaeological sites manifest evidence of human activity, usually disclosed by the presence, in surface or subsurface contexts, of features, artifacts and ecofacts, often but not invariably occurring on, or in, humanly affected sediment (anthropic deposits).

Prehistoric archaeological sites often contain animal bone, shell, charcoal and other refuse, as well as flaked, polished, and ground stone tools, potsherds, and culinary stones (or their counterpart, baked clay objects), as well as burials (inhumations). Prehistoric archaeological remains include but are not limited to isolated or associated artifacts, such as projectile points, knives, scrapers, awls, hammerstones, lithic debitage, beads, milling implements, potsherds, and culinary stones or baked clay objects; evidence of structural features; e.g., housepits, ceremonial lodges, sweathouses, fish traps, bedrock milling stations, hunting sites, rock art, quarries, trails and isolates; and subsurface remains, including inhumations, caches of artifacts, or buried features.

Archaeological and historical sites can be given a measure of protection if they are eligible for nomination to the **National Register of Historic Places** (36 CFR 600.4 and 36 CFR 800). The National Register criteria and other information issued by the Advisory Council on Historic Preservation, present the legal measures of significance relevant to historical resources. The National Register of Historic Places (NRHP) criteria are the following:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association; and

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack distinction; or
- D. that have yielded, or may be likely to yield, information important to prehistory or history [36 CFR 60.4 (a-d)].

Additionally, on September 27, 1992, Assembly Bill (AB) 2881 (Statutes of 1992, Chapter 1075) was signed into law amending the Public Resources Code as it affects historical resources (State of California Office of Historic Preservation 1998; State of California Public Resources Code 1992). This legislation, which became effective on January 1, 1993, also created the **California Register of Historical Resources** (CRHR).

An historical resource must be significant at the local, state or national level under one or more of the following four criteria:

- A. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- B. It is associated with the lives of persons important to local, California or national history;
- C. It embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possesses high artistic values;
- D. It has yielded or has the potential to yield information important to the prehistory or history of the local area, California or the nation.

All resources nominated for listing on the *California Register of Historic Resources* must demonstrate integrity, which is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance (Hardesty and Little 2000). Resources must retain sufficient historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling and association. It must also be judged with reference to the

particular criteria under which a resource is proposed for eligibility. Alterations over time to a resource or historic changes in its use or function may themselves have historical, cultural, or architectural significance.

It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but may yet be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still retain sufficient integrity to qualify for the California Register if the resource maintains the potential to yield significant scientific or historical information.

**California Department of Forestry and Fire Protection *Management Plan for CDF's Historic Buildings and Archaeological Sites*:** Thornton (1994a:552-555) presented a rating system for determining the significance of historic buildings. The system is based on eleven criteria invested with a point scoring system, by means of which historic structures can be evaluated. Informally it is known as the *Eleven Point Rating System*. Thornton (1994a:549) states, "The ultimate measure of a building's historic significance is its relationship to the *National Register of Historic Places*." The NRHP Status Code was entered in the "Status Code" field in the header of each Primary Record when the evaluation of the historic resource was completed.

Direct field inspection of the Baker Fire Station compound and structures that required evaluation was conducted on April 4, 2018. An archaeological Records Check for the Baker Fire station project was performed at the Northeast Center of the California Historical Resources Information System (CHRIS) office in Chico. The records check was performed in an effort to learn about the presence of any known prehistoric and/or historic archaeological sites and to determine whether any previous archaeological survey work had taken place in the study area.

Archaeological survey of the Baker FS compound was accomplished by inspection of exposed ground surfaces. This procedure was conducted by CAL FIRE archaeologist Richard Jenkins.

### **Paleontological Resources**

Paleontological resources include the remains and/or traces of prehistoric life (exclusive of human remains, artifacts or features), including the localities where fossils were collected and the sedimentary rock formations in which they were formed. The defining character of fossils is their geologic age. Fossils or fossil deposits are generally regarded as being older than 10,000 years, marking the end of the late Pleistocene and the beginning of the Holocene. A unique paleontological resource is any fossil or assemblage of fossils, paleontological resource site, or formation that meets any one of the following criteria:

- Is the best example of its kind locally or regionally,
- Illustrates a life-based geologic principle (e.g., faunal succession),

- Provides a critical piece of paleobiological data (illustrates a portion of geologic history or provides evolutionary, paleoclimatic, paleoecological, paleoenvironmental or biochronological data),
- Encompasses any part of a "type locality" of a fossil or formation,
- Contains a unique or particularly unusual assemblage of fossils,
- Occupies a unique position stratigraphically within a formation, and
- Occupies a unique position, proximally, distally or laterally within a formation's extent or distribution

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The only documented site identified within the proposed project area are the buildings that comprise the Baker Fire Station complex. They are considered historic resources due to their 1948 construction date and makes them more than 50 years of age. Buildings that comprise the compound include a combination barracks that began life as military surplus building erected in 1948, a combination office and two-bay garage built in 1953, a gas and oil house constructed in 1954, a well house also constructed in 1954, a two-bay apparatus building constructed in 1978, and a wood frame cross wing addition to the combination barracks added in 1991-92.

Also present on the compound is a "yard art" area within the landscaping that displays a few historic farm implements donated by station personnel. These items include New Deal brand horse-drawn mower, what appears to be a corn sheller, and a few miscellaneous artifacts. Also present are two wagon wheels incorporated into the front entrance to the station. None are related to the history of the parcel and they are present there for decorative purposes only.

No prehistoric or historic artifacts, features, or sites were discovered during the project survey of the undeveloped portion of the original parcel or anywhere on the new parcel to the north. While not artifacts several locally-occurring fist-sized chert cobbles were noted to be present as part of the soil matrix in the northern parcel. Chert, called flint in the mid-west, was one of the stone types used by Native Americans across the United States for the production of chipped stone tools. A review of the 1984 Cottonwood Creek survey report showed that scatters of chert flakes were the most common type of prehistoric site discovered during that project.

During the inspection, an active erosional scarp was observed to be present along the western original parcel boundary. The scarp is currently moving east and upslope from Middle Fork Cottonwood Creek and has recently crossed onto the fire station compound. Plastic sheeting currently covers the 50-foot-wide scarp and sandbags are placed at its head to slow continued movement east. If left unchecked several of the existing structures will be threatened

The significance of the Baker Fire Station was evaluated by Historian Mark Thornton in 1994 during preparation of his 2-volume report titled "A Survey and Historic Significance Evaluation of the CDF Building Inventory." Page 129 of the December 1994 report is a Primary Record for Baker Fire Station where he assigned National Register of Historic Places (NHRP) Status Code "6Z", meaning that the station was found ineligible for listing on the National Register of Historic Places, the California Register of Historic Resources, or any local historic registers. The Primary Record and a CDF Building Rating Sheet on Page 614 both discuss why the station was considered ineligible for listing on any of the various historic registers. The fire station was examined during a 4/4/18 field inspection, was found to be in poorer condition (concrete sidewalks and curbs failing), than indicated in the 1994 site recording, and it still appears as originally assessed and continues to likely be ineligible for listing on the National Register of Historic Places. None of the historic farm implements displayed in the landscaping near the station entrance are considered significant historic resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The project area is thought to have been part of the territory of the Wintu, a Penutian-speaking group that is thought to have migrated south into the Sacramento Valley from the northwest some 1500 years ago. They employed a hunter-gatherer-based subsistence economy and their primary occupation sites were situated on flat ground adjacent to reliable sources of fresh water. During the historic period the general area was homesteaded in the mid-1800s and used for sheep and later cattle grazing. The Records Check revealed that the project had been previously surveyed by CSU Sacramento in 1984 and that no prehistoric or historic archaeological sites were discovered. A 1994 survey by Historian Mark Thornton resulted in the recordation of the 1948 fire station complex as a historic site.

Letters were sent to the appropriate California Native American tribes pursuant to the list provided by the Native American Heritage Commission for the project area.

No archaeological resources were discovered at the Baker FS during investigations by CAL FIRE's contract archaeologist. However, the following shall be implemented to ensure that impacts to unknown resources are less than significant.

**Mitigation Measure CR-1 Accidental Discovery:**



In the event of discovery of cultural or paleontological resources, work shall cease in that area while the CAL FIRE archeologist and tribal representative evaluate said find. Construction work may continue in other areas of the project, as determined by the CAL FIRE archeologist, until the discovery is examined and evaluated. Unanticipated discoveries of cultural resources shall include: (1) appropriate documentation (site record(s)) and (2) re-burying on site in a location where the cultural resources will not be disturbed in the future. Paleontological resources shall be treated as prescribed by the CAL FIRE archeologist. The CAL FIRE archeologist shall notify the project director when work can continue in the area of the discovery.

**Mitigation Measure CR-2 Human Remains:**

In the event of discovery of human remains, whether intact, fragmentary, or displaced from their original context, the County Coroner and the Native American Heritage Commission, West Sacramento (916-653-4082), shall be notified of the discovery immediately, and all work in the vicinity of the find shall cease, as determined by the CAL FIRE archeologist, and there shall be no further excavation or disturbance of the find site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of that county in which the remains are discovered has determined whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. Public Resources Code Section §5097.98 specify the procedures to be followed in the event of discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the Native American Heritage Commission. Upon request, the Native American Heritage Commission will provide the project director with a list of most likely descendants, who will specify treatment and disposition of any Native American remains found within the area of potential effect of the project. Final disposition of the human remains is subject to approval of the landowner. Human remains and associated grave goods are protected under Public Resources Code § 5097.94 and Health and Safety Code § 7050.5.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

According to Tehama's County General Plan only a few paleontological resources have been found throughout the unincorporated regions of Tehama County. These include a mastodon jaw bone fossil found near the Red Bank Creek in the central portion of the county, a mastodon leg bone found along Mill Creek also in the central portion of the county, and a bone fragment from an ancient humpless camel found near Paskenta.

No paleontological resources are anticipated to occur on the project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The cultural resource investigations did not indicate the presence of human remains or associated grave goods within the project area. Nonetheless, unknown remains could always be uncovered during ground disturbing activities. In the event that human remains are discovered the requirements of Mitigation Measure CR-2 would be implemented. With incorporation of **Mitigation Measure CR-2** will ensure that potential impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource pursuant to 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 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

AB 52 (2014) relating to Native Americans establishes a process for consulting with Native American tribes and groups regarding these resources. Tribal cultural resources are "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe...". A tribal cultural resource must be on, or eligible for, the CRHR for historical resources, or must be included in a local register of historical resources. AB 52 indicates that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment (PRC Section 21084.2).

The bill requires a lead agency to begin consultation with a California Native American tribe traditionally and culturally affiliated with the geographic area of the proposed project and to inform the tribe, if requested, of proposed projects prior to determining what type of environmental document is required.

As part of the cultural resource investigation, the Native American Heritage Commission, Greenville Rancheria, Paskenta Band of Nomlaki Indians, Wintu Tribe of Northern California, Redding Rancheria, and the Estom Yumeka Maidu Tribe of the Enterprise Rancheria were notified. No requests for consultation were received.

No tribal cultural resources were discovered at the Baker FS during investigations by CAL FIRE's contract archaeologist, nor were any identified in the request for consultation with California Native American tribes. Mitigation measures for potential undiscovered resources during project ground disturbance have been incorporated. With incorporation of Mitigation Measure CR-1 will ensure that potential impacts would be less than significant should unknown cultural resources are uncovered.

f) Would the project 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: 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in the previous sections, the cultural resource survey and tribal contact did not identify a significant resource on or near the project site. No impacts would occur.

## ENERGY

### Environmental Setting

#### STATE

##### State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

##### Title 24, Energy Efficiency Standards

The California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) establishes energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The provisions of the California Energy Code apply to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances; they also guide construction techniques to maximize energy conservation. Minimum

efficiency standards are given for a variety of building elements, including appliances, water and space heating and cooling equipment, and insulation for doors, pipes, walls, and ceilings. The CEC adopted the 2005 changes to the Building Efficiency Standards, which emphasized saving energy during peak periods and seasons, and improving the quality of installation of energy efficiency measures.

#### **LOCAL**

Tulare County's General Plan identifies the following goals and policies.

#### **LU-7.15 Energy Conservation**

The County shall encourage the use of solar power and energy conservation building techniques in all new development.

#### **8.4 Energy Resources**

To encourage energy conservation in new and existing developments throughout the County.

#### **ERM-4.1 Energy Conservation and Efficiency Measures**

The County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State law.

#### **ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation**

The County shall promote the planting and maintenance of shade trees along streets and within parking areas of new urban development to reduce radiation heating.

#### **ERM-4.3 Local and State Programs**

The County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.

#### **ERM-4.4 Promote Energy Conservation Awareness**

The County should coordinate with local utility providers to provide public education on energy conservation programs.

#### **ERM-4.5 Advance Planning**

The County shall participate with energy providers in identifying long range energy strategies and facilities.

#### **ERM-4.6 Renewable Energy**

The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.

#### **ERM-4.7 Reduce Energy Use in County Facilities**

The County Shall continue to integrate energy efficiency and conservation into all County functions.

#### **ERM-4.8 Energy Efficiency Standards**

The County shall encourage renovations and new development to incorporate energy efficiency and conservation measures that exceed State Title 24 standards. When feasible, the County shall

offer incentives for use of energy reduction measures such as expedited permit processing, reduced fees, and technical assistance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project would replace an existing fire station that was constructed in 1948 and is not energy efficient. The construction of the new fire station would use standard construction practices that would not require an unnecessary consumption of energy resources. Additionally, the new fire station would implement energy efficient features as required by the California Energy Code (Title 24). The Building Energy Efficiency Standards are designed to ensure new and existing buildings achieve energy efficiency and preserve outdoor and indoor environmental quality. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project would not conflict or obstruct a state or local plan for renewable energy or energy efficiency. The Baker fire station was constructed in 1948 with several accessory structures built subsequently. The old structures are not energy efficient and the new structures will be constructed using new uniform building codes for energy efficiency and improving energy usage. No impact would occur.

## **GEOLOGY AND SOILS**

### **Environmental Setting**

Tehama County's General Plan indicates that the seismologic and geologic conditions within the county would likely not pose significant damage or risk due to earthquake activity. According to the Geotechnical Investigation prepared by CAL FIRE in coordination with the California Geological Survey (CGS) branch of the California Department of Conservation (May 2016), the site is located along the northwestern edge of the Great Valley geologic and geomorphic province, more commonly referred to as the Sacramento Valley. The Great Valley is composed of



a trough of sediments in the central part of California that have been deposited since the Jurassic (CGS, 2002).

The Sacramento Valley is a broad depression bounded in the site vicinity by the Cascade Range to the east and the Coast Ranges and Klamath Mountains to the west. The Sacramento Valley has been filled with a thick sequence of sediments derived from weathering of adjacent mountain ranges resulting in a stratigraphic section of Cretaceous, Tertiary, and Quaternary deposits. Based on mapping by the United States Geological Survey (*Geologic Map of the Red Bluff 30'X60' Quadrangle, California*, USGS Map I-2542, 2000), the Site is underlain by older alluvial deposits of the Pleistocene-age Riverbank Formation – Lower member. The Riverbank Formation deposits are described as weathered reddish gravel, sand, silt, and clay (Geologic Hazards Evaluation and Geotechnical Investigation, October 2018).

A slope washout (western portion of the site that leads to Big Crane Creek/Long Gulch) occurs on the western portion of the site. It is believed that the washout was likely caused by undocumented fill and a corroded drain pipe within that portion of the site. Fill was observed on the north-central side and the northeastern corner of the site during geologic reconnaissance. The fill consisted predominantly of clayey gravel and clayey sand, but also included varied proportions of debris (e.g., car body, asphalt chunks) on the north-central side of the site. On the north-central side of the site, fill is exposed in the slope failure area and in the face of the slope adjacent to the failure, and appears to be locally-derived material (e.g., from site grading) that was dumped or pushed over the edge of the native embankment. Fill consisting of clayey sand with gravel appears to have been placed on the northeastern corner of the site up to approximately 2 feet thick, likely in conjunction with grading of the field.

During the geotechnical investigation, older alluvium was found in each boring that was bored to the maximum depth of approximately 51½ feet. The older alluvium consisted predominantly of stiff to hard lean clay to sandy lean clay (CL) with varied gravel content, and medium dense to very dense clayey sand (SC) and clayey gravel (GC). Also noted was some hard silt to sandy silt with clay (ML), and poorly graded sand with silt and gravel (SP-SM), and poorly graded sand with clay (SP-SC).

The project site is not located within an Alquist-Priolo earthquake hazard. As with virtually all sites within the State of California, the project site is subject to minor ground shaking and potential secondary hazards (i.e., liquefaction and subsidence) as a result of earthquakes. The primary seismic hazard associated with the project site is minor ground shaking. Minor ground shaking can result in partial collapse of buildings and extensive damage in poorly built or sub-standard structures. The following regional faults are located near the project site.

**Table 5. Nearest Faults**

Fault Name	Approximate Distance from Site (miles)	Maximum Earthquake Magnitude, $M_w$
Battle Creek 2011 CFM	<1	6.6
Keswick Fault	27.5	6.0
Great Valley 01	42.7	6.7

## Discussion

a) Would the project expose people or structures to potential 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 California Geological Survey Special Publication 42.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Ground Rupture?

As with all of California, the site has experienced historic earthquakes from various regional faults. Based on the geotechnical review of available reports published by CGS and the United States Geological Survey (USGS), the site has not experienced reported ground failure due to past earthquakes. The site is not located within a currently designated State of California Earthquake Fault Zone (Bryant and Hart, 2007) and, based on regional geologic mapping, there does not appear to be any known active faults projecting toward or extending across the project site (Department of Conservation, California Geological Survey letter, May 2016). No impact would occur.

### **Strong seismic ground shaking?**

As with most areas within California, the site could be subject to low to moderate ground shaking in the event of an earthquake.

This is common in California and the effects of ground shaking can be addressed by proper engineering design and construction in conformance with current building code requirements and sound engineering practices. The project will be designed by registered engineers that are required to adhere to the current California Building Code standards. Additionally, the plans will need to be approved by the California Division of State Architect and the Office of State Fire Marshall. This process would ensure that the potential impacts from ground shaking would be less than significant.

### **Seismic-related ground failure, including liquefaction?**

Liquefaction is described as the sudden loss of soil shear strength due to a rapid increase in soil pore water pressures caused by cyclic loading from a seismic event. A liquefied soil acts more like a fluid than a solid when shaken during an earthquake. In order for liquefaction to occur during a seismic event, the following are needed:

- Granular soils (sand, silty sand, sandy silt, and some gravels);
- A high groundwater table; and,
- A low density in the granular soils underlying the site.

If those criteria are present and strong ground motion occurs, then those soils could liquefy, depending upon the intensity and duration of the strong ground motion. Liquefaction that produces surface effects generally occurs in the upper 50 feet of the soil column, thus, the potential for liquefaction to have an adverse effect would generally require the criteria above to persist within 50 feet below the surface.

Based on the subsurface conditions encountered at the site (Geologic Hazards Evaluation and Geotechnical Investigation, October 2018), including predominantly cohesive soils, and the anticipated seismic and groundwater conditions, liquefaction potential is expected to be low during seismic events. Mitigation and specific design measures with respect to liquefaction are not necessary.

The site is generally underlain by stiff to hard lean clay to sandy lean clay (CL) with varied gravel content, and medium dense to very dense clayey sand (SC) and clayey gravel (GC). Within the project vicinity, the anticipated depth to the perennial groundwater table is considered to be greater than 50 feet. Due to the groundwater depth, the potential for liquefaction and its associated adverse effects (e.g. settlement, lateral spreading, lurch cracking, etc.) are low.

Impacts are less than significant.

### **Landslides?**

No landslides are mapped within the site vicinity on published geologic maps (Fratlicelli, 2012) and the topography in the area of planned improvements is rolling with gentle gradient (<10%) slopes. However, the steep (>65%) slopes that flank the Long Gulch west of the site exhibit shallow landsliding (less than 5-feet depth) and erosion due to fluvial erosion undercutting the oversteepened slopes. The new Baker FS is not be located near Long Gulch and no deep-seated landsliding was observed away from this slope. Due to the gentle slopes in the area and the distance of the proposed new fire station away from Long Gulch, impacts would be less than significant.

The regional topography surrounding the site is primarily gently rolling terrain that does not exhibit obvious signs of slope instability. Along Long Gulch, northwest of the site, older alluvium of the Riverbank Formation forms natural slopes approximately 25 to 35 feet high with inclinations ranging from approximately 2H:1V (horizontal:vertical) to near-vertical. These relatively steep natural slopes appeared to be performing well, showing typical surficial raveling but not exhibiting larger-scale failures.

The existing fill slope on the west-central side of the site, approximately 40 feet west of the proposed water tank location, is approximately 25 to 35 feet high with inclinations on the order of 1.8H:1V to 1H:1V. The obvious slope failure in the central portion of this fill slope appears to be associated with storm runoff, a rusted drain pipe that was known to have been filled with concrete or other "plugging" material, and/or water carried through the drain pipe from a wash pad westward to the fill slope. Portions of the fill slope adjacent to the failure generally appeared to be in good condition, showing typical surficial raveling but not exhibiting larger-scale failures.

The stability of the slope was analyzed below the proposed location of the new water tank by Geocon (October 2018). Based on field observations and conditions encountered in borings, the proposed tank location is underlain by older alluvium of the Pleistocene-age Riverbank Formation. Based on the results of the analyses, it was determined that the area in question is categorized as stable. Landsliding or slope stability would not be a hazard for the site provided that appropriate drainage and structure setback provisions are maintained relative to the slope along the west side of the site. Impacts would be less than significant with implementation of appropriate setbacks as part of the design process.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Best management practices (BMPs) are included as part of the Storm Water Pollution Prevention Plan that will be prepared for the proposed project and will be implemented to manage erosion and the loss of topsoil during construction-related activities (see **Hydrology and Water Quality Section**). Soil impacts would be reduced to a less than significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In general, the native soils encountered during the test pit excavations consist of lean clay with sand, sandy clay with gravel, and gravelly clay with sand. As indicated in iii), the site is underlain by stiff to hard lean clay to sandy lean clay (CL) with varied gravel content, and medium dense to very dense clayey sand (SC) and clayey gravel (GC). The geotechnical letter (May 2016) concludes that the potential for liquefaction and its associated adverse effects (lateral spreading, subsidence, or collapse) are low. Additionally, the Geologic Hazards Evaluation and Geotechnical Investigation prepared by Geocon (October 2018), confirmed this conclusion.

The new Baker FS will implement appropriate engineering setbacks where the site is located near Long Gulch. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The potential for clay-rich soils to swell and shrink with variations in soil moisture content is correlated to the plasticity index of the soil, with expansive soils generally having a high plasticity index. The on-site soils encountered in the geotechnical investigation were found to consist of clay to gravelly clays with low plasticity, so the risk of adverse consequences related to expansive soils is low and special design considerations are not necessary. Impacts related to expansive soils are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site currently has a septic tank and leach field that will be replaced as a result of the re-construction. The project site soils support the use of a septic tank and leach field. No impacts should occur.

## **GREENHOUSE GAS EMISSIONS**

### **Environmental Setting**

Gases that trap heat in the atmosphere are often called greenhouse gases. Some greenhouse gases such as carbon dioxide occur naturally and are emitted to the atmosphere through natural processes and human activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are:

- **Carbon Dioxide (CO<sub>2</sub>):** Carbon dioxide enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and also as a result of other chemical reactions (e.g., manufacture of cement, asphalt paving, truck trips). Carbon dioxide is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>):** Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N<sub>2</sub>O):** Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.
- **Fluorinated Gases:** Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances (i.e., CFCs, HCFCs, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

Various statewide and local initiatives to reduce California's contribution to Greenhouse Gas (GHG) emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring. Every nation emits GHGs; therefore, global cooperation will be required to reduce the rate of GHG emissions. There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, the state of California has passed legislation directing CARB to develop actions to reduce GHG emissions.

### **Assembly Bill 32**

The California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, sets a target for the state to reduce its total GHG emission levels to 1990 levels by 2020. The AB 32 Scoping Plan, developed by the California Air Resources Board (CARB) and first released in 2008, identifies local governments as strategic partners to achieve this reduction and equates a



GHG reduction of 15% below existing levels as being consistent with 1990 levels. Although “existing emission levels” is not formally defined by the Scoping Plan, agencies throughout California have often interpreted it as referring to emissions occurring between 2005 and 2008. AB 32 required the Scoping Plan be updated every five years. The 2013 Scoping Plan Update builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update defines CARB’s climate change priorities for the next five years and sets the groundwork to reach California’s long-term climate goals.

**Senate Bill 97 and the California Environmental Quality Act.** Senate Bill (SB) 97, which was signed in 2007 and went into effect in 2010, requires that projects estimate the GHG emissions that will result from the project as part of the environmental review process under the California Environmental Quality Act (CEQA). Jurisdictions that have adopted a Qualified GHG Reduction Strategy can streamline the GHG review if the project is shown to be compliant with the strategy by meeting the requirements in CEQA Guidelines Section 15183.5(b).

#### **California Air Pollution Control Officers Association**

CAPCOA, the California Air Pollution Control Officers Association (CAPCOA), is a non-profit association of the air pollution control officers from all 35 local air quality agencies throughout California. CAPCOA was formed in 1976 to promote clean air and to provide a forum for sharing of knowledge, experience, and information among the air quality regulatory agencies around the State.

The CAPCOA has established a significance quantitative threshold of 900 Metric Tons (MT) a year of CO<sub>2</sub>e emissions which Tulare County Air Pollution Control District (TCAPCD) and CAL FIRE have adopted.

**Tehama County General Plan.** The Tehama County General Plan, adopted in March of 2009, is a comprehensive, long-term document to help guide future land use and development policy in the county through 2028. All cities and counties in California are required by state law to adopt a general plan which must contain seven mandatory sections known as elements. The Open Space element of the Tehama County General Plan contains Policy OS-2.7, which requires the county to address GHG emissions

#### **Discussion**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The construction of the Baker FS Project would generate 79.54 MT of CO<sub>2</sub>e emissions per year (Air Quality Analysis Technical Appendix, October 19, 2018). Construction is anticipated to last approximately a year and three months. This amount of emissions is less than the TCAPCD 900 MT of CO<sub>2</sub>e emissions per year significance threshold. Therefore, the impact of the project on construction-related GHG emissions is considered less than significant and no mitigation measures are required.

Operation of the Baker FS Project would generate 54.89 MT of CO<sub>2</sub>e emissions per year (Air Quality Analysis Technical Appendix, October 19, 2018). Because implementation of the project would result in operational emissions equivalent to baseline "No Project" operational emissions, the impact of the project on operational GHG emissions is considered to be less than significant. No mitigation measures are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project is proposing to replace an existing facility and is not proposing any change in operations or staffing. Results of the analysis shows that the Baker FS produces approximately 54.89 MT CO<sub>2</sub>e GHG emissions per year. As a result, the project will not have a significant impact on GHG emissions.

## HAZARDS AND HAZARDOUS MATERIALS

### Environmental Setting

The site was developed with the fire station between 1948 and 1954 with the associated structures built throughout the years. The buildings currently onsite include barracks and mess hall, garage, fuel vault, 3-bay apparatus building and other site improvements including gravel areas and concrete and associated infrastructure improvements.

CAL FIRE recently purchased the project site and during that process a Phase I Environmental Site Assessment (ESA) of the property was conducted (SHN Engineers & Geologists, June 2016). The purpose of conducting a Phase I ESA is to assess the property, 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.

An additional survey was conducted as part of the Asbestos, Lead-Containing Paint, and Universal Waste Survey Report (December 2018) prepared by Geocon Consultants, Inc.

### Structures

The buildings onsite are over 50 years old and may contain the following hazardous materials that need to be considered.

#### *Asbestos*

The Code of Federal Regulations (CFR), 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration classify asbestos-containing material (ACM) as any material or product that

contains more than 1% asbestos. Non-Friable ACM (any material containing more than 1% that cannot be pulverized under hand pressure) is classified as either Category I or Category II.

- Category I – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- Category II – all remaining types of non-friable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Activities that disturb materials containing any amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, California Code of Regulations (CCR) § 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor. Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M).

#### *Lead Paint*

Construction activities (including demolition) that disturb materials or paints containing any amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, §1532.1. For a solid waste containing lead, the waste is classified as California hazardous when: 1) the representative total lead content exceeds the respective total threshold limit concentration of 1,000 milligrams per kilogram; or 2) the representative soluble lead content exceeds the respective soluble threshold limit concentration of 5 milligrams per liter based on the standard waste extraction test.

#### *Universal Waste*

Universal wastes are common hazardous wastes that are generated by households and businesses and are generally not allowed to be disposed of in solid waste landfills. Universal wastes include such items as fluorescent light tubes and lamps (that contain mercury), mercury-containing switches and thermostats, polychlorinated biphenyls (PCB), chlorofluorocarbons, batteries, paints, oils, fuels, solvents, and some electronic equipment.

#### Land

As indicated CAL FIRE developed the Baker FS in the late 1940s and the property has been used for firefighting services in the region. Portions of the property are graveled and are covered with cement, while much of it hasn't been developed and is natural or landscaped.

As indicated, the Phase I ESA was prepared prior to the purchase of the property. This analysis was prepared in general accordance with ASTM–International (ASTM) Standard Practice E1527-13 for the Phase I ESA process. Additionally, the Phase I ESA was conducted in conformance with the regulations and sections according to the U.S. 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 site investigation was intended to detect the presence of hazardous substances or petroleum products on the site.

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project replaces existing buildings, some of which are over 50 years old. The proposed project may include the transport, short-term storage and use, and disposal of hazardous materials related to construction, demolition, and operation and maintenance of the new facilities. BMPs stipulating proper storage of hazardous materials and vehicle fueling will be implemented during construction and demolition as part of the SWPPP.

### ASBESTOS

A representative from Geocon Consultations, Inc. performed surveys on the site on November 1 and 2, 2018. Suspect ACM materials were grouped into homogeneous areas with representative samples randomly collected from each area. In addition, each potential ACM was evaluated for quantity and friability. Geocon collected 85 bulk asbestos samples representing 37 material types at the Site.

Readily accessible components and equipment observed were inventoried to represent potential universal waste or that contain suspect hazardous building materials at the Site.

**Table 6. Asbestos**

Summary of Positive Asbestos Results Polarized Light Microscopy – EPA Text Method R600/R-93/116				
Sample Group No.	Description of Material	Approximate Quantity	Friable	Asbestos Content
BFS-3	Off-white with brown streaks 12" X 12" resilient floor tile with brown mastic (barracks/mess hall)	200 square feet	No	2% - Tile ND – Mastic
BFS-6	White sink undercoat (mess hall)	10 square feet	No	2%
BFS-31	Black roof penetration mastic (contractor's box)	20 square feet	No	3-6%

ND- No asbestos fibers detected (PLM)

Asbestos was detected in samples representing the following materials:

- resilient floor tile (Category I nonfriable/nonhazardous material);

- sink undercoat (a Category II nonfriable/ nonhazardous material) which may become RACM during normal demolition processes unless removed intact; and
- roof penetration mastic (Category I nonfriable/nonhazardous material).

NESHAP regulations require that the sink undercoat (a Category II nonfriable/nonhazardous material) identified during the asbestos survey be removed prior to renovation or demolition activities that would disturb the material.

NESHAP regulations do not require that Category I nonfriable/nonhazardous materials (i.e., floor tile and roofing mastic) identified during the asbestos survey be removed prior to renovation or demolition, or be treated as hazardous waste. However, the disturbance of these materials is still covered by the Cal/OSHA asbestos standard (Title 8, CCR §1529). Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos waste. Some landfills may require additional waste characterization.

Written notification to EPA Region IX and the California Air Resources Board is required prior to commencement of *any* demolition activity, including removal of load-bearing walls (whether asbestos is present or not). In accordance with Title 8, CCR 341.9, written notification to the nearest Cal/OSHA district office is required at least 24 hours prior to asbestos-related work.

With implementation of the following mitigations, the project will have a less than significant impact with regard to hazards and hazardous materials.

#### **Mitigation Measure HAZ-1: Demolition Requirements**

Demolition activities shall be performed under the direction of an Independent State Certified Asbestos Consultant with oversight performed by a State Certified Site Surveillance Technician. All materials shall be disposed of at an approved facility licensed to handle such waste.

#### **Mitigation Measure HAZ-2: Notification to Contractors and Building Occupants**

In accordance with OSHA Construction Asbestos Standards, CAL FIRE shall notify the following persons of the presence, location and quantity of asbestos or material presumed to contain asbestos at any concentration, at the work sites in their buildings and facilities:

- a) Prospective contractors applying or bidding for work whose employees reasonably can be expected to work in or adjacent to areas containing such material;
- b) Employees who will work in or adjacent to areas containing such material;
- c) All employers of employees who will be performing work within or adjacent to areas containing such materials; and
- d) CAL FIRE staff who occupy areas containing such material or will be overseeing work conducted onsite.

#### **Mitigation Measure HAZ-3: Notification to EPA and Air Resources Board**

CAL FIRE shall submit NOTIFICATION OF DEMOLITION AND RENOVATION to EPA Region IX and the California Air Resources Board at least 30 days prior to demolition activities.

**Mitigation Measure HAZ-4: OSHA Pre-job Notification**

In accordance with CCR, Title 8, Section 1532.1(e) and (l), the contractor shall provide a written Pre-job Notification to the nearest Cal/OSHA office within 24 hours of the start of work.

**LEAD PAINT**

Field observations and laboratory analytical results for paints testing positive for lead are summarized in the table below.

**Table 7. Lead Paint**

<b>Summary of Paint Results Total and Soluble Lead</b>					
<b>Sample No.</b>	<b>Sample Description</b>	<b>Approximate Quantity Peeling/Flaking</b>	<b>Total Lead (mg/kg)</b>	<b>Soluble Lead WET (mg/l)</b>	<b>Soluble Lead TCLP (mg/l)</b>
BFS-P1	Beige paint (barracks/mess hall and office roof)	Intact	620	<1.0	<6.2
BFS-P7	White paint (engine garage exterior walls)	Intact	510	<1.0	<0.25
BFS-P8	Light green paint (engine garage interior steel frame)	Intact	930	7.7	0.34
BFS-P9	Red paint	Intact	110	5.3	---
BFS-P10	White paint (water aboveground tank)	10 square feet	14,000	---	2.6
BFS-P11	White paint (propane tank)	10 square feet	26,000	---	62
BFS-P12	Yellow paint (propane and fuel tank bollards)	Intact	4,200	---	1.7
BFS-P14	Silver paint (hose rack)	Intact	1,700	---	<0.25

mg/kg – milligrams per kilogram

WET – Waste Extraction Test

Mg/l – milligrams per liter

TCLP – Toxicity Characteristic Leaching Procedure

----- - Not analyzed

< - less than

Lead was not detected in samples representing intact interior wall paint at the barracks/mess hall, and beige exterior wall and dark brown exterior trim paints on the barracks/mess hall, office/exercise room, gas building, gardening shed, and pump house, and on the fuel ASTs collected during our survey. Consequently, these paints are not considered a California and Federal (RCRA) hazardous waste based on lead content if stripped, blasted, or otherwise separated from the substrates.

Lead was detected in samples representing beige roof paint at the barracks/mess hall and office/exercise room, and white exterior wall paint on the engine bay at concentrations less than the California hazardous waste threshold. Consequently, these paints are not considered a California hazardous waste based on lead content if stripped, blasted, or otherwise separated from the substrates.

Lead was detected in samples representing light-green paint on the engine bay interior steel frame, red paint on the fire box, white paint on the water AST and propane tank, yellow paint on the bollards, and silver paint on the hose rack at concentrations exceeding either California



or Federal (RCRA) hazardous waste thresholds. Consequently, these paints are considered either a California or Federal (RCRA) hazardous waste based on lead content if stripped, blasted, or otherwise separated from the substrates.

The report indicated that all paints at the Site be treated as lead-containing for purposes of determining the applicability of the Cal/OSHA lead standard during maintenance, renovation, or demolition activities. This recommendation is based on the sample results and the fact that lead was a common ingredient of paints manufactured before 1978 and is still an ingredient of some paints.

Implementation of **Mitigation Measure HAZ-4** should reduce potential impacts to less than significant.

#### **UNIVERSAL WASTE AND SUSPECT HAZARDOUS BUILDING MATERIALS INVENTORY**

Universal waste and suspect hazardous building materials observed in accessible areas of the Site during the survey include the following:

- Fluorescent light tubes and high-intensity discharge (HID) light bulbs (possible mercury containing components);
- Fluorescent and HID light ballasts (potentially contains PCBs);
- Pad- and wall-mounted HVAC units, refrigerators, and ice machine (CFCs);
- Gasoline and diesel in the ASTs and associated gas house;
- Pole-mounted electrical transformer adjacent to the wash pad (potential PCBs);
- Cathode-ray tube television/computer monitor (potentially contains metals);
- Surplus automotive fluids (petroleum hydrocarbons and solvents); and,
- Surplus household quantities of retail paints, solvents, pesticides (potentially contains metals, solvents, and pesticides).

#### **Mitigation Measure HAZ-5: Universal Waste and Hazardous Building Materials**

The following shall be implemented prior to demolition -

##### **Fluorescent and HID Lights**

Fluorescent light tubes and HID light bulbs shall be removed from the light fixtures and managed for recycling prior to demolition activities that may impact the material.

##### **Fluorescent Light Ballasts**

Fluorescent light ballasts shall be inspected for PCB status (labeling) prior to demolition work that may impact the light fixtures. Fluorescent light ballasts that are unlabeled or lack a "No PCBs" designation shall be treated as PCB-containing components and managed as a hazardous waste.

### **Refrigerants**

The pad-mounted HVAC unit (barracks/mess hall), wall-mounted air conditioner (office/exercise room), refrigerators and ice machine (barracks/mess hall) shall either be reused or have the refrigerant in the equipment reclaimed for recycling prior to demolition activities that may result in the equipment being managed for recycling or disposal.

### **Gasoline and Diesel Fuels**

The gasoline and diesel fuel in the two fuel ASTs shall be used and the convault ASTs managed for reuse, as appropriate, if tested and determined to be free from leaks. The fuel in the ASTs shall be used/drained and the tanks cleaned if they are to be decommissioned prior to demolition activities that may impact the ASTs.

### **Electrical Transformer**

The utility owner of the pole-mounted electrical transformer shall be contacted to decommission and remove the transformer prior to demolition operations that may impact the transformer.

### **Cathode-ray Tube Equipment**

The television and computer monitor with possible cathode-ray tubes located in the office/exercise room shall be removed intact and managed for reuse or for recycling prior to demolition operations that may impact the equipment.

### **Surplus Automotive Fluids, Paints, Solvents, Pesticides**

Surplus portable containers of automotive fuel, and retail-sized containers of automotive products, paints, solvents, and pesticides may be reused as appropriate or managed for recycling or disposal at facilities that accept these materials/products prior to demolition activities that may impact buildings (engine bay, gardening shed, gas house and contractor's box) where these materials are stored.

Implementation of the Mitigation Measure HAZ-5 will ensure that impacts will be less than significant.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Hazardous materials, such as diesel fuel and oil, will be used during demolition, construction and operation and maintenance at the project site. The release of any hazardous substance to the environment will be prevented through the implementation of BMPs listed in the SWPPP and the mitigation measures identified in item (a) above. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within one-quarter mile of an existing or proposed school. The nearest school is West Valley High School located approximately 10 miles northeast of the site. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As indicated in the environmental setting section, SHN (SHN) Engineers & Geologists conducted a Phase 1 ESA of the property (June 2016). SHN used the ASTM Standard Practice E1527-13 recommended search radii, and reviewed the Environmental Data Resources (EDR) database, which tracks sites with known hazardous materials and hazardous material releases.

SHN did not identify any potential or confirmed state or federal "Superfund" site located on or immediately adjacent to the subject property. The subject property does not appear on the EPA's Emergency Response Notification System (ERNS) database, or contain any business or facility that is listed as a RCRA large quantity generator.

SHN reviewed databases regarding hazardous materials contamination that are maintained by the following agencies:

- EPA
- DTSC
- Office of Environmental Health Hazard Assessment
- RWQCB
- State Water Resources Control Board (SWRCB)
- California Integrated Waste Management Board
- California Division of Oil and Gas
- Corrective Action Report
- Resource Conservation and Recovery Information System

The property was identified with regard to historical release of hazardous waste in the EDR database and in the SWRCB GeoTracker database. However, this was remedied and the site is listed as closed with no further action required.

The property is also listed in the Recovered Government Archive Leaking Underground Storage Tank (RGA LUST), Leaking Underground Storage Tank (LUST), Hazardous Waste & Substance Site List (HIST CORTESE) databases searched by EDR. The subject property is known to have stored and/or used regulated materials.

Finally, the subject site is listed in the GeoTracker Database (Global ID No. T0610300017), under Central Valley Regional Water Quality Control Board (RWQCB) Case No. 520017. The site summary shows that a case was opened in February 1988 during the removal of a UST. Monitoring wells were installed throughout the site and later destroyed. In April 1998, a no further action letter was issued by the RWQCB.

Although the site is identified on three agencies lists due to a previous LUST, the tank has been removed and the issue has been resolved and no further requirements are necessary. Impacts are less than significant.

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is not located within an airport land use plan or within two miles of a public airport or public use airport. The closest airport is the Flying N Ranch Airport (private) located approximately 9 miles northeast of the project site. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in item (e), the nearest private airport is the Flying N Ranch Airport, located in Cottonwood approximately 9 miles northeast of the project site. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project will replace an existing fire station and will not impair implementation of or physically interfere with an adopted emergency plan or evacuation plan. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Tehama County Fire Department (TCFD) is administered under contract by CAL FIRE and provides fire protection, emergency dispatching, specialized training, equipment repair and maintenance, fire prevention, fire safety education and emergency medical responses to the unincorporated areas of Tehama County with the exceptions of the Gerber/Las Flores Community Service District and the Capay Fire Protection District. Thus, in Tehama County, the Tehama County Fire Department and the California Department of Forestry and Fire Protection are integrated departments that mutually support each agency's fire suppression and emergency response efforts.

The project will replace an essential fire station that provides services to decrease the loss of property and protect the population located in the fire service area. No impact would occur.

## **HYDROLOGY AND WATER QUALITY**

### **Environmental Setting**

Tehama County has a Mediterranean climate, typified by dry, hot summers and cool, wet winters. The driest portions of the county coincide with the lower elevations along the Sacramento River where 18 inches or less precipitation is received on average each year. Precipitation levels gradually increase with elevation with the highest precipitation zones receiving approximately 65 inches of precipitation per year along the crest of the Coast Range, and from 65 to 85 inches in the Cascade Mountains and the Sierra Nevada.

Rainfall is important for recharging aquifers and providing surface water for downstream users. In Tehama County much of the rainfall tends to travel as surface water to streams and rivers

immediately following each storm event and is then conducted to water storage facilities (reservoirs) or to the Pacific Ocean via the Sacramento River. Snowfall contributes to the county's water needs in a different and vital way because it accumulates throughout the winter and is stored as snowpack, melting gradually in spring and summer supplementing the surface water flow during the warm-dry period of year when the state is in its normal dry-weather phase. Therefore, in drainages where significant amounts of snowfall and snow pack accumulation occur, stream water flow tends to be more evenly distributed throughout the year than watersheds that are at lower elevations and have little or no snow pack.

Total annual precipitation, the sum of total mean precipitation and snow pack water content, suggests that the coast range portions of Tehama County receive considerably less annual precipitation than the upper elevations of the Cascades in the eastern fringe of the county.

### **Surface Water**

Cool season rains and melting snow pack flow in county streams to the Sacramento River. The larger streams draining eastward from the Coast Range include Cottonwood, Elder, and Thomes Creek. Larger streams that flow westward to the Sacramento River, from the Cascades and Sierra Nevada, include Battle, Paynes, Antelope, Mill, Deer, and Pine Creek.

The project site is within the Cottonwood Creek watershed that is located in the northwestern portion of Tehama County. Cottonwood Creek is the largest undammed tributary in the Sacramento River Basin. It has a natural pattern of high flows and peak runoff events in winter and low flows in the summer and fall. The average annual flow in the lower reach near Cottonwood is 860 cfs. Summer flows typically average from 50 to 100 cfs. Unlike many of the watersheds on the east side of the Sacramento Valley, in Cottonwood Creek there is relatively little water diversion for summer irrigation use.

Drainage comes from the east slope of the Coast Range and Klamath Mountains and the southern slopes of the Trinity Mountains, entering the Sacramento River near the town of Cottonwood. With its three main tributaries (North Fork, Middle Fork, and South Fork) and more than 500,000 acre-feet in annual runoff, this is the third largest watershed on the westside of the basin.

The Cottonwood Creek Watershed is geographically split between Shasta and Tehama Counties. Both Resource Conservation Districts (RCDs) are active in implementing projects targeting erosion control, fire and fuels management, noxious and invasive plant removal, and improved livestock management.

### **Groundwater Hydrology**

The majority of Tehama County's groundwater resources come from the Sacramento Valley groundwater basin. The Sacramento Valley groundwater basin lies at the head of the Sacramento Valley and is defined to the north by the Red Bluff Arch, a geologic structure, extending in an east-northeast series of folds and faults immediately north of Red Bluff, which effectively separates groundwater conditions of Tehama County from areas to the north.



Groundwater movement in Tehama County generally flows from both the Coast Range and Cascades toward the Sacramento River. The Red Bluff Arch structure affects water flow north in the far northern extent of the county, with groundwater movement tending to flow to the northeast.

Most of Tehama County's wells are located in a north-south swath along either side of the Sacramento River. Over 10,000 wells exist in the county with approximately 78 percent classified as having domestic usage. Twelve percent are used for irrigation, four percent for monitoring purposes, one percent for municipalities, and six percent for miscellaneous uses.

### **Water Quality**

Surface water and groundwater within Tehama County are generally of high quality, with only a few exceptions. The only river with water quality concerns is the Sacramento River, which the Regional Water Quality Control Board has classified as impaired because of an unknown toxicity. The primary groundwater quality concern is in the Antelope area, just to the east of Red Bluff. In the Antelope area, recent groundwater testing has indicated increased levels of nitrate (a precursor to a condition that prevents blood from carrying oxygen to the body) and coliform (an indicator of wastewater in the groundwater). Area septic systems are the likely cause of the contamination, and the residents are examining options for cleaner drinking water and alternative wastewater treatment methods.

Water quality data for Cottonwood Creek come mostly from past studies conducted by DWR and the USACE (from water development feasibility studies). Physical and chemical constituents generally reflect good water quality that is supportive of aquatic life and other beneficial uses. Turbidity and suspended sediment are frequently elevated during high-flow events, and the largest source of this sediment turbidity is from landslide features in the South Fork drainage. Water temperatures in the lower reach of Cottonwood Creek are not supportive of cold water species on a year-round basis. Because this watershed has a significant run of anadromous fish, maintaining adequate temperatures during times of both in- and out-migration is an important issue. Temperatures in Cottonwood Creek are influenced largely by ambient air temperature, flow, and channel conditions (e.g., streamside shade canopy).

## **Regulatory setting**

### **Clean Water Act**

The Clean Water Act was amended in 1972 to prohibit discharge of pollutants to Waters of the U.S. from any point source unless it is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, further amendments to the CWA added Section 402(p), established a framework for regulating municipal and industrial storm water discharges under the NPDES Program. In November 1990, the EPA finalized regulations establishing storm water permit requirements for specific industries. These regulations provide that storm water discharges to waters of the U.S. from construction projects with five or more acres of soil disturbance are prohibited unless the discharge is in compliance with the NPDES Permit. Further regulations (titled the Phase II Rule) which became final on December 8, 1999 lowered the permitting threshold from five acres to one acre.

While EPA regulations allow two permitting options for storm water discharges (Individual Permits and General Permits), the California State Water Resources Control Board (SWRCB) has elected

to adopt only one statewide General Permit that applies to the majority of storm water discharges associated with construction activities. On August 19, 1999, the State Water Board reissued the General Construction Storm Water Board amended Order 99-08-DWQ to apply to sites as small as one acre (SWRCB 2010).

The latest General Construction Permit (Order No. 2009-0009-DWQ), which the proposed project will comply with, was adopted on September 2, 2009. Order No. 2009-0009 DWQ created several new significant changes including, formal training requirements, online permitting and SWPPP documentation upload, minimum BMPs, Numeric Action Levels for pH and turbidity, as well as monitoring based on project risk to sediment loss and threat to receiving waters (SWRCB 2010).

### **The Sacramento Valley Water Management Agreement**

With the adoption of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, the various users of the drainage's water met to determine the responsibilities for meeting flow requirements. Each of the local parties is required to develop and implement a variety of local water management projects that will increase water supplies cumulatively, meeting both in-basin demands and Delta water quality requirements.

Under this agreement, regional water management efforts will emphasize groundwater planning, providing for unmet demands in the Sacramento Valley, providing for water use efficiency measures, and developing water management projects for local use.

### **County of Tehama General Plan**

The Tehama County General Plan is used to guide future development in unincorporated areas of the county. State law requires that all local governments prepare a General Plan for future development in their jurisdictions. The county's General Plan is proposed for 2008 through 2028.

Numerous policies and implementation measures included in the Safety Element, Open Space and Conservation Element and the Public Services Element address hydrology and water quality issues throughout the county.

### **Tehama County Flood Control and Water Conservation District Coordinated AB 3030 Groundwater Management Plan**

The 3030 Groundwater Management Plan's purposes and goals are:

- To balance long-term annual replenishment with extraction, consistent with public interest of the Plan Area population.
- To prevent long-term overdraft of groundwater.
- To develop a comprehensive groundwater basin management program which protects the county's groundwater in order to provide local users with reliable long-term water supplies.
- To gain county-wide consensus whenever possible, while implementing the groundwater management plan.
- To develop a plan to protect basin groundwater quality.

Tehama County's 3030 Groundwater Management Plan includes three phases. In Phase I only non-intervening activities occur, including performing water level and water quality monitoring;

coordinating efforts with other agencies; developing data inventory and evaluation; coordinating with the technical advisory committees; issuing reports; and promoting public outreach. Phase I will continue for the duration of plan implementation. Phase II and III will only be initiated if more directed groundwater management activities are deemed necessary and would require a separate agreement between the TCFCWCD and participating entities signatory to the MOU.

Phase II could include the identification and management of well head protection and recharge areas; development of procedures and processes to interface with land use planning agencies to protect against groundwater contamination; drought and overdraft mitigation planning; replenishment assessment; and protection of in-basin beneficial uses and promotion of conservation programs. Phase III would involve "active management", including control of saline water intrusion; regulation of migration of contamination; facilitation of conjunctive use operations; and assessment, construction, and operations of various groundwater management projects (i.e., contamination cleanup, recharge, storage, conservation, water recycling, or extraction projects) (TRCDWC 2003).

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

During project construction, water quality impacts and discharge could occur during storm events if proper controls are not implemented. Loose soils, chemical and fuel spills from vehicles, and equipment or miscellaneous construction materials and debris could be transported off-site in overland flow, degrading surface and groundwater quality. During a heavy rainfall, runoff from construction areas could flow off-site and reach nearby surface water drainage facilities. The proposed project is subject to the State Water Resources Control Board and the statewide NPDES stormwater permit for construction. Specifically, CAL FIRE will submit a SWPPP to the Central Valley Regional Water Quality Control Board (CVRWQCB) that will identify BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements.

In addition to construction related BMPs, CAL FIRE will design and construct a post-construction storm water conveyance system pursuant to federal, state, and county standards. A Stormwater Quality Management Plan (SWQMP) will be submitted for approval that identify onsite BMPs per all applicable regulations.

Although CAL FIRE does not need to obtain any discretionary permits from Tehama County, the county codes related to water quality standards and waste discharge requirements will be adhered to through the CVRWQCB process. The proposed project includes the installation of a new stormwater collection system and a drainage plan will be designed by a registered civil engineer to safely manage the conveyance of stormwater runoff.

Implementation of best management practices required as part of the SWPPP and SWQMP will ensure that the proposed project does not create or contribute to any water quality violation. A less than significant impact would occur.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project is replacing an existing facility that obtains water from an existing well. The project will not increase water usage as the project will not increase the existing operations. Baker FS is currently served by an existing well that will be retained for the new fire station. This well has provided adequate water supply for many years and will continue to provide water to the new fire station. Impacts would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project will require grading and an additional paved area. This new pavement will cause a slight increase in impervious surfaces compared to the existing ground conditions of compacted dirt, gravel and paving. The proposed project includes the installation of a permanent drainage system with erosion and sedimentation control features. In addition, a SWPPP and a SWPCP will be required and will provide BMPs to be incorporated during project construction and post-construction to prevent future erosion and siltation. Implementation of proper temporary and long-term post construction erosion and sediment control BMPs and installation of retaining walls will minimize potential erosion or siltation on, or off-site, during and following construction.

There are no streams or rivers that transect the project site and the project will not alter the natural course of drainage on-site due to grading, paving, and placement of structures. A steep channel of Long Gulch is located adjacent to the western property boundary. Implementation of proper temporary and long-term erosion and sediment control BMPs will minimize potential erosion or siltation on or off-site. A less than significant impact would occur.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As indicated in item (c) above, the project will increase impervious surfaces onsite compared to the existing ground conditions of compacted dirt, gravel, and paving. The proposed project's drainage plan will be designed by a registered civil engineer to safely retain, detain, and/or convey stormwater runoff.

Implementation of BMPs during construction will ensure that flooding will not occur on- or off-site. A less than significant impact would occur.

e) Would the project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

As mentioned in items (c) and (d), the proposed project will slightly increase the amount of impervious surfaces on-site and will increase the amount of runoff from the project site. Implementation of BMPs and the installation of on-site drainage infrastructure (stormwater collection system) would increase the site's capacity to control runoff. A less than significant impact would occur.

f) Would the project otherwise substantially degrade water quality?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project will adhere to all state, federal and local regulations regarding water quality and will prevent discharge of any materials or substances that may degrade water quality. Adherence to the NPDES requirements as part of the permit obtained from the RWQCB will control any polluted sources of water that would have the potential to impact water quality.

Please also see **Hazards and Hazardous Materials** Environmental Checklist and Discussion regarding potential hazardous substances on-site. A less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is not located within a 100-year flood hazard area and is not mapped on a federal Flood Hazard Boundary, Flood Insurance Rate Map or other flood delineation map. No impact will occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in item (g), the proposed project is not located within a 100-year flood hazard area. Therefore, no structures will impede or redirect flood flows. No impact will occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Based on the Flood Insurance Rate Maps (FIRM) prepared by the Federal Emergency Management Agency (FEMA) (Map No. 06103C0400H), the site is located approximately 200 feet southeast from "Zone A" which is "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined." (FEMA, 2011).

The site is located on an older alluvial terrace approximately 55 feet above the channel of Dry Creek. The review of regional topographic maps and aerial photography indicates that the only reservoir located upstream from the site is Lake Almanor, a 1.3-million-acre reservoir located 66 miles east of the site. Based upon the California Governor's Office of Emergency Services *Dam Inundation Maps (May 2014)*, the site does not appear to be located within the



inundation zones of any lake. Therefore, dam failure inundation is not considered to be a hazard for the site. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Would the project result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The site is located approximately 85 miles from the Pacific Ocean and is not located near any large body of water. Therefore, tsunamis (seismic sea waves) or seiches (wave oscillations in an enclosed or semi-enclosed body of water) are not hazards for the site. No impact would occur.

## **LAND USE AND PLANNING**

### **Environmental Setting**

The State of California and state-owned land are not subject to local city or county land use development permits. However, the state is subject to the requirement under CEQA to assess project-related impacts that may occur due to conflicts between existing and proposed land uses. The project was reviewed to determine consistency with Tehama's County plans and policies.

The project site is designated as Upland Agriculture (UA) in the General Plan. The upland agriculture land use designation is used to preserve lands capable of supporting grazing activities, and to provide for open space, recreation, scenic quality or resource protection. The zoning designation is identified as Agricultural/Upland (AG-1) which is intended to recognize lands capable of supporting grazing activities, providing for areas of intensive and extensive agriculturally-compatible uses; identifying and conserving areas of important open space, recreation, scenic, and natural value; and accommodating the use of land for compatible non-agricultural uses.

Surrounding properties are also designated UA and zoned AG-1. The project site is approximately 4.22 acres and was recently purchased. This parcel was a portion of a larger 359-acre parcel, which surrounds the project site.

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is located on a site that has been developed with a Fire Station since the late 1940s. The surrounding area is rural and agricultural in nature and the replacement of the Fire Station will not create a division within this community. No impact would occur as a result of the project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated, the project site is designated as UA in the Tehama's County General Plan and zoned AG-1. The project proposes to replace the current Fire Station with a modern facility within the property.

Although the general plan designation and zoning support agricultural types of uses, residential and commercial recreation is an allowed use. The fire station has been on this site, which has been leased, for over 60 years. The fire station provides firefighting services for 247,248 acres in Tehama and Glenn County State Responsibility Areas (SRA). The location provides adequate emergency response to the rural area.

The project will not have an impact with regard to agricultural land use as the fire station has been in operation since the late 1940s and has provided emergency services to the surrounding rural area for several years.

No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is not located within an area that is included in a habitat conservation plan or natural community conservation plan. No impact would occur.

## MINERAL RESOURCES

### Environmental Setting

According to Tehama County's General Plan Environmental Impact Report (January 2009) most of Tehama County's mineral wealth is derived from the extraction of non-metallic sand, gravel, and volcanic cinder, which are used primarily by local paving and construction industries. Other mineral resources found in the county include aragonite, borax, chalcopyrite, chromite, copper, cristobalite, galena, garnet, opal, pectolite, penninite, sassolite, and Wallstonite.

The Surface Mining and Reclamation Act of 1975 requires the identification and classification of mineral resources in areas within the state that are subject to urban development or other land uses that could otherwise prevent the extraction of important mineral resources. These Mineral Resource Zones (MRZs) are classified by the State Geologist by analyzing associated geologic and economic factors. There are four general classifications based upon the State Geologist's determination of identified mineral resource significance. The four classifications are as follows:

- MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ.

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not designated or zoned as mining resources and has never been mined. The project site is not located within any of the areas that have been mapped by the California Department of Conservation, and no known mineral resources occur onsite.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As of May 1981, there were 32 mineral extraction operation permits granted in Tehama County. The closest mining site is a gravel site located approximately 10 miles north. The project site is not designated in the Tehama County General Plan, or other land use plan, as having locally important mineral resources. No impact would occur.

## NOISE

### Environmental Setting

The proposed project will replace a currently active fire station and does not propose a change in operations. The Baker FS is located on Bowman Road in a rural area in Tehama County. Development is minimal in the area and the nearest residence is approximately 500 feet to the west on the other side of Long Gulch. The next nearest residence is approximately 0.6 of a mile to the southeast. The proposed project is bordered by open space and mixed open woodland.

Noise is considered a subjective reaction and is a sound that is loud, unpleasant, unexpected or undesired. Noise is measured in A-weighted decibels, abbreviated dBA, which is an expression of the relative loudness of sounds in air as perceived by the human ear. The decibel is the unit used to measure the intensity of a sound. The A-weighted sound level has become the standard tool to measure environmental noise.

The noise for an area is described as ambient noise level and includes the noise level associated with a particular environment. A common way to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level

containing the same total energy as a time varying signal over a given time period (usually one hour).

The day-night average level (Ldn) is based upon the average noise level over a 24-hour day, with a +10-decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The additional decibels are added during the nighttime as people are more sensitive to nighttime noise exposures. The Community Noise Equivalent Level (CNEL) is similar to the Ldn, but with weighing factors placed on two time periods (7:00 am to 10:00 pm, and 10:00 pm to 7:00 am).

The existing ambient noise environment in the vicinity of the project site is characterized as rural open space area. Noise levels within these types of areas are typically below 45 dBA, which is considered low.

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project create exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

During the construction of the proposed project, noise from demolition and construction activities would add to the noise environment in the immediate vicinity around the project site. Activities involved in construction would generate maximum noise levels, as indicated in Table 8, ranging from 76 to 89 dBA at a distance of 50 feet.

**Table 8. Construction Equipment Noise**

Type of Equipment	Maximum Level, dBA at 50 feet from source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Crane, Derrick	88
Dozer	85
Dump Truck	76
Excavator	81
Grader	85
Jack Hammer	88
Loader	85
Paver	89
Roller	80
Trencher	81
Scraper	89
Truck	88

Source: Construction Noise Handbook, U.S. Department of Transportation, Federal Highway Administration and EPA 1971.

During construction activities noise would also be generated by increased truck traffic on area roadways. Additional noise would be generated by the transport of heavy materials and equipment to and from the construction site.

Although Tehama County has not adopted a noise ordinance, the following General Plan policies are applicable regarding noise:

**Policy N-2.3**

The county shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and the California Building code regarding the construction of new multiple-occupancy dwellings such as hotels, apartments, and condominiums.

**Implementation Measure N-2.3a**

Update the county's Building Codes to include the State Noise Insulation Standards of the California Building Code.

**Policy N-2.4**

The county shall restrict construction activities to the hours as determined in the countywide noise control ordinance, if such an ordinance is adopted.

**Implementation Measure N-2.4a**

Restrict construction activities to the hours as determined by the county's noise control ordinance unless an exemption is received from the county to cover special circumstances. Special circumstances may include emergency operations, short-duration construction, etc.

**Implementation Measure N-2.4b**

Require all internal combustion engines that are used in conjunction with construction activities be muffled according to the equipment manufacturer's requirements.

The operational noise levels will not change from the current conditions. The existing ambient noise in the area is approximately 44 – 50 dBA due to the rural nature of the area. The noise increase during construction will be of short duration, will occur during daytime hours, will not create significant impacts to nearby residences, and will not exceed noise standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards. Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project create exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Some types of construction equipment can produce vibration levels that can cause architectural damage to structures and be annoying to nearby sensitive receptors. Vibration levels generated during construction of the proposed project would vary during the

construction period, depending upon the construction activity and the types of construction equipment used. Groundborne vibration is measured in peak particle velocity (PPV).

The nearest residence is approximately 500 feet to the west beyond a small gulch and will not be impacted by any vibrations produced by construction equipment. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project is replacing a current operational fire station. The noise levels will remain the same as the operational characteristics would not change. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demolition and construction of the new fire station will result in a temporary increase in the ambient noise levels in the project vicinity. However, as discussed in item (a), construction would be temporary and only occur during the allowed daytime hours indicated in the county general plan. Impacts are less than significant.

	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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is not located within an airport land use plan or within two miles of a public airport or public use airport. The closest public airport is the Redding Municipal Airport located approximately 25 miles northeast of the project site. No impact would occur.



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The closest private airstrip is the is the Fly N Ranch (Lake California Airport), located approximately 13 miles to the northeast. The project will not expose people residing or working the project area to excessive noise levels. No impact would occur.

## POPULATION AND HOUSING

### Environmental Setting

According to the California Department of Finance, the estimated population for Tehama County was 64,039 in January 2018 with the unincorporated portion total population of 40,936. The proposed project is located in Cottonwood at 14800 Bowman Road that is predominately rural agricultural with scattered rural residential development. In 2010, the U.S. Census reported that Cottonwood had a population of 3,316. The nearest residence is located approximately 550 feet to the west of the project site.

The median age in the county is 37.8 and the predominant race is white representing approximately 86 percent of the population. Educational, health and social services represent the biggest employment sector. Other large sectors include retail, manufacturing and agriculture, forestry, fishing, hunting and mining.

### Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project does not propose any new homes or businesses or change the existing capacity of the Baker FS. The current maximum staffing levels for the two-engine fire station during normal staffing situations include one captain, one battalion chief, and two to three firefighters, for a total of four to six onsite during some shifts. During a fire incident, maximum staffing levels will be two to three fire captains, one battalion chief, and six fire firefighters for a total of eight to ten personnel. The replacement station will retain this staffing level and no new employees would be hired.

The proposed project will be built to support existing uses onsite. No new homes, road extensions or other infrastructure are included as a part of the project that would induce population growth. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project will replace an existing facility that is located on state property within an agricultural area. Project construction activities will occur onsite and will not extend beyond the property boundaries. The proposed project will not displace existing homes and no impact would occur as a result of project implementation.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in item (b), the proposed project will replace existing facilities onsite and no other project features will occur offsite that would displace people living in the area. No impact would occur.

## **PUBLIC SERVICES**

### **Environmental Setting**

#### **Fire Protection**

Within the unincorporated region's in Tehama County emergency services, fire and emergency medical services are provided by local fire service agencies, volunteer fire departments, the cities of Red Bluff and Corning, CAL FIRE, and the U.S. Forest Service. Twelve local fire departments are located throughout the county, including, Corning, Bend, Gerber, Los Molinos, Manton, Mineral, Paskenta, Paynes Creek, Richfield, Red Bluff, Cottonwood, and Vina. located throughout Tehama County. All are volunteer fire departments with the exception of the Red Bluff fire department. The Tehama County Emergency Command Center (ECC) coordinates emergency response in the county.

### **Police Protection**

The Tehama County Sheriff's Department provides law enforcement in the unincorporated areas of Tehama County and the City of Tehama. The Sheriff is the chief law enforcement officer of the county, with jurisdiction throughout the unincorporated county, the incorporated cities, and state owned property. In Tehama County, the Sheriff's Department and the Office of Emergency Services are combined. The Sheriff's Department patrol services operate community resources and service centers, special tactical operations, criminal investigations, emergency operations, and specialized patrol units. Additional functions include prisoner transportation, narcotics enforcement, search and rescue, court security and boating enforcement. The Tehama County Sheriff's Department has a paid staff of 119, consisting of 78 officers, 13 Sheriff service officers, eight dispatch personnel, and 20 support personnel. The Sheriff's Department headquarters is located at 502 Oak Street in the City of Red Bluff (Sheriff's Department, 2006).

Level of Service may be measured by the ratio of sheriff's deputies to residents. The Tehama County Sheriff's Department attempts to maintain a minimum of one officer per 1,000 residents in the unincorporated areas of the county. The Tehama County Sheriff's Department currently employs 119 personnel, including 78 sworn deputies. The existing staffing ratio provides a higher level of service with approximately two deputies per 1,000 residents (Sheriff's Department, 2006).

### **Public Schools**

Tehama County public schools include 21 elementary schools, four middle schools and five high schools. Additionally, there are three private elementary schools and one private Catholic high school in the county. There are also two charter schools in operation.

The total enrollment for Tehama County public schools, K-12, in 2004 was 10,274 with an average class size of 24 students. Information from the California Department of Education indicates that enrollment in all Tehama County schools has been fairly consistent over the last five years. The Cottonwood Union School District serves the proposed project area and serves approximately 1,100 preschool through 8<sup>th</sup> grade students.

### **Parks**

The Tehama County Parks and Recreation Department (TCPRD) has the primary responsibility for providing and maintaining recreation facilities and services within the General Plan Planning Area. TCPRD owns and maintains nine parks and two public access areas, all of which are maintained by the county parks and recreation staff.

The two closest parks are Antelope Park (approximately 20 miles southeast) and Ridgeway Park (approximately 22 miles southeast).

### **Tehama County Library**

The Tehama County Library system has three branches to serve the residents of the county with locations in Red Bluff, Los Molinos and Corning. The Tehama County Library system is affiliated with the North State Cooperative Library System (NSCLS), which serves 13 Northern California Counties.

### **Municipal Water Districts**

Communities within Tehama County have heavily depended upon surface water as municipal water source. Historically chronic flooding along the Sacramento River inhibited both agricultural and urban development in Tehama County. The desire to control flooding, along with the promise

of large amounts of irrigation water, led to the 1935 authorization of the Central Valley Project (CVP).

Important elements of the CVP included the completion of Shasta Dam in 1945 and subsequent construction of the Tehama-Colusa and Corning Canals that distributed water through Tehama County and further to the south (Bureau of Reclamation, 2005). While two-thirds of Tehama County water needs were supplied by surface water in the 1970s, today it is only one-third (TCFCWCD, 1996). Of the total water used by Tehama County for all purposes during an "average" year, approximately 59 percent comes from groundwater sources. Local surface water sources supply 28 percent of the county's demand, CVP projects provide 10 percent, and surface water reuse accounts for about 3 percent.

Most of Tehama County's wells are located in a north-south swath along either side of the Sacramento River. Over 10,000 wells exist in the county with approximately 78 percent classified as having domestic usage. Twelve percent are used for irrigation, four percent for monitoring purposes, one percent for municipalities, and six percent for miscellaneous uses. Some of the main suppliers of water in Tehama County include: Anderson-Cottonwood Irrigation District (ACID), Corning Water District, Deer Creek Irrigation District, El Camino Irrigation District, Gerber-Las Flores Community Service District, Los Molinos Community Services District (LMCSD), Mineral Water Company, Proberta Water District, Rancho Tehama Association, and Rio Alto Water District (RAWD).

#### Anderson-Cottonwood Irrigation District (ACID)

ACID diverts water from the Sacramento River in Redding, California, primarily from a gravity diversion in the river at the seasonal ACID Diversion Dam in Redding. In addition, ACID operates a pump station on the river approximately 4 miles downstream to supply a lateral canal. ACID's distribution system includes approximately 35 miles of Main Canal, about 98 percent of which is unlined. The Main Canal flows through six inverted siphons to cross streams, such as Clear Creek, and three flume sections across smaller streams and lowland areas.

ACID holds a water right, under pre-1914 postings, to divert water from the natural flow of the Sacramento River. The ACID surface water supply entitlement provides for a maximum total of 125,000 ac-ft/yr during the period April 1 through October 31 of each year.

#### Rio Alto Water District (RAWD)

RAWD provides domestic water and wastewater services to the community of Lake California in Cottonwood, CA. RAWD maintains approximately 25 miles of active water distribution and transmission pipes and currently serves 1,275 residences. RAWD's source of potable water is 100% groundwater.

## Discussion

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Fire protection?

☐
☐
☐
☒

Police protection?

Schools?

Parks?

Other Public Facilities?

### Fire protection?

CAL FIRE provides this region with fire protection. The replacement of the Baker FS will enhance these services and will not create a need for additional fire protection resulting in new facilities that would create adverse environmental impacts. No impacts would occur as a result of the proposed project.

### Police protection?

The Tehama County Sheriff's Department provides police protection services to the area. The office is located approximately 21 miles east of the project site at 22840 Antelope Boulevard in Red Bluff. CAL FIRE personnel are onsite seasonally and provide their own security protection measures working closely with law enforcement during the fire season. There have been instances where the fire station has been broken into during the off season when personnel are not onsite. However, the replacement project will not result in an increase in police protection and steps have been taken to continue cooperation with law enforcement.

The proposed project will not require the need for additional police protection that would result in new facilities that would cause environmental impacts. No impacts would occur.

### Schools?

The Cottonwood Union School District serves the proposed project area. The nearest schools (Cottonwood Creek Charter School, and North and West Cottonwood Schools) are located approximately 10 miles to the northeast in the town of Cottonwood. The proposed project replaces an existing facility and will not result in additional staff. The project will not require new or altered schools or related facilities. No impact would occur.

### Parks?

The proposed project will not create additional demand on any nearby parks. The replacement of the existing Baker FS will not add additional employees that will require new or altered park facilities. No impact would occur.

### Libraries and other public facilities?

The Baker FS replacement project will not create additional demand for public facilities within the area. The project will replace an existing use and will not add additional population to the area. No impact would occur.

## RECREATION

### Environmental Setting

The Tehama County Parks and Recreation Department (TCPRD) has the primary responsibility for providing and maintaining recreation facilities and services within the General Plan Planning Area. TCPRD owns and maintains nine parks and two public access areas, all of which are maintained by County Parks and Recreation staff.

The proposed project is situated in an agricultural area within a valley. The nearest county recreational facilities are Antelope Park (approximately 20 miles southeast) and Ridgeway Park (approximately 22 miles southeast). Antelope Park has a children's playground, bike trails, picnic areas, and two tennis courts. Ridgeway Park has a recreation hall, basketball and volleyball courts, library, kitchen facilities, dining area, children's play equipment, open sports field, baseball field, horse arena, and a motor cross track.

Other recreational areas include Lassen National Park, William B. Ide Adobe State Historic Park, and Sacramento River Bend Area. These areas offer several recreational opportunities including snowshoeing, hiking, climbing, camping, horseback riding, hunting, boating, and picnicking.

### Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project consists of demolition and replacement of an existing fire station. The new facility will have the same capacity and will not increase the current staffing levels. The proposed project will not add residential uses or other activities that will increase the use of existing neighborhood or regional parks or other recreational facilities. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. The proposed project is demolishing and replacing an existing fire station and will not add additional staff or residential uses that would increase population. No impact would occur.

## **TRANSPORTATION/TRAFFIC**

### **Environmental Setting**

#### **Existing Roadway Network**

The project will be developed on the existing site near the intersection of State Route 36 (SR 36) and Bowman Road, and regional access to the site is provided by those two roads. SR 36 links the site with Interstate 5 (I-5) in the City of Red Bluff east of the project, and SR 36 continues westerly to an intersection on US 101 in Humboldt County. Bowman Road continues northeasterly from the project site to an interchange on I-5 in the Cottonwood area of northern Tehama County.

**State Route 36 (SR 36)** is a two-lane conventional highway that originates in Humboldt County and extends easterly across Northern California to its eastern terminus on US 395 in Lassen County. In the area of the project the roadway generally features two 12-foot wide travel lanes and paved shoulders that vary in width but are typically 1-2 feet wide. The posted speed limit is 55 mph in the immediate area of the station. The most recent traffic volume data published by the California Department of Transportation<sup>2</sup> indicated that SR 36 carried an *Annual Average Daily Traffic (AADT)* volume of 540 to 600 vehicles per day (vpd) in the vicinity of Bowman Road. Trucks comprise 3% of the daily traffic in this area.

**Bowman Road** is designated an Arterial Road in the *Tehama County General Plan Circulation Map*. In the area of the project Bowman Road generally features two 12-foot wide travel lanes and paved shoulders that vary in width but are typically 1-2 feet wide. The posted speed limit is 55 mph in the immediate area of the station. No recent traffic volume records are available for Bowman Road in the vicinity of the project but the Tehama County General Plan Draft Environmental Impact Report (GP DEIR)<sup>3</sup> indicated that Bowman Road carried 217 vpd just east of Cottonwood Creek (i.e., a few miles east of the project) in 2006.

The Bowman Road / SR 36 intersection is a "tee" controlled by a stop sign on the Bowman Road approach. The intersection has been widened to accommodate the turning requirements of trucks, but no auxiliary turn lanes exist.

#### **Traffic Impact Analysis Methodology**

Various methods exist for characterizing the quality of traffic flow on rural roads. Quantitative Level of Service (LOS) analysis can be performed for roadway segments based on the methodologies contained in the *2010 Highway Capacity Manual (2010 HCM)* published by the Transportation Research Board. LOS analysis is used to identify the relative delay experienced by motorists traveling on two lane rural highways. A grading scale of LOS "A" to LOS "F" is used to describe the quality of traffic flow, with LOS A representing free-flowing conditions along

<sup>2</sup> [http://www.dot.ca.gov/trafficops/census/docs/2016\\_aadt\\_volumes.pdf](http://www.dot.ca.gov/trafficops/census/docs/2016_aadt_volumes.pdf)

<sup>3</sup> [http://www.tehamagp.com/documents/draft\\_environmental\\_impact\\_report\\_091908/MASTER%20GP%20EIR.pdf](http://www.tehamagp.com/documents/draft_environmental_impact_report_091908/MASTER%20GP%20EIR.pdf)



facilities with adequate passing opportunities and LOS F representing conditions where travel speeds are constrained by factors such as truck traffic, limited passing opportunities and roadway alignment.

### Current Operating Conditions

The SR 36 Transportation Concept Report<sup>3</sup> (SR 36 TCR) reports that SR 36 from the Shasta County line to Oak Knoll Road operates at Level of Service B. The GP DEIR reports that Bowman Road operates at LOS A. The Level of Service in both areas satisfies the General Plan goal of LOS C.

### Other Considerations

Safety issues on highways in rural areas are often related to factors such as the availability of adequate sight distance and the need for auxiliary lanes at rural intersections. The Caltrans *Highway Design Manual (HDM)*<sup>4</sup> and the American Association of State Highway and Transportation Officials (AASHTO) publication *Policy on Design of Geometric Design of Streets and Highways* guide assessment of these issues.

### Regulatory Background

The *Tehama County General Plan* was last updated by the Board of Supervisors on March 31, 2009 and includes policies that are applicable to circulation and transportation. **Policy CIR-1.1** notes that the county shall work to ensure that Levels of Service (LOS) and safety standards on county roadways and at intersections are maintained or enhanced when considering new development. Implementation Measure CIR-1.1a identifies applicable LOS standards for intersections and roadway segments and notes that LOS C or LOS D are acceptable. **Policy CIR-1.2** notes the requirements for analysis of new development, including consideration of Level of Service and safety.

The *Caltrans Route 36 Transportation Concept Report* outlines the states long term plan for improvements to this facility.

### Discussion

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Because the site occupancy will not change as a result of the project, the project will be unlikely to increase the volume of traffic on SR 36 or Bowman Road on a regular basis after construction is completed. The project may add traffic during construction and could add 10 to 20 trips to SR 36 and Bowman Road during typical commute hours. Because background traffic volumes are very low, this may represent up to a 33% increase from the current

estimated peak hour volume. However, the resulting traffic volumes would still be indicative of LOS A-B conditions on these two-lane rural roads. Impacts are less than significant.

b) Would the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

See discussion for item (a). The proposed project will generate some traffic during construction, but will not lower the current LOS A-B conditions. The proposed project will not increase vehicle trips during operations as the capacity of the facility will not change.

#### Cumulative Traffic Conditions

The extent to which the proposed project contributes to cumulative traffic impacts has been evaluated based on long term future traffic conditions for study area roads. Two data sources for long term forecasts were considered. First, the SR 36 TCR indicates that the daily traffic volume on the highway is expected to increase by a factor of about 110% over the TCR's twenty-year horizon. Extended into the future, this rate would imply that SR 36 could carry 1,000 to 1,200 vpd per day near Bowman Road.

The Tehama County Daily Traffic Model Report<sup>5</sup> indicates that daily traffic volumes on SR 36 west of Bowman Road might increase to 858 vpd, which is consistent with the TCR forecast and will continue the current LOS B conditions. However, Bowman Road east of SR 36 is expected to increase to 13,792 vpd and SR 36 east of Bowman Road is projected to increase to 14,818 vpd. These volumes are indicative of LOS E and LOS F respectively.

Because the SR 36 TCR was prepared in 2012 after the Tehama County General Plan EIR it can be reasoned that this document is a better indication of future traffic conditions in the vicinity of the SR 36/ Bowman Road intersection and that background cumulative conditions will continue to remain at levels that meet applicable minimum standards.

Because the proposed project does not increase the level of site activity and no appreciable change to site trip generation is expected, the project will not increase long term traffic volumes and the project's cumulative impact is not significant.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site appears to be within Zone D of the Auburn Municipal Airport (1.5 miles to the west). The Airport Land Use Compatibility Plan (February 26, 2014) Compatibility Zone D includes areas sometimes overflowed by aircraft arriving and departing the airport. The project will replace an existing fire station and there will not be an increase in operational vehicle trips as the project is not increasing capacity. No changes to air traffic patterns would occur. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The project will include a new access driveway onto Bowman Road. The existing access will remain and will be used for staging equipment and personnel during fire incidents. The new driveway will be roughly 150 feet farther from SR 36. Each access location will be gated. A maximum grade of 11% is expected on the new access route down into the site, and the driveway which will have a 40-foot long "throat." The approach will be widened with curb returns with radius of 25 feet. No left turn lane exists on Bowman Road at the site access today, and none is proposed at the new driveway. This new configuration will not create a significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The fire station is an operational facility and the reconfigured driveways will be designed according to applicable engineering standards for adequate ingress and egress in case of an emergency. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project will not conflict with public transportation programs, plans, or policies. The project will not result in alteration of any existing facilities nor interfere with construction of any future planning facilities that are intended to serve alternative modes of transportation. No impact would occur.

## **UTILITIES AND SERVICE SYSTEMS**

### **Environmental Setting**

The Cities of Corning and Red Bluff each operate domestic water distribution systems that serve the residents of these communities. The remainder of the county is served by small community water systems and individual wells. Over 10,000 wells exist in the county with approximately 78 percent classified as having domestic usage. Twelve percent are used for irrigation, four percent for monitoring purposes, one percent for municipalities, and six percent for miscellaneous uses. The majority of Tehama County's groundwater resources come from the Sacramento Valley groundwater basin. The Baker FS receives water from an existing well located on the project site.

### **Wastewater Treatment**

Two methods of wastewater treatment and disposal are utilized within Tehama County. The first consists of community collection and treatment systems with discharge into the Sacramento River. The second method is individual treatment at the site with return to the ground, using either septic/leach-field systems or seepage pits. These are known as onsite wastewater treatment systems (OWTS). The Baker FS is served by an OWTS.

Community wastewater disposal outside of these areas is handled primarily by septic tank and leach field systems or by seepage pits. Onsite wastewater systems are limited by soil conditions throughout the county. Percolation tests are required to test acceptability of soils for septic systems. Constraints upon the success of percolation tests include rocky soils, high water tables and extremely porous soil conditions.

### **Electrical Services**

Residents of the unincorporated regions of Tehama County obtain their electrical service from Pacific Gas and Electric (PG&E). PG&E owns and operates electricity infrastructure in the county and throughout Northern California that includes power lines, powerhouses, and substations. PG&E no longer owns all of its facilities, having sold some recently as a result of legislative deregulation. The Baker FS receives electricity from PG&E.

### **Natural Gas**

Pacific Gas and Electric Company (PG&E) provides natural gas to customers within the unincorporated portions of the Planning Area. The existing facilities in the Planning Area consist of 4½-inch to 16-inch pipelines delivering service to all residential, commercial, and industrial customers that are not served by private propane tanks. The Baker FS uses a propane tank that is located onsite.

### **Cable Television Service/Telephone Service**

There are several purveyors providing cable television and other cable related services (i.e., internet) to the county's Planning Area. Cable fibers are generally co-located and installed concurrently with other utility infrastructure. There are several purveyors (i.e., SBC, Comcast, etc.) providing telephone service to Tehama County.

## Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Baker FS is currently using an OWTS septic system and all wastewater is treated on-site. The new station will include a new septic system and leach field. The proposed wastewater system will be reviewed and approved by Tehama County's Environmental Health Department. The permitting process requires percolation testing in order to ensure that the soil is capable of absorbing the waste. In addition, the new septic system will adhere to the SCRCB and San Diego RWQCB OWTS Policy. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in item (a), the proposed project includes the replacement of the site's existing sewer system and leach field. The new septic system will be constructed within the project site and will replace the current septic system. The current facility receives water from a well onsite and the new fire station will continue to use a well for potable water.

No other new water or wastewater treatment facilities will be constructed or expanded. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project includes the installation of a new storm water drainage system. The new storm water drainage system will disturb soils on-site. As required under the Clean Water Act,

a SWPPP will be prepared to ensure that all applicable BMPs are implemented and to minimize the movement of sediment (see **Hydrology and Water Quality**). Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project will continue to receive water supply from an onsite well. A new water tank for fire suppression will be constructed onsite and filled, but additional entitlements will not be required as the proposed project will not increase capacity. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the project result in a determination by the wastewater treatment provider that 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As indicated in item (a) and (b), the project will replace the existing septic system on-site. The new septic system will be subject to all applicable county and state requirements. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Solid waste management in Tehama County includes one landfill, several transfer stations, and an extensive waste stream diversion program including recycling and composting programs. The Tehama County/Red Bluff Sanitary Landfill provides extensive services for waste diversion and offers recycling services. The county achieves additional landfill diversion through salvage operations at the landfill such as appliances, scrap metal, and construction and demolition debris.

No changes in operations will occur as a result of the new facility and the landfill has capacity to accept operational and demolition disposal. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Waste generated by the proposed project will remain at the same level as no change in operations is being proposed. CAL FIRE will comply with statutes and regulations related to solid waste. Please see **Hazards and Hazardous Materials** related to disposal of hazardous waste. No impact would occur.

## WILDFIRE

### Environmental Setting

The project lies within an area that contains oak woodland intermixed with foothill pines within a CAL FIRE very high fire hazard State Responsibility Area (SRA) in Tulare County. The State Responsibility Area (SRA) is the land where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA is comprised of over 31 million acres across the State and does not include lands within incorporated city boundaries or in federal ownership. CAL FIRE is responsible for protecting approximately 574,100 acres in Tulare County.

### Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed Baker fire station replacement project is located within a very high fire hazard severity zone. Cal Fire is responsible for fire suppression in this area and is therefore located within the fire hazard zone to respond to fire incidents and assist with emergency situations. The project would be beneficial to fire suppression services. No impact would occur as a result of the fire station replacement.



b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project is proposing to replace an existing fire station that lies within Cal Fire's state responsibility area that is classified as a very high fire hazard area. The project site is relatively flat with surrounding rolling hills. The fire station serves the surrounding SRA and would not have an impact with regard to increasing pollutant concentrations as the fire station supports the fire suppression efforts.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The proposed project replaces an existing fire station that provides fire suppression services in the surrounding area within Tulare County. All utilities are installed within the project site and will be upgraded to assist Cal Fire in carrying out fire incident response. No impacts would occur.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project replaces an existing fire station that is within a very high fire hazard state responsibility area. The fire station is located within this area to provide fire suppression activities to prevent significant loss of vegetation, structures, and life. The project would not have an impact.

## MANDATORY FINDINGS OF SIGNIFICANCE

### Discussion

a) Would the project 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, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

With mitigation measures described in this initial study, the proposed project will not have a significant impact on fish and wildlife species or their habitat or eliminate important examples of major periods of California history or prehistory.

b) Would the project 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.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A search of the CEQAnet Database did not identify any current or proposed projects except for the following:

**Table 9. Current and Proposed Projects in the Project Area**

Project Name	Type of Project	Location
Los Molinos Safe Routes to School	Road Improvement	Various
Jellys Ferry Bridge Replacement	Bridge Replacement	Sacramento River and Jellys Ferry Road within northern Tehama County.
Bicycle, Pedestrian, and Trails	Non-Motorized Transportation Plan	Various locations throughout the county

The project area is rural in nature and the majority of uses surrounding the project site are agricultural in nature. The projects listed, combined with the fire station replacement, would not create significant incremental effects.

None of the current or recent prior projects are located within the vicinity of the proposed project. Environmental factors that have been identified as potentially significant including Biological Resources, Cultural Resources, and Hazards and Hazardous Materials are limited to the project site and will not contribute substantially to cumulative effects. Impacts are short-term in nature and limited to the duration of construction-related activities and would not contribute to a permanent impact with regard to cumulative impacts.

Other environmental factors that have a potential to contribute to cumulative effects are air quality and greenhouse gases. Construction-related impacts will not exceed significance thresholds and long-term operational impacts would not change the amount of operational emissions over current conditions because the proposed project is replacing an existing facility with the same operational capacity within the existing air basin.

Implementation of mitigation measures listed in this initial study would reduce potentially adverse impacts to a less than significant level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Direct and indirect impacts to human beings would be less than significant with the implementation measures listed in this initial study.

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## **BIBLIOGRAPHY**

California Department of Forestry and Fire Protection

2018 An Archaeological Survey Report for the CAL FIRE Baker Forest Fire Station Replacement Project. July 10, 2018.

California Department of Conservation

1991 Maps. Available at: <https://maps.conservation.ca.gov/>

2016 California Geological Survey letter.

[CalEPA] California Environmental Protection Agency

2018 Cortese List. Available at: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/>.

California Geological Survey

2016 Geological hazards letter

[DTSC] California Department of Toxic Substances Control

Envirostar Database. Available at:

<https://www.envirostor.dtsc.ca.gov/public/>

[Caltrans] California Department of Transportation

2018 California Scenic Highway Program, Tehama County. Available at:

[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm)

CDM California Department of Water Resources, Northern District

2003 Tehama County Flood Control and Water Conservation District Water Inventory and Analysis, September 2003.

[CDFW] California Department of Fish and Wildlife

2018 Query

[CEQAnet] CEQAnet Database

2018 Query Database. Available at: <http://www.ceqanet.ca.gov/>.

CH2MHILL

2002 Cottonwood Creek Watershed Assessment

2005 Cottonwood Creek Strategic Watershed Plan. December 2005.

GeoCon Consultants, Inc.

2018 Asbestos, Lead-Containing Paint, and Universal Waste Survey Report

Google Earth

2013 Google Earth (Version 7.1.5.1557). Tehama County, CA: Google Inc. (2013). Available at: [www.googleearth.com](http://www.googleearth.com).

KD Anderson & Associates, Inc.

2018 Air Quality Analysis

2018 Traffic Assessment

SHN Engineers & Geologists

2016 Phase I Environmental Site Assessment

Tehama County Flood Control and Water Conservation District

2003 Water Inventory and Analysis

Tehama County General Plan

2018 <http://www.co.tehama.ca.us/gov-departments/planning>

2018 Zoning Ordinance. Available at: <http://www.co.tehama.ca.us/zoning-information>

2017 United States Department of Agriculture Natural Resources Conservation Service  
Custom Soil Resource Report for Tehama County, California. November 15, 2017.

[SWRCB] State Water Resources Control Board

2010 Storm Water Program, 2009-0009-DWQ Construction General Permit, Effective July 1, 2010. Available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml).

2012 Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater  
Treatment Systems (OWTS Policy). Available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/owts/index.html](http://www.waterboards.ca.gov/water_issues/programs/owts/index.html)

2018 GEOTRACKER Database. Available at: <https://geotracker.waterboards.ca.gov/>. Accessed July 2018.