

# INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

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California Environmental Quality Act (CEQA)

## PROJECT INFORMATION

1. Project Title: Dudley and Judith Clark Tentative Parcel Map (TPM18-0002)
2. Lead Agency Name and Address: Butte County – Department of Development Services  
Planning Division  
7 County Center Drive  
Oroville, CA 95965
3. Contact Person and Phone Number: Rowland Hickel, Senior Planner  
530.552.3684  
[rhickel@buttecounty.net](mailto:rhickel@buttecounty.net)
4. Project Location: The project site encompasses 40.15 acres located at 5000 Will T Road, 3,300 feet west from Meridian Road, and 4 miles north of the City of Chico. Township 23N, Range 1W, Section 13; MDB&M. APN: 047-100-202. Latitude 39.854361, Longitude -121.92999.
5. Project Sponsor's Name and Address: Dudley and Judith Clark  
5000 Will T Road  
Chico, CA 95973
6. General Plan Designation: Agriculture (AG)
7. Zoning: AG-20 (Agriculture – 20-acre minimum)
8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The project consists of subdividing a 40.15 acre property situated in the AG-20 (Agriculture – 20-acre minimum) zone into two parcels of 20.08 acres (Parcel 1) and 20.07 acres (Parcel 2). Wastewater disposal for each parcel would be provided by an on-site individual septic system. Domestic water for each parcel would be provided by a well. Future development areas (FDA) are proposed for each parcel: a 2.0 acre FDA is proposed on the southern portion of Parcel 1, adjacent to the existing residence, and a 1.8 acre FDA on the northern portion of Parcel 2. The designated development areas will accommodate all future improvements (i.e., residential dwelling units, accessory structures, agricultural buildings, septic system, well, etc.). Access to Parcel 1 is provided by an existing driveway off Will T Road, a private road. Access to Parcel 2 would be provided by a driveway off Meridian Meadows Lane, a private road. Butte County Improvement Standards require improvements to Meridian Meadows Lane to convert the existing 10-12 feet wide driveway into the RS-8-LDII road improvement standard. The RS-8-LDII standard includes a 20 feet wide travel lane, two, 2 feet wide shoulders, and an Class 2 aggregate road base. Improvements would be made from Will T Road to the end of the road (1,330 feet). Road improvements also include construction of a 50 feet radius cul-de-sac at the end of Meridian Meadows Lane.

Road Improvement Exception Request

The applicant is requesting an exception from County road improvements, pursuant to Butte County Code section 20-4, Exceptions to Design Requirements, and, Butte County Code 24-193(d), Exceptions to Butte County Improvement Standards. The request proposes to delete road improvements to Meridian Meadows Lane, leaving the road to its current condition (i.e., 10-12 feet wide, aggregate road base). The Butte County Public Works Department is in support of deleting road improvements, provided an alternative condition be considered that Meridian Meadows Lane be improved to the State’s Fire Safe Regulations, and that Butte County Fire/CalFire approve the modified road standard.

Unusual Circumstances Review

The applicant is requesting approval of an Unusual Circumstances Review, pursuant to the Exceptions to Agricultural Buffer Setback in Butte County Code section 24-84. The Unusual Circumstances Review proposes to reduce the required 300-foot Agricultural Buffer setback for the future development areas on both parcels. The FDA on Parcel 2 is setback 100 feet from the north, east and west property lines. The FDA on Parcel 1 is setback 170 feet from the south property line, 250 feet from the west property line, and 100 feet from the east property line. A request for an Unusual Circumstances Review application was filed for the FDA on Parcel 2. The Butte County Agricultural Commissioner’s Office is recommending approval of the proposed FDA because existing environmental constraints (i.e., vernal pools and seasonal swales) on Parcel 2, and because the FDA is situated 300 feet from an orchard located on an adjacent parcel to the west, that the proposed FDAs are the preferred building areas.

9. Surrounding Land Uses and Setting: (Briefly describe the project’s surroundings)

The project area primarily consists of ranchettes that range in size from 5 to 40 acres. Ranchettes include single-family residential and agricultural uses. Agricultural uses consists of dryland pastures used for animal grazing. A 2.5 acre almond orchard is located directly west of the project site. A 530-acre undeveloped pasture is located north of the project site. Will T Road, a private road, borders the south property line. A private residential driveway (Meridian Meadows Lane) serving two existing parcels borders the southern portion of the west property line.

Direction	General Plan Designation	Zoning	Existing Land Use(s)
North	Agriculture	AG-160	Agriculture (Dryland Pasture)
South	Agriculture	AG-20	Agriculture (Dryland Pasture)/Residential
East	Agriculture	AG-20	Agriculture (Dryland Pasture)/Residential
West	Agriculture	AG-20	Agriculture (Orchard/Pasture)/Residential

The project site and surrounding area is zoned AG-20. The purpose of the AG zone is to support, protect, and maintain a viable, long- term agricultural sector in Butte County. Standards for the AG zone maintain the vitality of the agricultural sector by retaining parcel sizes necessary to sustain viable agricultural operations, protecting agricultural practices and activities by minimizing land-use conflicts, and protecting agricultural resources by regulating land uses and development intensities in agricultural areas. Permitted uses include crop cultivation, animal grazing, stock ponds, and agricultural processing. More intensive agricultural activities, such as animal processing, dairies, hog farms, stables, forestry and logging, and mining and oil extraction, are permitted with the approval of a Conditional Use Permit. One (1) single-family home and one (1) second unit and accessory dwelling unit is permitted on each legally established parcel within the AG zone, and residential uses for agricultural employees are permitted as an accessory use within the AG zone. The minimum permitted parcel sizes in the AG zone ranges from twenty (20) acres to one hundred sixty (160) acres. The minimum parcel size for the subject parcel is twenty (20) acres.

The project site is comprised of level topography in the valley region, situated approximately 4 miles north of the city of Chico, and approximately 4,000 feet east from State Highway 99. The project site is developed with an existing single-family residence and accessory structures including an on-site septic system and well, which

are all situated on the southern half of the property. The remaining areas of the property are comprised of annual grasslands with seasonal swales and vernal pools that transect the property from the northeast to the southwest. No agricultural uses currently occur on the project site; however, the site has been historically used for cattle grazing.

The parcel fronts on Will T Road, a privately-maintained roadway. Meridian Meadows Lane, a private driveway, intersects Will T Road, and provides access to a single-family residence located on the adjacent parcel to the west. Will T Road is accessed off Meridian Road, a County-maintained road. Will T Road is approximately 20 feet wide with an aggregate road base. Meridian Meadows Lane is approximately 10-12 feet wide with an aggregate road base. Will T Road and Meridian Meadows Lane are dead-end roads. The length of Will T Road from Meridian Road to Meridian Meadows Lane is 3,310 feet. The length of Meridian Meadow Lane from Will T Road to proposed Parcel 2 is 1,330 feet.

Annual grassland is the only vegetation community observed within the biological study area. Common species that were observed in the annual grasslands include medusahead (*Elymus caput-medusae*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Festuca perennis*). This habitat type provides foraging ground for a variety of wildlife species and breeding habitat for several terrestrial reptiles, ground nesting birds, and fossorial mammals.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)
  - Butte County Department Development Services: Building Permits (Future Construction)
  - Butte County Public Works Department: Road and Grading Improvement Plans
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

See Discussion 1.18

### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

<input type="checkbox"/>	Aesthetics	<input checked="" type="checkbox"/>	Agriculture and Forest Resources	<input checked="" 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 checked="" type="checkbox"/>	Greenhouse Gas Emissions	<input 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 type="checkbox"/>	Transportation	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input checked="" type="checkbox"/>	Mandatory Findings of Significance
		<input type="checkbox"/>	None	<input type="checkbox"/>	None with Mitigation Incorporated

## DETERMINATION (To be completed by the Lead Agency)

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** will be prepared.
- I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the 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 **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Signature

Date

Rowland Hickel

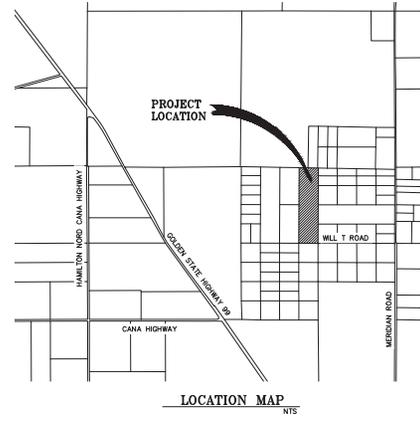
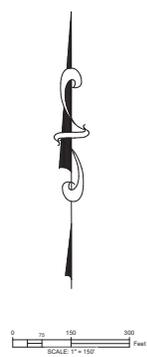
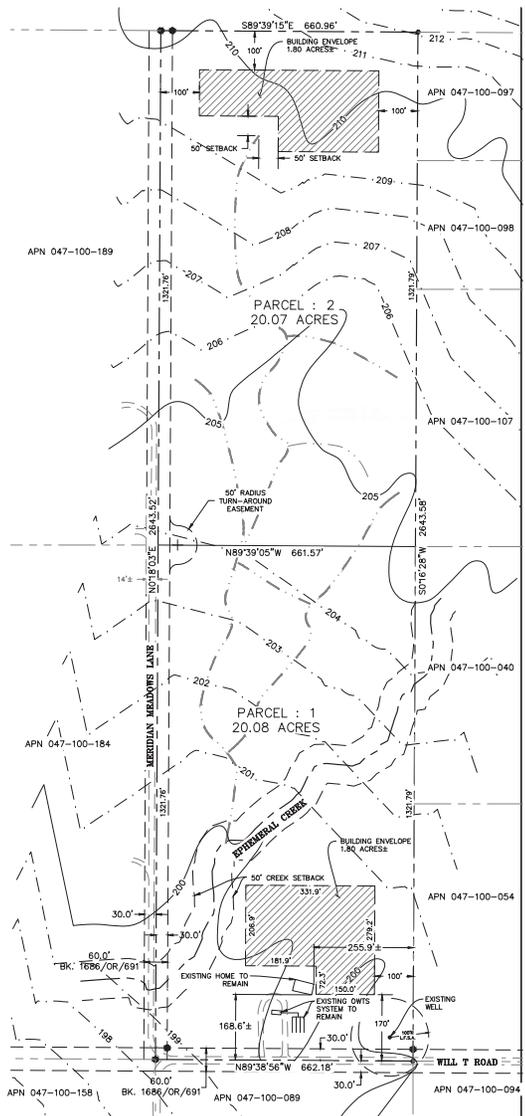
Senior Planner

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Printed Name

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Title



- SUBDIVISION NOTES:**
- 1) PARCEL MAP INFORMATION:  
 TOTAL ACREAGE (TO CL): 40.15  
 NET ACREAGE: 37.89  
 TOTAL NUMBER OF PARCELS: 2  
 UNITS PER GROSS ACRE: 0.03  
 AVERAGE PARCEL SIZE: 874,469 SF
  - 2) THE PARCEL MAP LIES IN FLOOD ZONE "X" AS SHOWN ON FIRM MAP NUMBER 0600700310E DATED JANUARY 6, 2011.

- OWNER AND SUBDIVIDER:**  
 DUDLEY & JUDITH CLARK FAMILY TRUST  
 5000 WILL T ROAD  
 CHICO, CA 95973  
 (831) 325-1874
- LAND USE:**  
 PRESENT: AG/SINGLE FAMILY RESIDENTIAL  
 FUTURE: AG/SINGLE FAMILY RESIDENTIAL
- ZONING:**  
 PRESENT: AG-20  
 FUTURE: AG-20
- ENGINEER:**  
 W. GILBERT ENGINEERING  
 WESLEY E. GILBERT, R.C.E. 31689  
 140 YELLOWSTONE DRIVE, SUITE 110  
 CHICO, CALIFORNIA 95973  
 (530) 809-1315
- UTILITIES:**  
 SANITARY SEWER: ON-SITE SEPTIC SYSTEM  
 WATER: INDIVIDUAL PRIVATE WELLS  
 POWER: PACIFIC GAS & ELECTRIC  
 COMMUNICATIONS: AT&T  
 CABLE TV: COMCAST  
 STORM DRAIN: PRIVATE
- ASSESSOR'S PARCEL NUMBER:**  
 047-100-202 (FORMERLY 081, 083-085)

- LEGEND:**
- 201— EXISTING GROUND CONTOUR (ASSUMED DATUM)
  - PARCEL MAP BOUNDARY
  - - - PROPOSED LOT LINE
  - - - EXISTING EDGE OF PAVEMENT
  - EXISTING TREE TO REMAIN
  - EXISTING UTILITY POLE
  - EXISTING GUY WIRE

**RECORD REFERENCES:**  
 R1 - RECORD OF SURVEY BOOK 150, AT PAGE 39

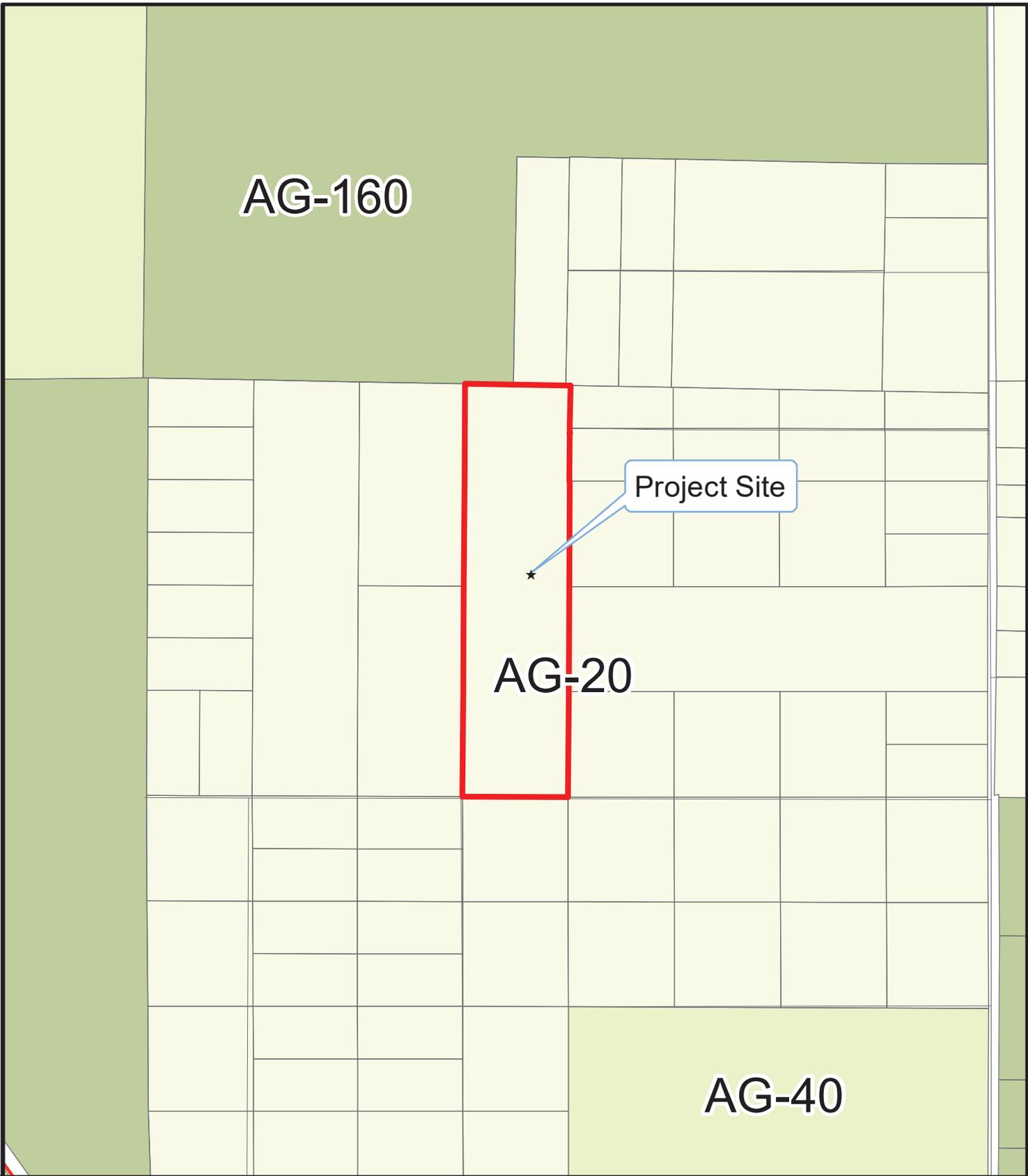
**DESIGN MODIFICATIONS:**  
 1) NO DESIGN MODIFICATIONS ARE BEING REQUESTED.

THIS TENTATIVE SUBDIVISION MAP WAS PREPARED BY ME OR UNDER MY DIRECTION.  
 BY: *Wesley E. Gilbert* 3/20/19  
 WESLEY E. GILBERT  
 R.C.E. 31689  
 EXPIRES: 12/31/20



**TENTATIVE PARCEL MAP**  
 for  
 DUDLEY & JUDITH CLARK FAMILY TRUST  
 BEING A DIVISION OF THE EAST HALF OF THE  
 EAST HALF OF THE NORTHWEST 1/4 OF SECTION 13,  
 T. 23 N., R. 1 W., M.D.B. & M.  
 COUNTY OF BUTTE  
 STATE OF CALIFORNIA

W. GILBERT ENGINEERING  
 140 YELLOWSTONE DRIVE, SUITE 110  
 CHICO, CALIFORNIA 95973  
 (530) 809-1315



**Butte County Zone Districts**



Supervisory District #2

**Applicant/Owner:** Dudley and Judith Clark

**Zoning:** Agriculture-20 acre minimum

**Request:** Tentative Parcel Map

**Assessor Parcel No:** 047-100-202

**File:** TPM18-0002



Photo 1 – View east along Will T Road (Private Road).



Photo 2 – View west along Will T Road (Private Road).



Photo 3 – View north across Parcel 2.



Photo 4 – View south across Parcel 1.



Photo 5 – View south along Meridian Meadow Lane (Private Driveway).



Photo 6 – Will T Road and Meridian Meadows Lane Intersection.



Photo 7 – Existing residence on Parcel 1.



Photo 8 – View northeast across Parcel 1 along seasonal waterway.

## EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
  - a) Earlier Analysis Used. Identify and state where they are available for review.
  - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

# 1.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>I. Aesthetics.</b>				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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"/>

## Discussion

### a) Have a substantial adverse effect on a scenic vista?

**Less than significant impact.** The predominate views from the project site and surrounding area are the Sierra Nevada and Cascade Mountain Ranges to the east and north. Due to the level topography of the project area, residential structures and landscaping features on the project site may partially interfere with views of the mountain ranges from residences located immediately west of the project site. Future development on the resultant parcels may include permitted and conditionally-permitted uses allowed within the AG zoning designation. Permitted development on the resultant parcels are consistent with the existing visual characteristics of the surrounding area. In addition, the proposed large parcel sizes (20-acres), as well as the visual compatibility of permitted uses with the surrounding area, will not substantially interfere with the scenic views, or otherwise have a demonstrable negative aesthetic effect.

### b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

**No impact.** No scenic resources have been identified on the project site. The project site is also not located adjacent to a state-designated or county-designated scenic highway. Therefore, future development would not damage or degrade scenic resources within a state scenic highway.

- c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

**Less than significant impact.** The nearest publicly accessible areas to the project site is State Highway 99, located approximately 4,000 feet west of the project site. Permitted development include uses and densities that are similar to the surrounding area, and would not result in negatively altering the character or visual quality of the project site and surrounding area.

- d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

**Less than significant impact.** No new outdoor lighting is proposed. However, outdoor lighting for safety and security could potentially be added in the future on the resultant parcels. Development of these parcels would be similar with the rural character already established in the surrounding areas. Any new outdoor lighting in residential zones are subject to [Article 14, Section 24-67 of Butte County Zoning Code](#), which requires that all outdoor lighting in residential areas be located, adequately shielded, and directed such that no direct light falls outside the property perimeter, or into the public right-of-way. With implementation of outdoor lighting regulations, the proposed project would not create new sources of substantial lighting or glare that would generate a significant impact.

## 1.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>II. Agriculture and Forest Resources.</b>				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</p> <p>In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Regulatory Setting

### Williamson Act/Land Conservation Act (LCA) Contracts

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents. The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 9-year term that is automatically renewed each year, unless the property owner or county requests a non-renewal or the contract is cancelled.

### Farmland Mapping and Monitoring Program

The California Farmland Mapping and Monitoring Program (FMMP) develops statistical data for analyzing impacts to California's agricultural resources. The FMMP program characterizes "Prime Farmland" as land with the best combination of physical and chemical characteristics that are able to sustain long-term production of agricultural crops. "Farmland of Statewide Importance" is characterized as land with a good combination of physical and chemical characteristics for agricultural production, but with less ability to store soil moisture than prime farmland. "Unique Farmland" is used for production of the state's major crops on soils not qualifying as prime farmland or of statewide importance. The FMMP also identifies "Grazing Land", "Urban and Built-up Land", "Other Land", and "Water" that is not included in any other mapping category.

### California Public Resources Code Section 4526

"Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

### California Public Resources Code Section 12220(g)

"Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

### Butte County Right to Farm Ordinance

Butte County has adopted a Right to Farm Ordinance (Butte County Code Chapter 35, Protection of Agricultural Land). This ordinance protects properly conducted agricultural operations in the unincorporated County against nuisance lawsuits, and requires annual disclosure to all property owners within the County of the right to farm. In addition, the ordinance requires disclosure to buyers of real property and as part of development approvals. While the County Right-to-Farm Ordinance specifically applies to commercial agricultural operations within the unincorporated area, all commercial agricultural operations that comply with agricultural standards currently are protected from nuisance claims under State law (Section 3482.5 of the California Civil Code), whether located within cities or unincorporated areas.

### Agricultural Buffer Policy

Pursuant to Policy AG-P5.3 from the General Plan 2030, Butte County has adopted Article 17 of the Butte County Zoning Ordinance which requires a 300-foot buffer between lands zoned agriculture and new residential development. This ordinance applies to parcels where residential structures are to be developed in the following areas of the county: (1) all lands zoned Agriculture; (2) in other zones within 300 feet of the boundary of Agriculture zones; (3) areas inside and within 300 feet of sphere of influence boundaries for incorporated cities, where the boundary abuts parcels zoned Agriculture; and, (4) areas within 300 feet of a Williamson Act Contract. Exceptions to the 300-foot agricultural buffer setback requirement may be requested by the project applicant through an Unusual Circumstances Review application process.

### Agricultural/Residential Buffer Implementation Guidelines

The existing Butte County Zoning Ordinance requires a 300-foot buffer between agricultural and non-agricultural uses. To implement this requirement, and to provide guidance regarding requests for a determination of unusual circumstances, Butte County has prepared Agricultural/Residential Buffer Implementation Guidelines. The buffer must physically separate agricultural and nonagricultural uses and help to minimize potential conflicts. The County may make a determination of unusual circumstances based on criteria outlined in the Guidelines, in which case the buffer may take other forms or be of a lesser distance.

### Residential Setback from Orchards and Vineyards in Residential Zones

The Butte County Zoning Ordinance Section 24-56.1 requires a minimum 25-foot setback to be established between new residential development and existing, active orchards and vineyards that are located in Residential zones. Proposed land divisions adjacent to an active orchard or vineyard shall be reviewed by the Agricultural

Commissioner, in consultation with the Development Services Department, to determine an appropriate setback width, which shall be publicly noticed and reviewed by the hearing body.

## Discussion

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

**No impact.** The California Farmland Mapping and Monitoring Program designates the project parcel as "Grazing Land", which contains land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. Only lands categorized as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (if adopted by the county) are designated as Important Farmland. The proposed project is not located on lands designated as Important Farmland in the Farmland Mapping and Monitoring Program, and would not result in the conversion of Important Farmland to a non-agricultural use.

- b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

**Less than significant impact.** The project site is not under a Williamson Act Contract. And, there are no parcels under a Williamson Act Contract within 300 feet of the project site.

The project site and surrounding area is zoned Agriculture. Therefore, future residential development on the resultant parcels must be setback 300 feet from all property lines adjacent to Agriculture zoned property. However, due to the size and configuration of the resultant parcels, application of the full 300 feet setback from all property lines would render the resultant parcels undevelopable.

The applicant is proposing an Unusual Circumstances Review determination, pursuant to the Exceptions to Agricultural Buffer Setback in Butte County Code section 24-84. The Unusual Circumstances Review proposes to reduce the required 300-foot Agricultural Buffer setback for the proposed future development areas on both parcels. The development area on Parcel 2 is setback 100 feet from the north, east and west property lines. The development area on Parcel 1 is setback 170 feet from the south property line, 250 feet from the west property line, and 100 feet from the east property line. A request for an Unusual Circumstances Review was filed for the development area on Parcel 2. The Butte County Agricultural Commissioner's Office is recommending approval of the proposed area noting that due to the environmental constraints (i.e., vernal pools and seasonal swales) on Parcel 2, and that the FDA is situated 300 feet from an orchard located on an adjacent parcel to the west, that the proposed development area is the preferred residential site. A final determination of the reduced Agricultural Buffer setback is subject to approval by the reviewing authority of the proposed project. As a condition of approval, the approved Agricultural Buffer setbacks shall be recorded on the Parcel Map or on an additional information sheet of the Parcel Map. Approval of the proposed Unusual Circumstances Review and implementation of conditions of approval in accordance County regulations, would ensure the proposed project would not conflict with surrounding agricultural uses.

- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

**No impact.** The project site and surrounding area is not classified as forestland, as defined in Public Resources Code Section 12220(g), or as timberland, as defined in Public Resources Code Section 4526. The project site is not zoned or designated for forest or timber resource uses.

d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

**No impact.** The project site is located in the valley region of Butte County and does not contain trees or timber resources classified as forestland, as defined in Public Resources Code Section 12220(g), or as timberland, as defined in Public Resources Code Section 4526. Therefore, the proposed project would not result in loss or conversion of forest land to a non-forest use.

e) **Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

**No impact.** The project site is designated as "Grazing Land" under the California Farmland Mapping and Monitoring Program. Lands within 300 feet of the project site are designated "Grazing Land and "Other". No prime, unique or farmland of statewide importance occurs on the project site, or in the immediate vicinity of the project site. Therefore, the project would not result in the conversion of Farmland to a non-agricultural use.

## 1.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>III. Air Quality.</b>				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is composed of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the Sacramento Valley Air Basin, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years, additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high pressure cell that deflects storms from the region.

In Butte County, winters are generally mild with daytime average temperatures in the low 50s°F and nighttime temperatures in the upper 30s°F. Temperatures range from an average January low of approximately 36°F to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between

October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the County. Periodic rainstorms contrast with occasional stagnant weather and thick ground or “tule” fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a “lid” over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution “hot spots” near emission sources. Carbon monoxide, nitrogen oxides, particulate matters and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM2.5) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NOx) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest (Butte County CEQA Air Quality Handbook 2014).

Air Quality Attainment Status

Local monitoring data from the BCAQMD is used to designate areas a nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The four designations are further defined as follows:

**Nonattainment** – assigned to areas where monitored pollutant concentrations consistently violate the standard in question.

**Maintenance** – assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.

**Attainment** – assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.

**Unclassified** – assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

**Table 1.3-1. Federal and State Attainment Status of Butte County**

POLLUTANT	STATE DESIGNATION	FEDERAL DESIGNATION
1-hour ozone	Nonattainment	-
8-hour ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10	Nonattainment	Attainment
24-Hour PM2.5	No Standard	Attainment
Annual PM10	Attainment	No Standard
Annual PM2.5	Nonattainment	Attainment

Source: Butte County AQMD, 2018

Sensitive Receptors

Sensitive receptors are frequently occupied locations where people who might be especially sensitive to air pollution are expected to live, work, or recreate. These types of receptors include residences, schools, churches, health care facilities, convalescent homes, and daycare centers. The project site is located in a rural area with residential uses on parcel sizes between 5 and 40 acres. Table 1.3-2 lists sensitive receptors that were identified in the project vicinity and the distances from the project site.

**Table 1.3-2. Sensitive Receptors in the Project Vicinity**

SENSITIVE RECEPTORS	DISTANCE FROM PROJECT SITE TO RECEPTOR
Residence (15085 Meridian Rd.)	221 feet east
Residence (4960 Jake Rd.)	525 feet east
Residence (4961 Jake Rd.)	490 feet east
Residence (15101 Meridian Meadows Ln.)	300 feet west
Residence (15041 Meridian Meadows Ln.)	390 feet west
Residence (4995 Starflower Ln.)	318 feet north
Residence (4985 Starflower Ln.)	267 feet northeast

Source: Butte County Geographical Information System/Google Earth imagery

Butte County Air Quality Management District

The Butte County Air Quality Management District (BCAQMD) is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the BCAQMD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. BCAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within Butte County. Analysis requirements for construction and operation-related pollutant emissions are contained in BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. Established with these guidelines are screening criteria to determine whether or not additional modeling for criteria air pollutants is necessary for a project. The CEQA Air Quality Handbook also contains thresholds of significance for construction-related and operation-related emissions: ROG, NOx and PM10. The screening criteria listed in Table 1.3-4 were created using CalEEMod version 2013.2.2 for the given land use types. To determine if a proposed project meets the screening criteria, the size and metric for the land use type (units or square footage) should be compared with that of the proposed project. If a project is less than the applicable screening criteria, then further quantification of criteria air pollutants is not necessary, and it may be assumed that the project would have a less than significant impact for criteria air pollutants. If a project exceeds the size provided by the screening criteria for a given land use type then additional modeling and quantification of criteria air pollutants should be performed (Butte County Air Quality Management District 2014).

Table 1.3-4. Screening Criteria for Criteria Air Pollutants

LAND USE TYPE	MAXIMUM SCREENING LEVELS FOR PROJECTS
Single-Family Residential	30 Units
Multi-Family (Low Rise) Residential	75 Units
Commercial	15,000 square feet
Educational	24,000 square feet
Industrial	59,000 square feet
Recreational	5,500 square feet
Retail	11,000 square feet

Source: Butte County AQMD, CEQA Air Quality Handbook, 2014

## Discussion

### a) Conflict with or obstruct implementation of the applicable air quality plan?

**Less than significant impact.** The applicable air quality plan for the project area is the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. In adopting this plan, BCAQMD assumes that growth within its jurisdiction will be in accordance with city and county general plans, for which air quality effects associated with build-out have been analyzed.

A project is deemed inconsistent with an air quality plan if it would result in population or employment growth that exceeds the growth estimates in the applicable air quality plan (i.e., generating emissions not accounted for in the applicable air quality plan emissions budget). Therefore, proposed projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rate included in the applicable air quality plan.

The proposed project could result in minor population growth in the County with build-out of the resultant parcels. However, the proposed development density is consistent with the established zoning, and population growth to the area has already been anticipated for under Butte County General Plan 2030. Additionally, the total number of single-family residential units generated by the project are below the maximum screening criteria established in Table 1.3-3. Therefore, the project is not anticipated to cause significant impacts to regional air quality, or otherwise conflict with the basin's air quality management plan, provided that best management practices for the control of fugitive dust during construction activities are employed.

### b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

**Less than significant impact with mitigation incorporated.** The proposed project has the potential to impact air quality primarily in two ways: (1) the project would generate mobile source emissions (i.e., added vehicle trips, energy use) associated with future development on the resultant parcels, and (2) construction activities associated with the development of the resultant parcels would generate fugitive dust (PM10) from grading activities, construction exhaust emissions (PM10, NOx), and evaporative emissions of reactive organic gases (ROG or VOC) from paving activities and architectural coatings.

Mobile source emissions are produced from motor vehicles, and include tailpipe and evaporative emissions. Energy use associated with future development also generate emission from heating and cooling systems, lighting, applicant, water use and wastewater. No development is proposed with this project; however, future development of the resultant parcels have the potential to generate these direct and indirect emissions. Emissions generated during at build-out of the resultant parcels are not expected to be substantial, and would not significantly violate existing air quality standards, because only a limited amount development would occur

over the project site. The limited amount of development to occur with the proposed project was compared to the screening criteria of Table 1.3-3, and deemed to have a less than significant impact to the environment.

Construction-related emissions are generally created throughout the course of project implementation and parcel development, and would originate from construction equipment exhaust, employee vehicle exhaust, dust from grading the land, exposed soil eroded by wind, and ROGs from architectural coating and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content. Despite this variability in the project and project site conditions, there are a number of feasible control measures that can be reasonably implemented to reduce construction-related emissions to a less than significant level. These measures as well as other common air pollution control measures are recommended in *Appendix C of BCAQMD's CEQA Handbook (2014)*, and are to be implemented as **Mitigation Measure AIR-1**, listed below.

c) **Expose sensitive receptors to substantial pollutant concentrations?**

**Less than significant impact with mitigation incorporated.** Sensitive receptors in the project area and their distances from the project site area contained Table 1.3-2. Based on the information provided in section b.), above, the proposed project would not result in the violation of any air quality standards or contribute substantially to an existing or projected air quality violation, except for potential fugitive dust emissions during construction activities. Implementation of **Mitigation Measure AIR-1** would reduce potential cumulative fugitive dust emission impacts to a less than significant level.

d) **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less than significant impact.** Future permitted uses on the resultant parcels would not create objectionable odors. However, future construction activities could include objectionable odors from tailpipe diesel emissions and from solvents in adhesives, paints, caulking materials, and new asphalt. Since odor impacts would be temporary and limited to the area adjacent to the construction operations, and because the project site is located in a rural area of the county, odors would not impact a substantial number of people for an extended period of time.

## Mitigation Measures

### Mitigation Measure AIR-1

The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations.

#### Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds

- All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.

- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted areas.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

#### Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project (see <http://www.arb.ca.gov/toxics/atcm/atcm.htm>).
- Stationary sources shall comply with applicable District rules and regulations.

#### Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200 and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Butte County Air Quality Management District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality Management District - (530) 332-9400 for any questions or concerns about dust from the project.

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased

watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.

Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to \$25,000 per violation.

**Plan Requirements:** The note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. This note shall also be placed on all building and site development plans.

**Timing:** Requirements of the condition shall be adhered to throughout all grading and construction periods.

**Monitoring:** The Butte County Department of Development Services and the Public Works Department shall ensure that the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Building inspectors shall spot check and shall ensure compliance on-site. Butte County Air Pollution Control District inspectors shall respond to nuisance complaints.

## 1.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IV. Biological Resources.</b>				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

### Biological Resource Assessment

Gallaway Enterprises prepared a Biological Resource Assessments (BRA) for the proposed project on December 2018. The BRAs were prepared for a 2.0 acre future development area on Parcel 1 and a 1.9 acre future development area on Parcel 2. The BRAs evaluated site conditions and the potential for rare and special-status species to occur in the development areas. The BRAs included a field survey conducted within the biological survey area (BSA) on November 20, 2018 to determine the presence of special-status species and their habitats. Sections of both assessments are included below. The full assessments are included in the Appendix.

### Vegetation Communities (Parcel 1)

Annual grassland is the dominant vegetation community within the BSA. The vast majority of the BSA had been mowed prior to the field visit. Common species that were observable in the annual grassland were medusahead (*Elymus caput-medusae*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Festuca perennis*). This habitat type provides foraging ground for a variety of wildlife species and breeding habitat for several terrestrial reptiles, ground nesting birds, and fossorial mammals. A few seasonal wetlands were observed within the BSA during the field visit. Seasonal wetlands are non-tidal depressional wetlands classified under the palustrine system. They tend to stay wet or ponded into late spring or early summer months and are typically dominated by generalist wetland plants and emergent wetland plants. The seasonal wetlands present within the BSA exhibited cracked soils, were shallow, and densely vegetated with perennial ryegrass and Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*). Aquatic wildlife species typically found in wetlands include a variety of invertebrates and amphibians.

#### Vegetation Communities (Parcel 2)

Annual grassland is the only vegetation community observed within the BSA. Common species that were observed in the annual grasslands were medusahead (*Elymus caput-medusae*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Festuca perennis*). This habitat type provides foraging ground for a variety of wildlife species and breeding habitat for several terrestrial reptiles, ground nesting birds, and fossorial mammals.

#### Endangered, Threatened and Rare Plants (Parcel 1)

No suitable habitat for special-status plant species occurs within the BSA. The wetlands observed on the site are seasonal, dominated by dense perennial rye-grass and did not contain vernal pool endemic species, indicating a lack of vernal pool hydrology needed for special-status plant species that occur in vernal pools. Also, there was a lack of suitable soils within the BSA for many of the special status plant species. There were no endangered, threatened or rare plants observed within the BSA during the field visit.

#### Endangered, Threatened and Rare Plants (Parcel 2)

The BSA lacks suitable habitat for all special status plant species listed in the BRA. There were no endangered, threatened or rare plants observed within the BSA.

#### Endangered, Threatened and Special Status Wildlife (Parcel 1)

Suitable habitat was identified for several avian species protected under the Migratory Bird Treaty Act (MBTA), including the western meadowlark. The BSA provides ample foraging habitat, but no nesting habitat, for raptor species such as the state listed Swainson's hawk. The shallow wetland features present within the BSA provide marginal habitat for vernal pool fairy shrimp, however, due to their shallow depth, these features lack suitable hydrology for vernal pool tadpole shrimp and vernal pool conservancy shrimp.

#### Endangered, Threatened and Special Status Wildlife (Parcel 2)

Suitable habitat was identified for several avian species protected under the MBTA, including the western meadowlark. The BSA provides ample foraging habitat, but no nesting habitat, for raptor species such as the state listed Swainson's hawk.

## Discussion

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

**Less than significant impact with mitigation incorporated.** No special-status plants or wildlife species were found on the proposed development area of Parcel 1 and Parcel 2. The wetlands observed on Parcel 1 are seasonal, dominated by dense perennial rye-grass and did not contain vernal pool endemic species, which indicated a lack of vernal pool hydrology needed to support special-status species plants. Nevertheless, due to the presence of numerous vernal pool fairy shrimp in close proximity to the project site, wetland features

contain moderate habitat potential, and should be avoided to prevent potential impacts. **Mitigation Measure BIO-1** includes provisions that at the time of development on Parcel 1, the project proponent will identify wetland features. The measure ensures that wetland habitat and appropriate buffers are established to avoid potential impacts. **Mitigation Measure BIO-2** includes provisions to install temporary fencing around no disturbance areas to avoid potential impacts to sensitive habitat areas during construction activities.

Both parcels do contain suitable habitat for several avian species protected under the MBTA, including the western meadowlark. To avoid potential impacts to avian species protected under the MBTA and California Fish and Game Code (CFGF), **Mitigation Measure BIO-3** is recommended prior to development of Parcel 1 and Parcel 2. Adherence to recommended mitigation measures would reduce potential impacts to a less than significant level.

b) **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?**

**No impact.** The project site is not identified as containing a Sensitive Natural Community (SNC). One SNC has been mapped as overlapping with the BSA of Parcel 1, the Northern Hardpan Vernal Pool SNC. Although this mapped SNC is depicted as overlapping into the BSA, there is no characteristic northern hardpan vernal pool habitat within the BSA. While there are a few wetlands within the BSA, these wetlands are more characteristic of seasonal wetlands and dominated by generalist wetland plant species.

c) **Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**Less than significant impact with mitigation incorporated.** No formal delineation of jurisdictional waters were performed for the project site outside the assessment performed in the BRAs. Based on project site observations, and review of aerial imagery, the proposed development area on resultant Parcel 1 appears to contain seasonal wetlands that may be considered as Waters of the U.S. Future disturbances on Parcel 1 may cause potentially significant impacts to wetland resources if fill materials are discharged into the resource, which would violate the Clean Water Act. If impacts occur, the Army Corps of Engineers (Corps) may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit. **Mitigation Measure BIO-3** would ensure that prior to disturbances on Parcel 1 that the full extent of wetland resources are mapped by a qualified biologist. The measure includes provisions to add appropriate buffers to avoid potential impacts; however, if impacts cannot be avoided, the measures includes provisions for the project proponent to obtain the appropriate permits from the Corps.

d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less than significant impact.** Wildlife movement corridors are routes frequently utilized by wildlife that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat. Wildlife movement corridors are an important element of resident species home ranges, including deer and coyote.

The project site is not located within Butte County migratory deer corridors. No major migratory routes or corridors have been designated through the project site, and the existing developed components of the project area (i.e., roads, residential uses, fenced parcels) preclude use of the area as a migratory wildlife corridor for

large mammals. However, the site may facilitate home range and dispersal movement of resident wildlife species, including birds, small mammals and other wildlife. Subsequent development of the resultant parcels would follow the existing pattern of development found in the area, and would continue to allow for limited resident wildlife species movement.

e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No impact.** The project would not conflict with any local policies or ordinances protecting biological resources and is consistent with goals and policies identified in Butte County General Plan 2030.

f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No impact.** The Butte Regional Conservation Plan (BRCP) is a joint Habitat Conservation Plan (HCP)/National Community Conservation Plan (NCCP) that is currently being prepared for the western half of the Butte County. In the event the BRCP is adopted, individual projects and development that occur in the BRCP planning area would need to be coordinated with the Butte County Association of Governments to ensure that the project does not conflict with the BRCP. As the plan has not been adopted, the proposed project will not conflict, nor interfere with, the attainment of the goals of the proposed plan.

## Mitigation Measures

### Mitigation Measure BIO-1

Prior to future grading or development on Parcel 1, wetlands within the designated development area on Parcel 1 shall be mapped by a qualified biologist utilizing approved USACE methodologies to determine the nature and extent of each wetland feature. A 250-foot development avoidance 'No Disturbance' buffer shall be established around the edge of wetland resources. The width of the buffer may be reduced if the biologist verifies the absence of Vernal Pool Fairy Shrimp in the wetland resource. However, in no case shall the buffer be reduced to less than 50 feet. Wetland resources and the established development avoidance buffer area shall be delineated on development and/or grading plans. If future construction activities on the resultant parcels would affect the identified wetland resources or the established buffer area, the project proponent shall either obtain appropriate permits from the USACE, pursuant to Section 404 and 401 of the Clean Water Act, or obtain a letter from USACE that states the areas of disturbance would not impact jurisdictional features.

Mitigation requirements for the fill of waters of the U.S. will be implemented through an onsite restoration plan, and/or an In Lieu Fund and/or a certified conservation bank with a Service Area that covers the proposed project area. These agreements, certifications and permits may be contingent upon successful completion of the CEQA process.

**Plan Requirements:** On-site wetland resources shall be mapped with an avoidance buffer recommended by a qualified biologist. The wetland resource and buffer area shall be shown on any future grading or development plans. This measure shall be recorded on an additional map sheet of the Parcel Map.

**Timing:** Requirements of the condition shall be adhered to prior to grading or development within the development area of Parcel 1.

**Monitoring:** The Butte County Department of Development Services and the Public Works Department shall ensure the mitigation is recorded on an additional map sheet of the Parcel Map. Department of Development Services and Public Works Department shall ensure the condition is met prior to development or grading activities.

### Mitigation Measure BIO-2

Prior to construction activities on Parcel 1, the project proponent shall use exclusionary fencing to mark the boundaries of intermittent creeks, seasonal drainages, wetlands, swales, and vernal pools that are to be avoided. The exclusionary fencing shall be maintained in place throughout construction. Additional permitting conditions required by regulatory agencies may be required as a result of the permitting process.

**Plan Requirements:** The mitigation shall be recorded on an additional map sheet to the Parcel Map, and noted on future development and grading plans.

**Timing:** Requirements of the condition shall be adhered to prior to construction activities, and throughout all grading and construction periods.

**Monitoring:** The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded on an additional map sheet of the Parcel Map, and noted on future development and grading plans. Department of Development Services shall ensure the condition is met at the time of development and during construction activities.

### **Mitigation Measure BIO-3**

If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC) (approximately February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.

**Plan Requirements:** Perform protocol-level surveys for migratory birds protected by the California Department Fish & Game Code and the Migratory Bird Treaty Act. This measure shall be recorded on an additional map sheet to the Parcel Map.

**Timing:** Requirements of the condition shall be adhered to prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between February 1 and August 31).

**Monitoring:** The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded on an additional map sheet of the Parcel Map. Department of Development Services shall ensure the condition is met at the time of construction activities.

## 1.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>V. Cultural Resources.</b>				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Environmental Setting

An archaeological investigation was performed for the project site. The investigation included a record search conducted through the Northeast Information Center (NEIC) of the California Historical Resources Information System in February 2018 for existing archeological sites and surveys on the project site and surrounding area. The record search included research of the following documents: Official archeological records and maps for Butte County; National Register of Historic Places (1988); California Register of Historic Resources (2007); California Points of Historical Interest (1992); California Inventory of Historic Resources (1976); California Historical Landmarks (1996); Directory of Properties in the Historic Property Data File for Butte County (2007); Handbook of North American Indians, Vol. 8, California (1978); Historic Spots in California (1966); and Gold Districts of California (1970). According to the records search, no prehistoric or historic sites have been recorded in the project site; however, one historic site consisting of a foundation and fence had been recorded within 1-mile from the project site. Due to the presence of historic resources in the project area, the utilization of the area by Konkow Maidu populations, and the undisturbed surface condition of the project site, a cultural resources survey of the project site was prepared.

A cultural resource assessment for the project site was prepared by Peak & Associates, Inc. on November 16, 2018. The assessment included a review of previous cultural resource surveys and maps of recorded cultural resources within a one-eighth mile radius from the project site. The assessment also included a field survey of the project site, which was performed on October 28, 2018. A concrete water trough, several fragments of one-inch diameter iron pipe and a capped well that was once associated with a windmill were observed during the field survey. The historic period resource was assigned the temporary field number PA-18-42. Additional information from the assessment is contained in the Appendix.

#### PA-18-42

The resource consists of a concrete water trough, several one-inch diameter iron pipes and a capped well. According to the 1951 Nord USGS topographic quadrangle (based on aerial photographs taken in 1947) the resource once had a windmill present. The water trough is 14.5 feet in diameter and 34 inches high. The concrete is six inches thick. An irregular-shaped concrete pad extends out from the water trough about five feet. The well is capped with one-quarter inch thick sheet metal.

The (former) windmill and water trough are the only feature shown on the 1951 USGS Nord topographic map for the entire section. It is reasonable to assume that this feature once served livestock as a watering station and was associated with a large landholding. Since the Project remained a Railroad Land Grant through the 1890s, the ranch was one of

the later ones in the area since the 1877 county map shows ownership all around section 13, but nothing within the entire section. Section 12 to the immediate north of the Project, for example, was the site of the John Morgan Ranch that was settled by 1860 (Peak & Associates, Inc. 2009).

PA-18-42 does not appear on the 1912 USGS Nord topographic quadrangle that was based on a survey conducted in 1910, so the feature must date to sometime after this period. The low aggregate content of the concrete used in the construction of the trough implies a later date of construction, perhaps post WWII but sometime pre-1947 when the aerial photograph of the Project was taken.

The concrete water trough, iron pipes, and capped well are physical reminders of the previous use of the Project for livestock raising. The original windmill is absent, so the integrity of the resource has been compromised. The setting of the resource has also been radically shifted from open field to small ranchettes lining a road, Will T, which was not present even in the late 1960s.

There is no apparent association with important individuals or events in history as the Project was acquired relatively late in Butte County's history. Concrete water troughs are not uncommon features on ranches, and PA-18-42 does not display any particular architectural or aesthetic quality or unique construction methods to meet the criteria for inclusion into the California Register as an important site.

## Discussion

### a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

**Less than significant impact with mitigation incorporated.** The archaeological records search did not reveal the existence of any historic resources on the project site. However, historical resources such as a windmill and stream, structures, and roads, including the Old Fremont Trail and Shasta Road, had been identified in the project area. The cultural resource assessment prepared by Peak & Associates identified a historic resource: PA-18-42; however, this feature did not display any architectural or aesthetic quality or unique construction methods, or was associated to an important individual that would cause this resource to meet the criteria for inclusion into the California Register.

Native American populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, and seasonal game. Historically, Euro-Americans utilized the region for mining farming, and cattle ranching. With historic use of the project area by prehistoric and historic populations, unanticipated and accidental archaeological discoveries may be encountered during ground-disturbing activities, resulting in potentially significant impacts. To avoid potential impacts to undiscovered prehistoric resources, historic resources, and human remains that may be uncovered during development activities on the project site, **Mitigation Measure CUL-1**, below, is recommended.

### b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

**Less than significant impact with mitigation incorporated.** Based on the records review and cultural site assessment, no archeological resources have been recorded on the project site or within the project area. The possibility exists that buried archaeological resources that may meet the criteria of a unique archaeological resource is present on the project site. If any buried resources are encountered and damaged during project implementation, the destruction of the archaeological resources would be a potentially significant impact. Implementation of **Mitigation Measure CUL-1** would reduce this impact to a less-than-significant level.

### c) Disturb any human remains, including those interred outside of formal cemeteries?

**Less than significant impact with mitigation incorporated.** Indications are that humans have occupied Butte County for over 10,000 years and it is not always possible to predict where human remains may occur outside

of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials.

Under CEQA, human remains are protected under the definition of archaeological materials as being “any evidence of human activity.” Additionally, [Public Resources Code section 5097.98](#) has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during project implementation.

The Butte County Conservation Element has established two policies that address the inadvertent discovery of human remains. COS-P16.3 requires human remains discovered during construction to be treated with dignity and respect and to fully comply with the federal Native American Graves Protection and Repatriation Act and other appropriate laws. COS-P16.4 requires work to stop if human remains are found during construction until the County Coroner has been contacted, and, if the human remains are determined to be of Native American origin, the North American Heritage Commission and most likely descendant have been consulted.

Implementation of the **Mitigation Measure CUL-1** would ensure that all construction activities that inadvertently discover human remains implements state required consultation methods to determine the disposition and historical significance of any discovered human remains. **Mitigation Measure CUL-1** would reduce this impact to a less than significant level.

## Mitigation Measures

### Mitigation Measure CUL-1

If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all subdivision improvements, including land clearing, road construction, utility installation, and building site development.

**Plan Requirements:** This note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet and shall be shown on all site development and building plans.

**Timing:** This measure shall be implemented during all site preparation and construction activities.

**Monitoring:** The Department of Development Services and/or Public Works Department shall ensure the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Should cultural resources be discovered, the landowner shall notify the Planning Division and a professional archaeologist. The Planning Division shall coordinate with the developer and appropriate authorities to avoid damage to cultural resources and determine appropriate action. State law requires the reporting of any human remains.

## 1.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. Energy.</b>				
Would the project:				
a) 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**Less than significant impact.** The proposed project would consume energy primarily in two ways: (1) construction activities would consume energy through the operation of heavy off-road equipment, trucks, and worker traffic, and (2) future residential uses and agricultural activities would cause long-term energy consumption from electricity and propane gas consumption, energy used for water conveyance, and vehicle operations to and from the project site.

Construction energy consumption would largely occur from fuel consumption by heavy equipment during grading activities associated with road and building site clearance; trucks transporting construction materials to the site during parcel development; and, worker trips to and from the job site. Energy consumption during construction related activities would vary substantially depending on the level of activities, length of the construction period, specific construction operations, types of equipment, and the number of personnel. Despite this variability in the construction activities, the overall scope of the anticipated construction at the project site is relatively minor, and would be complete within a few weeks, and therefore, would not require a substantial amount of fuel to complete construction. Additionally, increasingly stringent state and federal regulations on engine efficiency combined with local, state, and federal regulations limiting engine idling times and recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. Considering the minimal amount of construction activities associated with the project, the proposed project would not result in the wasteful and inefficient use of energy resources during construction and impacts would be less than significant.

Long-term energy consumption would occur after residential build-out of the resultant parcels, or by agricultural activities presently allowed on the project site. Residential uses would consume electricity and/or propane gas for space heating, water heating, and cooking. Whereas, electricity would primarily be used for lighting, appliances, water conveyance and other activities within the home. The project would also generate additional vehicle trips by residents commuting to and from work or to access services, which would result in the consumption of transportation fuel.

State and federal regulatory requirements addressing fuel efficiency are expected to increase fuel efficiency over time as older, less fuel-efficient vehicles are retired, and therefore would reduce vehicle fuel energy

consumption rates over time. Therefore, energy impacts related to fuel consumption/efficiency during project operations would be less than significant.

b) **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency**

**Less than significant impact.** Many of the state and federal regulations regarding energy efficiency are focused on increasing building efficiency and renewable energy generation, as well as reducing water consumption and Vehicles Miles Traveled. The proposed project includes energy conservation measures to meet and exceed the regulatory requirements, including reducing idling time of heavy equipment during construction activities (see Mitigation Measure AIR-1 and GHG-1) and the addition of exterior outlets in residential buildings for recharging electric cars and other household equipment. Additionally, future residential uses on the resultant parcels would also be in compliance with the most recent Title 24 and CalGreen building code standards at the time of project construction. Therefore, the proposed project would implement energy reduction design features and comply with the most recent energy building standards and would not result in wasteful or inefficient use of nonrenewable energy sources.

# 1.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VII. Geology and Soils.</b>				
Would the project:				
a) Directly or indirectly cause 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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Discussion

a) Directly or indirectly cause 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.)

**Less than significant impact.** There are no known active faults underlying, or adjacent to, the project site. The Cleveland Hill fault is the only active fault zone in Butte County identified in the most recent Alquist-Priolo Earthquake Fault Zoning Map. The Cleveland Hill fault is located east of Dunstone Drive and Miners Ranch Road, between North Honcut Creek and Mt. Ida Road, approximately 4± miles southeast of the City of Oroville. Because the nearest active fault is located a considerable distance from the project site, the likelihood of a surface rupture at the project site is very low, and would not be a design consideration for future development.

ii) Strong seismic ground shaking?

**Less than significant impact.** Ground shaking at the project site could occur due to the earthquake potential of the regions active faults. However, active faults are relatively distant from the project site, and would result in low to moderate intensity ground shaking during seismic events. Future residential development on the resultant parcels would be subject to the California Building Code (CBC). The CBC would provide minimum standards to safeguard life or limb, health, property and public welfare by regulating the design, construction, quality of materials, use and occupancy, location, and maintenance of buildings and structures within Butte County. Adherence to the CBC during building construction would ensure that potential impacts are less than significant.

iii) Seismic-related ground failure, including liquefaction?

**Less than significant impact.** According to Butte County General Plan 2030, areas that are at risk for liquefaction can be found on the valley floor, especially near the Sacramento and Feather Rivers, and their tributaries, which have a higher potential to contain sandy and silty soils. The California Building Code (CBC) regulates the construction of structures, which may be constructed with approval of the proposed project. Adherence to CBC standards at the time of development of the resultant parcels would ensure that new structures are adequately sited and engineered to reduce impacts related to seismic ground failure, including liquefaction, are less than significant.

iv) Landslides?

**Less than significant impact.** The project area is primarily level with 0-2% slopes. As a result, the landslide potential for the project site and surrounding area is low. Though the potential for landslides are generally low, shallow slope failures can occur in virtually any sloping terrain during construction activities. Avoidance of potentially sensitive slopes and/or implementation of appropriate engineering and construction measures at the time of development would avoid or reduce potential impacts of landslides to a less than significant level.

b) Result in substantial soil erosion or the loss of topsoil?

**Less than significant impact.** According to Figure 4.6-4 of Butte County General Plan 2030, the project site has a slight potential of soil erosion. Nevertheless, surface soil erosion and loss of topsoil has the potential to occur in any area of the county from disturbances associated with the construction-related activities.

Construction activities could also result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at the construction site and staging areas.

During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation.

Additionally, future construction activities may be subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Storm Water permit program if one acre or more of land is disturbed. Construction activities that result in a land disturbance of less than one acre, but which are part of a larger common plan of development, also require a permit. This program requires implementation of erosion control measures during and immediately after construction that are designed to avoid significant erosion during the construction period. In addition, the project operation would be subject to State Water Resources Control Board requirements for the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to control pollution in stormwater runoff from the project site, including excessive erosion and sedimentation. The SWPPP, if required, must be obtained prior to any soil disturbance activities. Implementation of standard erosion control BMP's during future construction-related activities, together with adherence to State requirements regarding grading activities, would ensure that potential erosion impacts are less than significant.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

**Less than significant impact.** According to Butte County General Plan 2030, the project site is not located in an area prone to landslides, subsidence or liquefaction. However, destabilization of natural or constructed slopes could occur as a result of future construction activities. Excavations, grading, and fill operations associated with parcel development could alter existing slope profiles making them unstable as a result of over-excavation of slope material, steepening of the slope, or increased loading. Standard engineering design features and construction procedures would be implemented to maintain stable slopes and excavations during construction, reducing impacts of unstable slopes to a less than significant level.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?**

**Less than significant impact.** According to Figure 4.6-3 of Butte County General Plan 2030, the project site is located in an area with a very high potential to have expansive soils. Expansive soils can cause structural damage particularly when concrete structures are in direct contact with the soils. Appropriate design features to address expansive soils may include excavation of potentially problematic soils during construction and replacement with engineered backfill, ground-treatment processes, direction of surface water and drainage away from foundation soils, and the use of deep foundations such as piers or piles. Implementation of these standard engineering methods and adherence to California Building Code (CBC) standards at the time of development of the resultant parcels would ensure that any impacts associated with expansive soils would remain less than significant.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

**Less than significant impact.** Wastewater disposal on the project site would be handled by new, individual, on-site septic systems. General Plan 2030 includes a number of policies in the Water Resources Element and the Public Facilities Services Element both to address existing septic systems in areas with poor soils and to ensure

the safety of future septic systems. To ensure the safety of new septic systems, Policy PUB-P13.2 requires new development to demonstrate the availability of a safe, sanitary, and environmentally sound wastewater system. Similarly, Policy PUB-P13.3 requires applicants of projects that will rely on on-site wastewater systems to provide detailed plans demonstrating that the system will be adequate to serve the project (Butte County General Plan 2030 EIR).

The applicant completed a pre-application review with Butte County Department of Environmental Health, in accordance with Chapter 19 of Butte County Code (On-Site Wastewater Systems). As part of the review, an initial septic area on the resultant parcels were evaluated and determined to have adequate soil conditions to allow for future development of an on-site wastewater system. Future development requiring wastewater disposal is required to receive an On-Site Wastewater System Construction Permit from Environmental Health. Application for a Construction Permit will include detailed plans of the proposed wastewater system, prepared by a Certified Installer or Certified Designer, which will demonstrate compliance with County regulations and the County's On-Site Wastewater Manual, and to ensure a safe, sanitary, and environmentally sound wastewater system.

f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less than significant impact.** The project is classified as a Pleistocene-age Riverbank Formation that overlies the Red Bluff formation. The Riverbank Formation consists of weathered gravel, sand, and silt that were deposited between 0.13 and 0.45 million years ago. The thickness of the Riverbank Formation ranges from less than 1 foot to more than 200 feet. The Riverbank Formation is composed of a lower and upper terraces, which were formed by stream carry eroded materials from the surrounding mountain ranges to the base of the foothills, where they were deposited in wide alluvial fans and terrace deposits. The lower terrace consists of red semi-consolidated gravel, sand and silt. The upper terrace consists of unconsolidated but compact, dark-brown to red alluvium containing gravel, sand, silt, and with minor clay. Groundwater generally occurs under unconfined conditions (Geology of the Northern California Sacramento Valley, 2014).

Sediments associated with the Riverbank Formation are typically devoid of significant vertebrate fossils, and no previously recorded fossil sites has been identified on the project site or the surrounding area. Therefore, it is not likely that unique paleontological resources would be found in local sediments. Further, the discovery of fossils, and the subsequent opportunity for data collection and study, is a rare event that could occur from construction grading activities associated with development. As a result, the probability of encountering fossils on the project site is low, and would have a less than significant impact on previously unknown paleontological resources.

## 1.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VIII. Greenhouse Gas Emissions.</b>				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 type="checkbox"/>	<input checked="" type="checkbox"/>

### Environmental Setting

The Butte County Climate Action Plan (CAP) was adopted on February 25, 2014. The Butte County CAP provides goals, policies, and programs to reduce GHG emissions, address climate change adaptation, and improve quality of life in the county. The Butte County CAP also supports statewide GHG emission-reduction goals identified in AB 32 and SB 375. Programs and actions in the CAP are intended to help the County sustain its natural resources, grow efficiently, ensure long-term resiliency to a changing environmental and economic climate, and improve transportation. The Butte County CAP also serves as a Qualified GHG Reduction Strategy under CEQA, simplifying development review for new projects that are consistent with the CAP.

A 2006 baseline GHG emission inventory was prepared for unincorporated Butte County. The inventory identified the sources and the amount of GHG emissions produced in the county. The leading contributors of GHG emissions in Butte County are agriculture (43%), transportation (29%), and residential energy (17%). The Climate Action Plan (CAP) adopted by the County provides a framework for the County to reduce GHG emissions while simplifying the review process for new development. Measures and actions identified in the CAP lay the groundwork to achieve the adopted General Plan goals related to climate change, including reducing GHG emissions to 1990 levels by 2020.

New projects are evaluated to determine consistency with the CAP and to identify which GHG emission reduction measures would be implemented with project approval. These measures may include expansion of renewable energy systems for new residential development by prewiring future development for photovoltaic systems; reduction of construction equipment idling time; and, installation of electric vehicle charging outlets in the garage or the exterior of the home.

### Discussion

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

**Less Than Significant Impact.** The project is a minor subdivision that would contribute greenhouse gas emissions during parcel development, and by the subsequent uses on the resultant parcels. Construction-related emissions during parcel development may be generated from construction equipment exhaust, construction employee vehicle trips to and from the work site, architectural coatings and asphalt paving. The project's construction GHG emissions would occur over a short duration and would consist primarily of emissions from equipment exhaust. The long-term regional emissions associated with the project would primarily occur from the creation of new vehicular trips and indirect source emissions, such as electricity usage for lighting.

The proposed project would be required to implement **Mitigation Measure GHG-1**, which reduces project emissions of heavy-duty diesel-powered equipment during construction and long-term GHG emissions associated with future uses on the resultant parcels. Implementation of this measure would minimize project-related GHG emissions to the extent feasible, consistent with AB 32 GHG reduction goals, and would therefore result in a less than significant impact.

b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** The project is subject to compliance with AB 32 greenhouse gas emission reduction goals, which are to reduce statewide GHG emissions to 1990 levels by 2020. Additionally, development on the resultant parcels would be subject to Title 24, California Building Code, which includes CalGreen standards. These standards include mandatory measures that addresses planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. Implementation of **Mitigation Measure GHG-1** would mitigated project-generated GHG emissions through programmatic-level measures established through the Butte County CAP. The project's compliance with the applicable policies and measures in the CAP would in turn meet the statewide GHG emission reduction goals.

## Mitigation Measures

### Mitigation Measure GHG-1

The project proponent shall implement the following measures during construction-related activities and at the time of development to offset the anticipated contribution of greenhouse gas emissions:

- Prewire all new residential development to support photovoltaic system installation.
- Install electrical vehicle outlets on external walls or in garages in all new residential development.
- Minimize equipment idling time during construction activities either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes.
- Use clean or alternative fuel equipment during construction-related activities to improve fuel efficiency.

**Plan Requirements:** The measure shall be placed on an additional map sheet which is to be recorded with the Parcel Map. This note shall also be placed on all building and site development plans.

**Timing:** Shall be implemented prior to issuance of building permits for residential development. Construction-related measures shall be adhered to throughout all grading and construction periods.

**Monitoring:** The Butte County Department of Development Services and the Public Works Department shall ensure that the measure is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Planning Division will ensure that future residential development includes the applicable measures during Building Permit review. Building inspectors shall spot check and shall ensure compliance on-site.

# 1.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. Hazards and Hazardous Materials.</b>				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) 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"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Discussion

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

**Less than significant impact.** Limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc. would be used to maintain vehicles and motorized equipment during construction-related activities. Accidental spill of any of these substances could impact water and/or groundwater quality. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to construction workers, the public, as well as the environment. Construction personal who are experienced in containing accidental releases of hazardous

materials will be present to contain and treat affected areas in the event a spill occurs. If a larger spill were to occur, construction personnel would generally be on-hand to contact the appropriate agencies.

It is not anticipated that large quantities of hazardous materials would be permanently stored or used within the project site. However, if large quantities are stored at the project site, the owner would be required to obtain a Hazardous Materials Business Plan. It is more likely that only small quantities of publicly-available hazardous materials (e.g., paint, maintenance supplies) may be routinely used within the project site for residential or agricultural maintenance and cleaning. However, these materials would not be used in sufficient strength or quantity to create a substantial risk of fire or explosion, or otherwise pose a substantial risk to human or environmental health.

- b) **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?**

**Less than significant impact.** It's not anticipated that construction or operation of future residential development or agricultural uses would create a significant hazard to the environment or to the public due to the accidental release of hazardous materials into the environment. Accidental release of hazardous materials routinely used during construction activities are addressed in section a.), above.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No impact.** No existing or proposed schools have been identified within one-quarter mile of the project site.

- d) **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?**

**No impact.** A review of regulatory agency databases, which included lists of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, did not identify a contamination site within, or in the vicinity of, the project site.

- 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 or excessive noise for people residing or working in the project area?**

**No impact.** No public use airports have been identified to be located within the vicinity of the project site. Chico Airport is located approximately 3.75 miles southeast from the project site. The proposed project is located outside the compatibility zones for the area airports, and therefore, would not result in a safety hazard to people working and residing on the project site.

- f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No impact.** The proposed project would design, construct, and maintain roadways in accordance with applicable standards associated with vehicular access, resulting in the roadways that provide for adequate emergency access and evacuation. The project does not include any actions that physically interfere with any emergency response or emergency evacuation plans. Development of the resultant parcels would add a small amount of trips onto the area roadways; however, area roadways and intersections would continue to operate at an acceptable level of service. Future construction activities would be limited to private roads adjacent to the project site. No road improvements within a County right-of-way is anticipated.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

**Less than significant impact.** The project site has been designated as a very high fire hazard by the State Department of Forestry and Fire Protection. The project site is also within a designated State Responsibility Area (SRA), which means that the State has fiscal responsibility for preventing and suppressing wildfires. Due to the heightened risk of wildfire and increased potential for damage or loss in SRAs, development within these areas must comply with special building requirements established in Chapter 7A of the California Building Code and Chapter 47 of the California Fire Code. SRAs are also regulated by Public Resources Code 4290 and 4291, which establish standards for access, signage, maintenance of defensible space and vegetation management. These standards will be included as conditions of approval and implemented at the time of development of future structures. Implementation these standards, as well as oversight by Butte County Fire/Cal Fire, would ensure the proposed project would not expose people or structures to a significant risk or loss, injury or death involving wildland fires.

## 1.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>X. Hydrology and Water Quality.</b>				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

**Less than significant impact.** Butte County General Plan 2030 identifies the soil conditions of the project site has a slight potential to erode. Though the potential for erosion is low, site development and future build-out of the resultant parcels would require grading, excavation and general site preparation activities, which could result in erosion of on-site soils and sedimentation during storm or high wind events. Erosion of on-site soils may temporarily impact surface water quality and water quality within nearby waterways. Downstream impacts from erosion may include increased turbidity and suspended sediment concentrations in waterways. Eroded

soils also contains nitrogen, phosphorous and other nutrients, that when deposited in water bodies, can trigger algal blooms that reduce water clarity, deplete oxygen, and create odors.

During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site by construction personnel. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation.

Future construction activities may be subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Storm Water permit program if one acre or more of land is disturbed. Construction activities that result in a land disturbance of less than one acre, but which are part of a larger common plan of development, may also require a permit issued by the California Regional Water Quality Control Board. This program requires implementation of erosion control measures during and immediately after construction that are designed to avoid significant erosion during the construction period. Project operations that are under a NPDES permit would also be subject to the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to control pollution in stormwater runoff from the project site. A condition of approval reflecting the requirement of the applicant to obtain a NPDES permit, prior to grading activities, will be included with project approval.

b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less than significant impact.** Domestic water to existing and planned uses on the resultant parcels would be provided by groundwater extraction via individual wells. Section 12.0 of the Butte County Improvement Standards outline the requirements of water supplies for proposed subdivisions and parcel maps. Proposed subdivisions located outside an urban area and more than a 1,000 feet from an existing public water system, or subdivisions consisting of four new lots or less, a domestic water for the proposed lots supply may be supplied by individual wells. The quantity and quality of the groundwater for the proposed development is reviewed by the Butte County Environmental Health Division by either a test well, a review of existing wells in the area, or a statement from a licensed well driller together with a report by an engineering geologist or hydrologist verifying that minimum well production for domestic purposes are achieved.

General Plan 2030 and the associated Environmental Impact Report included several actions and policies to address groundwater supplies and sustain groundwater resources. Butte County also has adopted the Butte County Integrated Water Resources Plan and Butte County Groundwater Management Plan, and has performed an analysis of long-term water usage and supplies with the 2001 Butte County Water Inventory and Analysis. The findings contained in these reports, together with the application of these existing policies and plans, led Butte County to conclude that the growth anticipated with General Plan 2030 would have a less than significant impact to groundwater supplies.

The proposed project would have a minimal net increase in impervious surfaces added to the project site from the development of new residences or other structures such as from concrete foundations and access road surfacing. The projected increase would not cause a measureable reduction in surface infiltration or a decrease in deep percolation to the underlying aquifers because density of the development would continue to provide open areas to allow for runoff infiltration.

c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

i) **Result in substantial on- or offsite erosion or siltation;**

**Less than significant impact.** Minimal vegetation removal and soil disturbance would occur during clearing of building sites and for the access road (less than one acre). During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site by construction personnel. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation. Application of BMPs administered through the construction process would minimize the potential increase of surface runoff from erosion.

ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**

**Less than significant impact.** The minor increase in impervious surface area from build-out of the resultant parcels are not anticipated to be enough to alter existing drainage patterns or cause offsite flooding. While an increase in stormwater runoff may be expected due to the reduced absorption rate created from new impervious surfaces added to the site, such as from structures, driveways, and hardscape (walkways, patios), future development would be reviewed by the Butte County Public Works Department to ensure any potential drainage concerns are addressed, and to ensure no net increase in stormwater runoff leaves the project site.

iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

**Less than significant impact.** Planned stormwater drainage systems in the project area currently consists of a system of roadside ditches and culverts that capture surface runoff, which ultimately infiltrate into the underground aquifer or conveyed to area waterways.

General Plan 2030 Water Resource Element contains a number of policies that address stormwater runoff capacity. Policy W-P1.4 encourages Low Impact Development, which minimizes impervious areas, minimizes runoff and pollution, and incorporates best management practices. Policy W-P5.3 allows and encourages pervious pavements. Policy W-P5.5 requires that stormwater collection systems be installed concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity. Policy HS-P3.2 requires that applicants for new development provide plans detailing existing drainage conditions and specifying how runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility, without increasing the peak flow runoff to said channel or facility. Policy HS-P3.3 requires that all development include stormwater control measures and site design features that prevent any increase in the peak flow runoff to existing drainage facilities.

The proposed project would generate a minor increase in runoff from the future development of the resultant parcels. Improvements are relatively small and conveyed through a system of existing roadside ditches and culverts to area waterways. The minor increase runoff would not exceed the capacity of the existing stormwater drainage systems or substantially increase polluted runoff.

iv) **Impede or redirect flood flows?**

**Less than significant impact.** The floodplain mapping of the project area identifies the project site being located within the X (shaded) zone. The X (shaded) zone is defined by FEMA as areas between the limits of the 100-year base flood and the 0.2-percent-annual-chance (or 500-year) flood. Future

site improvements would be reviewed by Butte County Public Works to ensure that surface flows would be adequately directed to planned and existing stormwater drainage facilities.

d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No impact.** The floodplain mapping of the project area identifies the project site being located within the X (shaded) zone. The X (shaded) zone is defined by FEMA as areas between the limits of the 100-year base flood and the 0.2-percent-annual-chance (or 500-year) flood. The project site is not located in an area that would be impacted by a seiche, tsunami, or mudflows.

e) **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**No impact.** The project site is located within the Vina subbasin of the Sacramento Valley groundwater basin bounded on the north at the Tehama County line, to the west by the Sacramento River, to the south at the border of Western Canal Water District, and to the east by the edge of the alluvial basin as defined by Bulletin 118. The Groundwater Sustainability Agencies in the Vina subbasin include Butte County, the City of Chico, Durham Irrigation District and Rock Creek Reclamation District. Butte County, The City of Chico and Durham Irrigation District are in the process of entering into a Joint Powers Agreement in order to create a Groundwater Sustainability Agency in order to implement the requirements of the Sustainable Groundwater Management Act including adoption of a basin management plan. As a basin management plan has not been adopted for the Vina subbasin, the proposed project will not conflict, nor interfere with, the attainment of the goals of the proposed plan.

## 1.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XI. Land Use and Planning.</b>				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Environmental Setting

### Butte County General Plan

The General Plan represents the community's values, ideals and aspirations with respect to land use, development, transportation, public services, and conservation policy that will govern Butte County through 2030. The Land Use Element of the General Plan designates the land use of areas within the County, and includes a description of the characteristics and intensity of each land use category. The land use designation for the proposed project site is as follows:

#### Agriculture

This designation allows the cultivation, harvest, storage, processing, sale, and distribution of all plant crops, especially annual food crops, as well as roadside stands for the sale of agricultural products grown or processed on the property. The Agriculture designation also allows livestock grazing, animal husbandry, intense animal uses, and animal matter processing. Alternative energy facilities are allowed in the Agriculture designation, subject to permit requirements. Residential uses in the Agriculture land use designation are limited to one single-family dwelling and a second dwelling unit per legal parcel. Farm labor housing is also permitted with a conditional use permit. The minimum parcel size is between 20 to 160 acres, although existing parcels smaller than the minimum may remain as legal parcels.

### Butte County Zoning Ordinance

The Zoning Ordinance implements the goals and policies of the Butte County General Plan by regulating the uses of land and structures within the County. The zoning designation of the proposed project site and the intended uses of the site are as follows:

#### Agriculture (AG)

The purpose of the AG zone is to support, protect, and maintain a viable, long- term agricultural sector in Butte County. Standards for the AG zone maintain the vitality of the agricultural sector by retaining parcel sizes necessary to sustain viable agricultural operations, protecting agricultural practices and activities by minimizing land-use conflicts, and protecting agricultural resources by regulating land uses and development intensities in agricultural areas. Permitted uses include crop cultivation, animal grazing, stock ponds, and agricultural processing. More intensive agricultural activities, such as animal processing, dairies, hog farms, stables, forestry and logging, and mining and oil extraction, are permitted with the approval of a Conditional Use Permit. One (1) single-family home and one (1) second unit and accessory dwelling unit is permitted on each legally established parcel within the AG zone, and residential uses for agricultural employees are permitted as an accessory use within the AG zone. The minimum permitted parcel sizes in the AG zone ranges

from twenty (20) acres to one hundred sixty (160) acres. The minimum parcel size for the subject parcel is twenty (20) acres.

## Discussion

a) **Physically divide an established community?**

**No impact.** The project area is located in rural Butte County and surrounded by residential and agricultural operations on parcel sizes that range from 5 acres to 530 acres. No communities are present either within the project area or in the immediate vicinity; therefore, the project would not physically divide an established community.

b) **Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**Less than significant impact.** The proposed project including future uses on the resultant parcels are consistent with density and uses permitted under the General Plan land use and zoning designations for the project site and, as detailed throughout this Initial Study, the General Plan's applicable goals, policies and actions. In addition, all impacts to the environment resulting from the proposed project are subject to applicable mitigation and local, State and/or federal regulations, which would reduce those impacts to less than significant levels. Therefore, impacts related to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to General Plan 2030, specific plan, Airport Land Use Compatibility Plan or County ordinances) adopted for the purpose of avoiding or mitigating an environmental effect are less than significant.

## 1.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. Mineral Resources.</b>				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**Less than significant impact.** There are no known economically viable sources of rock materials in the immediate vicinity of the project site. No mining operations have occurred on the project site or surrounding area, and the project would not preclude future extraction of available mineral resources. Mineral resource extraction is not proposed with this project. However, future development on the resultant parcels would use mineral resources in the construction of structures and access roads. The amount of resources used for development on the resultant parcels are minor and would not result in the loss of its availability.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**No impact.** The project site is not within or near any designated locally-important mineral resource recovery site.

## 1.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII.Noise.</b>				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

According to the Butte County General Plan 2030, noise is a concern throughout Butte County, but especially in rural areas and in the vicinity of noise-sensitive uses such as residences, schools, and churches. Noise is discussed in the Health and Safety Chapter of the Butte County General Plan 2030. Tables HS-2 and HS-3 in the County General Plan (included as Tables 1.13-1 and 1.13-2 below) outline the maximum allowable noise levels at sensitive receptor land uses.

**Table 1.13-1. Maximum Allowable Noise Exposure Transportation Noise Sources**

LAND USE	Exterior Noise Level Standard for Outdoor Activity Areas <sup>a</sup>		Interior Noise Level Standard	
	L <sub>dn</sub> /CNEL, dB	L <sub>eq</sub> , dBA <sup>b</sup>	L <sub>dn</sub> /CNEL, dB	L <sub>eq</sub> , dBA <sup>b</sup>
Residential	60 <sup>c</sup>	-	45	-
Transient Lodging	60 <sup>c</sup>	-	45	-
Hospitals, nursing homes	60 <sup>c</sup>	-	45	-
Theaters, auditoriums, music halls	-	-	-	35
Churches, meeting halls	60 <sup>c</sup>	-	-	40
Office Buildings	-	-	-	45
Schools, libraries, museums	-	70	-	45
Playgrounds, neighborhood parks	-	70	-	-

Source: Table HS-2, Butte County General Plan 2030

<sup>a</sup> Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

<sup>b</sup> As determined for a typical worst-case hour during periods of use.

<sup>c</sup> Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with this table.

**Table 1.13-2. Maximum Allowable Noise Exposure Non-Transportation Noise Sources**

NOISE LEVEL DESCRIPTION	Daytime 7 am - 7 pm		Evening 7 pm - 10 pm		Night 10 pm - 7 am	
	Urban	Non-Urban	Urban	Non-Urban	Urban	Non-Urban
Hourly Leq (dB)	55	50	50	45	45	40
Maximum Level (dB)	70	60	60	55	55	50

Source: Table HS-3, Butte County General Plan 2030

**Notes:**

1. “Non-Urban designations” are Agriculture, Timber Mountain, Resource Conservation, Foothill Residential and Rural Residential. All other designations are considered “urban designations” for the purposes of regulating noise exposure.
2. Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).
3. The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.
4. In urban areas, the exterior noise level standard shall be applied to the property line of the receiving property. In rural areas, the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all affected property owners and approved by the County.

Table 1.13.1, above, identifies the maximum allowable noise exposure to a variety of land uses from transportation sources, including from roadways, rail and airports. Table 1.13-2 identifies the maximum allowable noise exposure from non-transportation sources. In the case of transportation noise sources, exterior noise level standards for residential outdoor activity areas are 60 dB (Ldn/CNEL). However, where it is not possible to reduce noise in an outdoor activity area to 60 dB Ldn/CNEL or less using a practical application of the best-available noise-reduction measures, an exterior noise level of up to 65 dB may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with applicable standards.

Butte County Noise Ordinance

Chapter 41A, Noise Control, of the Butte County Code of Ordinance applies to the regulation of noise. The purpose of the noise ordinance is to protect the public welfare by limiting unnecessary, excessive, and unreasonable noise. Section 41A-7 specifies the exterior noise limits that apply to land use zones within the County, which are provided in Table 1.13-2.

The Butte County Noise Ordinance provides the County with a means of assessing complaints of alleged noise violations and to address noise level violations from stationary sources. The ordinance includes a list of activities that are exempt from the provisions of the ordinance; however, some noise-generating activities associated with future residential uses would not be considered to be exempt from the Noise Ordinance. Relevant information related to the exterior and interior noise limits set out by the Butte County Noise Ordinance are included below.

Chapter 41A-9 Exemptions

The following are exempted activities identified in Chapter 41A-9 that are applicable to the proposed project:

- (f) Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property or public works project located within one thousand (1,000) feet of residential uses, provided said activities do not take place between the following hours:
- Sunset to sunrise on weekdays and non-holidays;
  - Friday commencing at 6:00 p.m. through and including 8:00 a.m. on Saturday, as well as not before 8:00 a.m. on holidays;
  - Saturday commencing at 6:00 p.m. through and including 10:00 a.m. on Sunday; and,
  - Sunday after the hour of 6:00 p.m.
- Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work into the hours delineated above and to operate machinery and equipment necessary to complete the specific work in progress until that specific work can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;
- (g) Noise sources associated with agricultural and timber management operations in zones permitting agricultural and timber management uses;
- (h) All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of adverse weather conditions or when the use of mobile noise sources is necessary for pest control;
- (i) Noise sources associated with maintenance of residential area property, provided said activities take place between 7:00 a.m. to sunset on any day except Saturday, Sunday, or a holiday, or between the hours of 9:00 a.m. and 5:00 p.m. on Saturday, Sunday, or a holiday; and, provided machinery is fitted with correctly functioning sound suppression equipment;

Chapter 41A-8 Butte County Interior Noise Standards

Interior noise standards discussed in Chapter 41A apply to all noise sensitive interior area within Butte County. The maximum allowable interior noise level standards for residential uses is 45 dB Ldn/CNEL, which is designed for sleep and speech protection. The typical structural attenuation of a residence from an exterior noise is 15 dBA when windows facing the noise source is open. When windows in good condition are closed, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling.

**Table 1.13-3. Maximum Allowable Interior Noise Standards**

NOISE LEVEL DESCRIPTION	Daytime 7 am - 7 pm	Evening 7 pm - 10 pm	Nighttime 10 pm - 7 am
Hourly Leq (dB)	45	40	35
Maximum Level (dB)	60	55	50

Source: Butte County Code Chapter 41A-8, Interior Noise Standards

## Discussion

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

**Less than significant impact.** No significant existing noise generating sources have been identified in the project area. Noise levels contributed by the proposed project would include construction noise during future build-out of the resultant parcels, occupancy of the single-family residences, and from agricultural-related activities allowed in the zone. Construction noises associated with development of the resultant parcel would primarily be from the use of heavy equipment, generators, employee vehicle trips and power tools. Construction-related noises would be temporary and intermittent, and would not result in long-term noise impacts. Compliance with Butte County Code provisions that exempt construction noise would ensure construction activities occur during daytime hours, making potential impacts less than significant.

Typical noises contributed by residential and agricultural uses include landscaping equipment, automobile traffic, power tools, domestic animals, farm machinery, heating and cooling systems. The noises generated by these activities are not atypical or unusual for residential and agricultural-zoned properties in the project area. These noises also would be intermittent and separated from noise sensitive receptors, and would unlikely exceed County standards. In the event noise levels exceed applicable noise standards, the County will review complaints in accordance with Butte County Code Chapter 41A.

- b) Generation of excessive groundborne vibration or groundborne noise levels?

**Less than significant impact.** The proposed project may involve temporary sources of groundborne vibration and groundborne noise from the operation of heavy equipment during build-out of the proposed project and resultant parcels. The type of heavy equipment typically used during residential construction would only generate localized groundborne vibration and groundborne noise that could be perceptible at residences or other sensitive uses in the immediate vicinity of the construction site. However, since the duration of impact would be infrequent and would occur during less sensitive daytime hours (i.e., between 7:00 a.m. and 7:00 p.m.), the impact from construction-related groundborne vibration and groundborne noise would be less than significant.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

**No impact.** No public use airports have been identified to be located within the vicinity of the project site. Chico Airport is located approximately 3.75 miles southeast from the project site. The proposed project is located outside the compatibility zones for the area airports, and therefore, would be outside the 60 dBA CNEL noise contour for the airport. The proposed project would not expose people residing or working in the project area to excessive noise levels from a public use airport or private airstrip.

## 1.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIV. Population and Housing.</b>				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Discussion

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

**Less than significant impact.** Subdivision of the project site would facilitate the potential addition of single-family residential units, which would directly result in growth in available housing and, if occupied, to the local population. Construction activities associated with development the proposed project would not involve construction of additional public roadways or infrastructure such as wastewater treatment facilities so as to indirectly induce population growth. Since housing and population generated by the proposed project would not exceed local and regional growth projections described in General Plan 2030, growth generated by the proposed project would not be substantial.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

**No impact.** The project site is developed with a single-family residence, which would be retained and situated on resultant Parcel 1 with approval of the proposed project. The proposed project would not result in the loss of existing housing, or cause a significant increase in the local population that would displace existing residents, necessitating the construction of additional housing.

## 1.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XV. Public Services.</b>				
Would the project:				
a) 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:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) 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:

#### Fire protection?

**Less than significant impact.** Fire protection services are provided by CalFire/Butte County Fire Department. Build-out of the resultant parcels may incrementally increase the demand for fire protection services. However, the population growth expected with this project is consistent with the planned growth documented in Butte County General Plan 2030. Additionally, Butte County Code requires the payment of fire protection impact fees to help offset the impacts that new residential development has on the fire protection services. Such fees would be used to fund capital costs associated with acquiring land for new fire stations, constructing new fire stations, purchasing fire equipment, and providing for additional staff as needed. Fire protection impact fees would be paid at the time of building permit issuance for a new dwelling unit.

#### Police protection?

**Less than significant impact.** The Butte County Sheriff's Office provides law enforcement service to the site. Implementation of the proposed project could increase service calls if additional residential structures are built. Increased development in rural areas impacts the ability of the Sheriff's Department to adequately provide services to outlying areas. It is anticipated that project implementation would not require any new law enforcement facilities or the alteration of existing facilities to maintain acceptable performance objectives. The project's increase in demand for law enforcement services would be partially offset through project-related impact fees.

## Schools?

**Less than significant impact.** The project site is located within the Chico Unified School District. Residential development at the site would result in an incremental demand for school facilities in the area. A development impact fee for school facilities will be assessed at the time of residential development on the resultant parcels. Impact fees would partially offset any potential impact to area school facilities. While school districts maintain that these fees do not fully mitigate the impacts of a project, the County is precluded from imposing additional fees or mitigation by State legislation.

## Parks?

**Less than significant impact.** The project site is located within the Chico Recreation and Park District (CARD). Build-out of the resultant parcels would result in an incremental increase in the use of existing local and regional park facilities. Development impact fees will be assessed at the time of residential development which will offset potential impacts to park facilities.

## Other public facilities?

**Less than significant impact.** The project does not require the extension of any public infrastructure, such as roads, water, or sewer systems. The project would result in added need for County services, such as law enforcement, fire protection, libraries, and road maintenance. Butte County collects various types of development impact fees to partially offset the cost and impacts associated with new residential units. These fees vary depending on the dwelling type, and are collected at the time of development.

## 1.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. Recreation.</b>				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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"/>

### Environmental Setting

The project site is located within the Chico Recreation and Park District (CARD). The district covers an area of approximately 208 square miles, and includes the City of Chico. The district operates and maintains approximately 214 acres of developed parkland and facilities to serve a population of approximately 104,367 residents. This translates into a level of service of 1.85 acres of parklands for every 1,000 residents. The total park facilities operated by the district do not include Bidwell Park and parks operated by State and Federal agencies. No park facilities are located in the vicinity of the project site; however, it's anticipated that future residents of the project site would likely use facilities located in the City of Chico, as well as nearby State-operated facilities, to meet their recreational needs.

### Discussion

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

**Less than significant impact.** Increase in the demand for recreational facilities is typically associated with substantial increases in population. As discussed in Section 1.14 - Population and Housing, the proposed project may generate growth in the local population, if residential units are constructed on the resultant parcels. This in turn may result in increased use of existing parks and recreational facilities in the surrounding area and the parks and recreation district servicing the area. However, because housing and population growth in the project area would be minor (i.e., 2 - 4 new residents with project buildout), the project would not result in a substantial increase in demand for recreational facilities or adversely affect Butte County or City of Chico park/population standards.

- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

**No impact.** The proposed project does not include plans for additional recreational facilities nor would it require expansion of existing recreational facilities. Therefore, the proposed project would not result in any adverse physical effects on the environment from construction or expansion of recreational facilities.

## 1.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVII. Transportation.</b>				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially increase hazards due to a geometric 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"/>
c) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

**Less than significant impact.** The project site is located in a rural area with no existing transit, bicycle or pedestrian facilities located on, or in the vicinity of, the project site. Future development on the resultant parcels would have minor long-term impacts on alternative transportation facilities due to the limited population growth to the project area. Construction activities associated with future development may generate short-term disruption to area roadways from an anticipated increase in traffic levels that may affect alternative transportation uses. However, construction activities associated with the proposed project would be temporary, and would require traffic control implementation, if needed.

- b) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**Less than significant impact.** The proposed project would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. The proposed project includes converting an existing driveway into a private road, which would be an extension of Meridian Meadows Lane. Improvements to Meridian Meadows Lane would include road widening and a vehicle turnaround. The applicant has requested an exception request to allow the road to retain its existing width; however, if granted this exception would not result in a substantial hazard. Future improvements would subject to review by Butte County Public Works. No atypical road design features has been identified on the existing area roadways that would cause a safety hazard.

- c) Result in inadequate emergency access?

**Less than significant impact.** The project site is located in a State Responsibility Area (SRA). SRAs are regulated by Public Resources Code 4290 and 4291 ([California Fire Safe Regulations](#)), which establish standards for access roads and signage. These standards will be included as conditions of approval and implemented at the time of development of future structures. Implementation these standards, as well as oversight by Butte County Fire/Cal Fire, would ensure that the resultant parcels has adequate emergency access.

## 1.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVIII. Tribal Cultural Resources.</b>				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	<input checked="" type="checkbox"/>			<input type="checkbox"/> No
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) 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"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Environmental Setting

Tribal Cultural Resources are defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe and is either on or eligible for the California Historic Register, a local register, or a resource that the lead agency, at its discretion, chooses to treat as such (Public Resources Code Section 21074 (a)(1)).

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the "archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses" (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, sub. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Per AB 52 Notification Request, Public Resources Code Section 21080.3(b), the County received two letters for notification. One was from the Torres Martinez Cahuilla Indians, located in southern California near the Salton Sea, and the other was from United Auburn Indian Community, located near the City of Auburn. It was determined through discussion with the Torres Martinez Cahuilla Indians that they do not identify lands within Butte County within their

geographic area of traditional and cultural affiliation. The United Auburn Indian Community provided a map of their area of traditional and cultural affiliation, which did not include the project site.

## Discussion

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) 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)?

**No impact.** Peak & Associates, Inc. prepared a cultural resources assessment for the project site on November 16, 2018, which has been discussed in Section 1.5 – Cultural Resources. Based on the results of the assessment, no features exist on the property, including objects, sites, or landscapes, that are considered as having cultural value to California Native American tribes, or are eligible for listing in the California Register of Historic Resources.

Native American populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, and seasonal game. Historically, Euro-Americans utilized the region for mining farming, and cattle ranching. With historic use of the project area by prehistoric and historic populations, unanticipated and accidental archaeological discoveries may be encountered during ground-disturbing activities, resulting in potentially significant impacts. Implementation of **Mitigation Measure CUL-1**, discussed in Section 1.5 – Cultural Resources, would avoid potential impacts to undiscovered prehistoric resources, historic resources, and human remains that may be uncovered during development activities.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

**No impact.** As detailed in response to Checklist Question 1.5a, a project-specific cultural resources assessment was conducted for the project site and included archaeological and historical records search, communication with Native American tribal representatives, and an intensive pedestrian survey of the project site. The intensive pedestrian survey of the project site failed to identify any prehistoric archaeological remains.

## 1.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIX. Utilities and Service Systems.</b>				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

### Solid Waste

Most municipal wastes are hauled to the Neal Road Recycling and Waste Facility, which is owned by Butte County and managed by the Butte County Department of Public Works. The Neal Road Facility is located at 1023 Neal Road, one mile east from State Highway 99, and seven miles southeast of Chico, on 190 acres owned by Butte County. The Neal Road Facility is permitted to accept municipal solid waste, inert industrial waste, demolition materials, special wastes containing nonfriable asbestos, and septage. Hazardous wastes, including friable asbestos, are not accepted at the Neal Road Facility or any other Butte County disposal facility, and must be transported to a Class I landfill permitted to receive untreated hazardous waste. The Facility has a design capacity of 25,271,900 cubic yards, and is permitted to accept 1,500 tons per day; however, the average daily disposal into the landfill is approximately 466 tons. As of November 2017, the remaining capacity of the Neal Road Facility is approximately 15,449,172 cubic yards, which would give the landfill a service life to the year 2048 (Neal Road Recycling & Waste Facility, 2017).

## Discussion

- a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

**No impact.** The project site is currently served by electric power (PG&E) and wireless phone service. The project would not result in the relocation or construction of new or expanded infrastructure including water services, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities.

- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

**Less than significant impact.** Domestic water to existing and planned uses on the resultant parcels would be provided by groundwater extraction via individual wells. Section 12.0 of the [Butte County Improvement Standards](#) outline the requirements of water supplies for proposed subdivisions and parcel maps. Proposed subdivisions located outside an urban area and more than a 1,000 feet from an existing public water system, may have its domestic water supplied by individual wells. The quantity and quality of the groundwater for the proposed development is reviewed by the Butte County Environmental Health Division by either a test well, a review of existing wells in the area, or a statement from a licensed well driller together with a report by an engineering geologist or hydrologist verifying that minimum well production for domestic purposes are achieved. Additionally, a well permit is required by the County to ensure well drilling standards are achieved and health and safety standards are met. Well production from new wells would be tested to determine if sufficient output it available for the anticipated uses to occur on the resultant parcels. Based on these reviews, existing groundwater supplies are anticipated to be available to the serve the proposed project, and no additional or expanded entitlements are required for groundwater extraction and use.

- c) 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?

**No impact.** Wastewater disposal for the proposed project would be provided by private, on-site septic systems. No wastewater treatment provider currently serves the project area. The project site has been evaluated for an on-site septic system and the resultant parcels were determined to have adequate soil conditions to allow for future development of an on-site wastewater system. .

- d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

**Less than significant impact.** Future development of the resultant parcels would result in a minor increase in the stream of household waste being deposited in the Neal Road Recycling and Waste Facility. The California Integrated Waste Management Board estimates that a typical residential household generates approximately 12 pounds of solid waste per day (4.9 pounds per person per day x average household size in Butte County (2.44)). The Neal Road Facility has a maximum permitted throughput of 1,500 tons per day, and an estimated current daily average throughout of 466 tons per day. Therefore, the facility would have adequate capacity to accommodate solid waste generated by the project.

- e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

**No impact.** The proposed project would comply with statutes and regulations related to solid waste. Waste generated by the proposed project would consist only of domestic refuse, which would be collected in approved trash bins and removed from the project site by a waste hauler or by the residents.

## 1.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XX. Wildfire.</b>				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	<input checked="" type="checkbox"/> Yes			<input type="checkbox"/> No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Environmental Setting

The project site has been designated as a very high fire hazard by the State Department of Forestry and Fire Protection. The project site is also within a designated State Responsibility Area (SRA), which means that the State has fiscal responsibility for preventing and suppressing wildfires.

## Discussion

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No impact.** There would be no lane closures involved in the proposed project that would constrict emergency access or interfere with an emergency evacuation plan.

- b) **Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**Less than significant impact.** The project site is located in an area that is susceptible to wildland fires. However, fires in the area have been extinguished quickly and contained to a relatively small area due to the conditions of the area. No conditions or factors have been identified in the project area that would exacerbate wildfire risks.

- c) **Require the installation 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?**

**Less than significant impact.** The proposed project includes improvements to upgrade an existing driveway serving two households into a road to serve resultant Parcel 2. Proposed road construction would be regulated by Public Resources Code 4290 and 4291, which establish standards for access, signage, maintenance of defensible space and vegetation management during and after road improvements. Due to the existing grassland conditions of the site, expanding the width of the road would act as a firebreak during fires, which would further assist in containing wildland fires. Therefore, proposed road construction would not exacerbate a fire risk.

- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No impact.** The project site is located within grasslands in the valley region of the County that contain slopes between 0 and 2 percent. The project area does not exhibit flooding potential (see discussion Section 1.10.d – Hydrology and Water Quality) or landslide potential (see discussion Section 1.7.a – Geology Soils). Therefore, no impacts from post-fire instability or drainage changes has been identified.

## 1.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XX. Mandatory Findings of Significance.</b>				
a) Does 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, substantially 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does 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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Discussion

- a) Does 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, substantially 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?

**Less than significant impact with mitigation incorporated.** The proposed project’s impacts to biological resources and cultural resources were analyzed in this Initial Study, and all direct, indirect, and cumulative impacts were determined to have no impact, a less than significant impact, or reduced to a less than significant impact with implementation of mitigation. No special status species were identified on the proposed development areas. Development of the proposed project would not cause fish or wildlife populations to drop below self-sustaining levels or restrict the movement/distribution of a rare or endangered species. Potential impacts to special-status species habitat would be mitigated to less than significant levels with implementation of **Mitigation Measure BIO-1**.

Development of the proposed project would not affect known historic, archaeological, or paleontological resources. There are no known unique ethnic or cultural values associated with the project site, nor are known religious or sacred uses associated with the project site. **Mitigation Measure CUL-1** has been identified to confirm the presence or absence of subsurface cultural resources on the project site. Additionally, the project

applicant is required to comply with [California Code of Regulations \(CCR\) Section 15064.5\(e\)](#), [California Health and Safety Code Section 7050.5](#), and [Public Resources Code \(PRC\) Section 5097.98](#) as a matter of policy in the event human remains are encountered at any time. Adherence to **Mitigation Measures CUL-1**, as well as regulations governing human remains, would reduce potential impacts to cultural and paleontological resources to less than significant with implementation of mitigation.

- b) Does 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.)

**Less than significant impact with mitigation incorporated.** The proposed project has either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated with respect to all environmental issues pursuant to CEQA. Due to the limited scope of direct physical impacts to the environment associated with the proposed project, the project’s impacts are primarily project-specific in nature.

The proposed project site is located within an area has been designated by the County for residential and agricultural uses. Short-term construction-related air quality impacts that would result from construction of the site improvements and build-out of the resultant parcels will be reduced to less than significant levels with implementation of **Mitigation Measure AIR-1**. **Mitigation Measure GHG-1**, identified in this Initial Study, would reduce potential impacts from the generation of greenhouse gas emissions to less than significant levels.

The cumulative effects resulting from build out of the Butte County General Plan 2030 were previously identified in the General Plan EIR. The type, scale, and location of the proposed project is consistent with County’s General Plan and zoning designation and is compatible with the pattern of development on adjacent properties. Because of this consistency, the potential cumulative environmental effects of the proposed project would fall within the impacts identified in the County’s General Plan EIR. Build-out of the resultant parcels is subject to required “fair share” development impact fees, which will be paid at the time of development.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

**Less than significant impact with mitigation incorporated.** There have been no impacts discovered through the review of this application demonstrating that there would be substantial adverse effects on human beings either directly or indirectly. However, the proposed project has the potential to cause both temporary and future impacts to the area by project-related impacts relating to air, biological, greenhouse gas emissions and cultural resources. With implementation of mitigation measures included in this Initial Study, these impacts would be effectively mitigated to a less than significant level.

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Authority for the Environmental Checklist: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.

Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

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# APPENDIX - A

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# **BIOLOGICAL RESOURCE ASSESSMENT**

Aquatic and Terrestrial Wildlife, and Botanical Resources

Clark TPM 18-0002 Southern Site

December 2018



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# BIOLOGICAL RESOURCE ASSESSMENT

## Clark TPM 18-0002 Southern Site

### Project Location:

Butte County, California  
Section 13 Township 23N Range 1W  
Nord USGS 7.5' Quadrangle

## INTRODUCTION

### Purpose and Overview

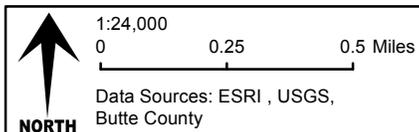
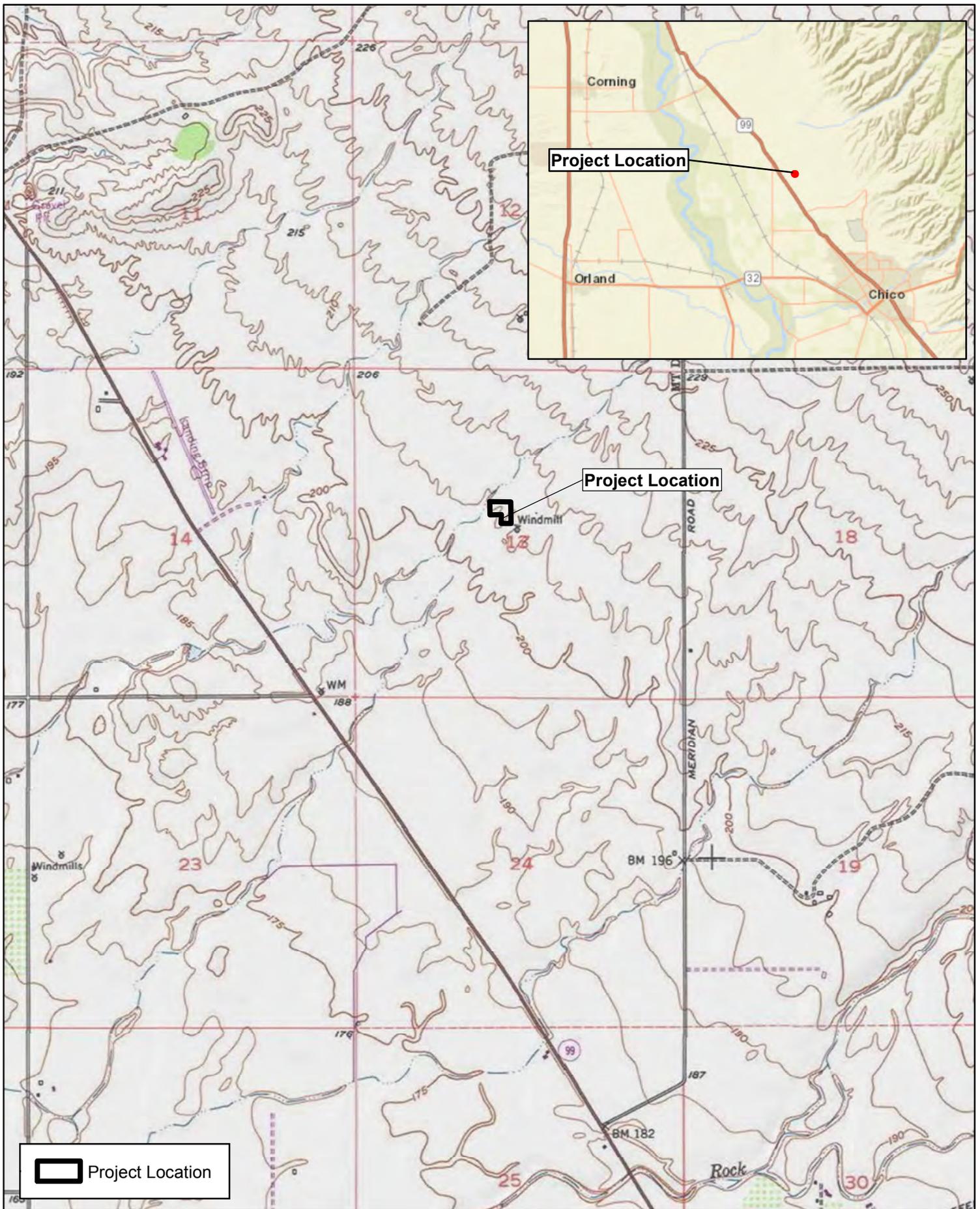
The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive and rare species, and their habitats that occur or may occur in the biological survey area (BSA) of the Clark Tentative parcel Map (TPM) 18-0002 Southern Site (Project) located on the north side of Will T Road north of the City of Chico, in Butte County, California (**Figure 1**). The Project area is approximately 2 acres. The proposed Project involves the recording of a TPM with a single family residence building envelope.

The BSA is the area where the focus of biological surveys are conducted (**Figure 2**). Gallaway Enterprises conducted a habitat assessment in the BSA to evaluate site conditions and potential for rare and special-status species to occur. Other primary references consulted include species lists and information gathered using the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of surveys, habitat assessments, and recommendations for avoidance and minimization measures.

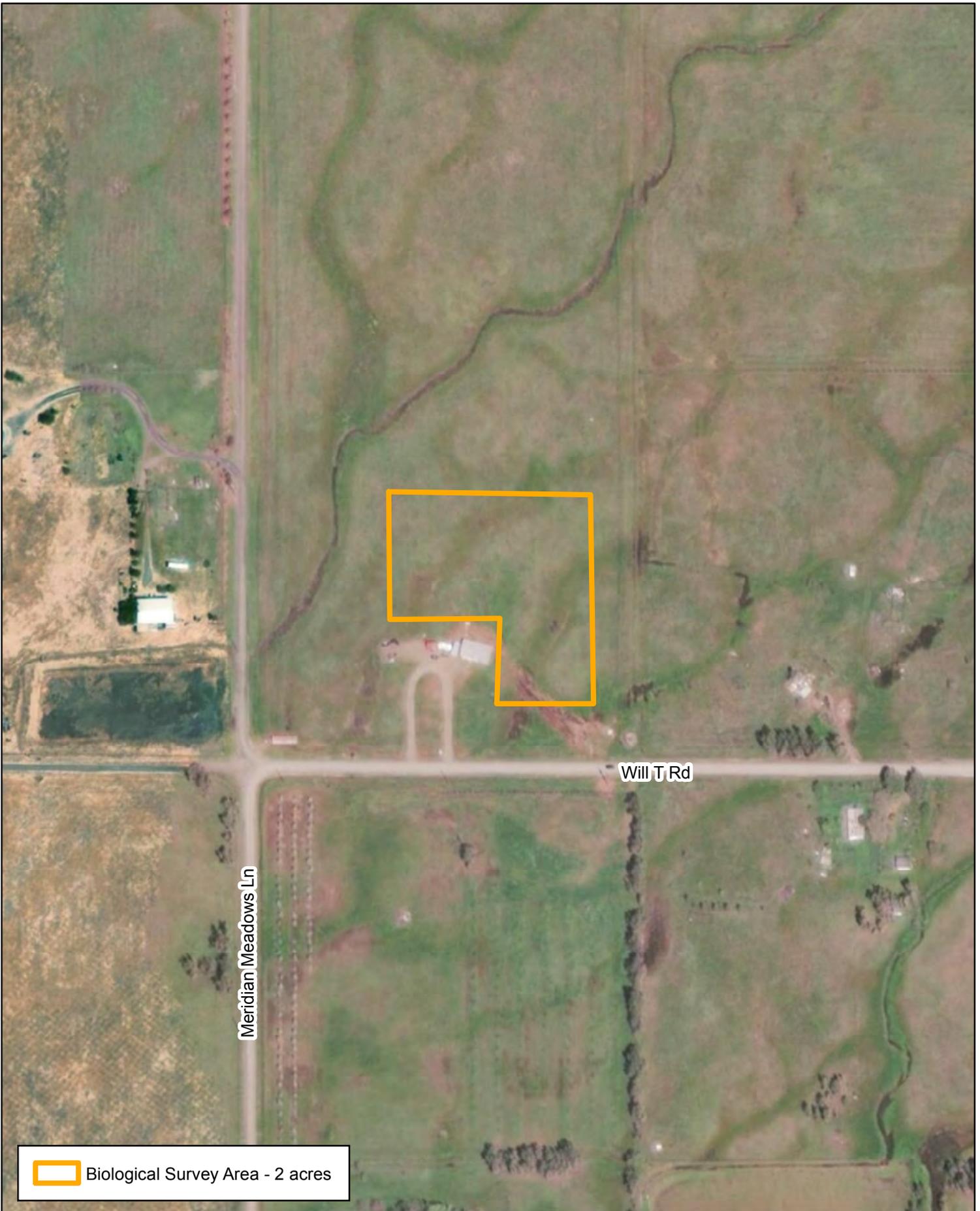
### Project Location and Environmental Setting

The Project is located just north of Will T Road north of the City of Chico, California, Latitude 39.84869, Longitude -121.9298, within the United States Geological Survey 7.5' "Nord, CA" quadrangle, Section 13, Township 23N, Range 1W. The site is relatively flat and is characterized as annual grassland. The Project is bound on all sides by annual grassland within the parcel boundary.

Soils within the Project range from gravelly loams to clay loams with a restrictive layer ranging from 20 to 40 inches in depth. The average annual precipitation for the area is 25.66 inches and the average temperature is 75.2° F (Western Regional Climate Center 2018).



Clark TPM18-0002 Southern Site  
 Regional Location  
 Figure 1



Will Tr Rd

Meridian Meadows Ln

 Biological Survey Area - 2 acres

  
1:2,500  
0 50 100 Feet  
Data Sources: ESRI, Butte County, DigitalGlobe 3/31/17

Clark TPM18-0002 Southern Site  
Biological Survey Area  
Figure 2

## Biological Survey Area

For the purposes of this BRA, the BSA is the area in which biological surveys are conducted. The BSA includes all the areas of the building envelope as defined by the Project engineer.

## Project Description

The proposed Project is currently in the tentative parcel mapping and planning stages but will likely result in the construction of a single family residence.

## METHODS

### References Consulted

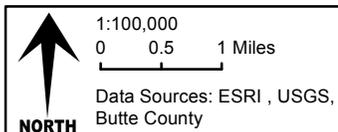
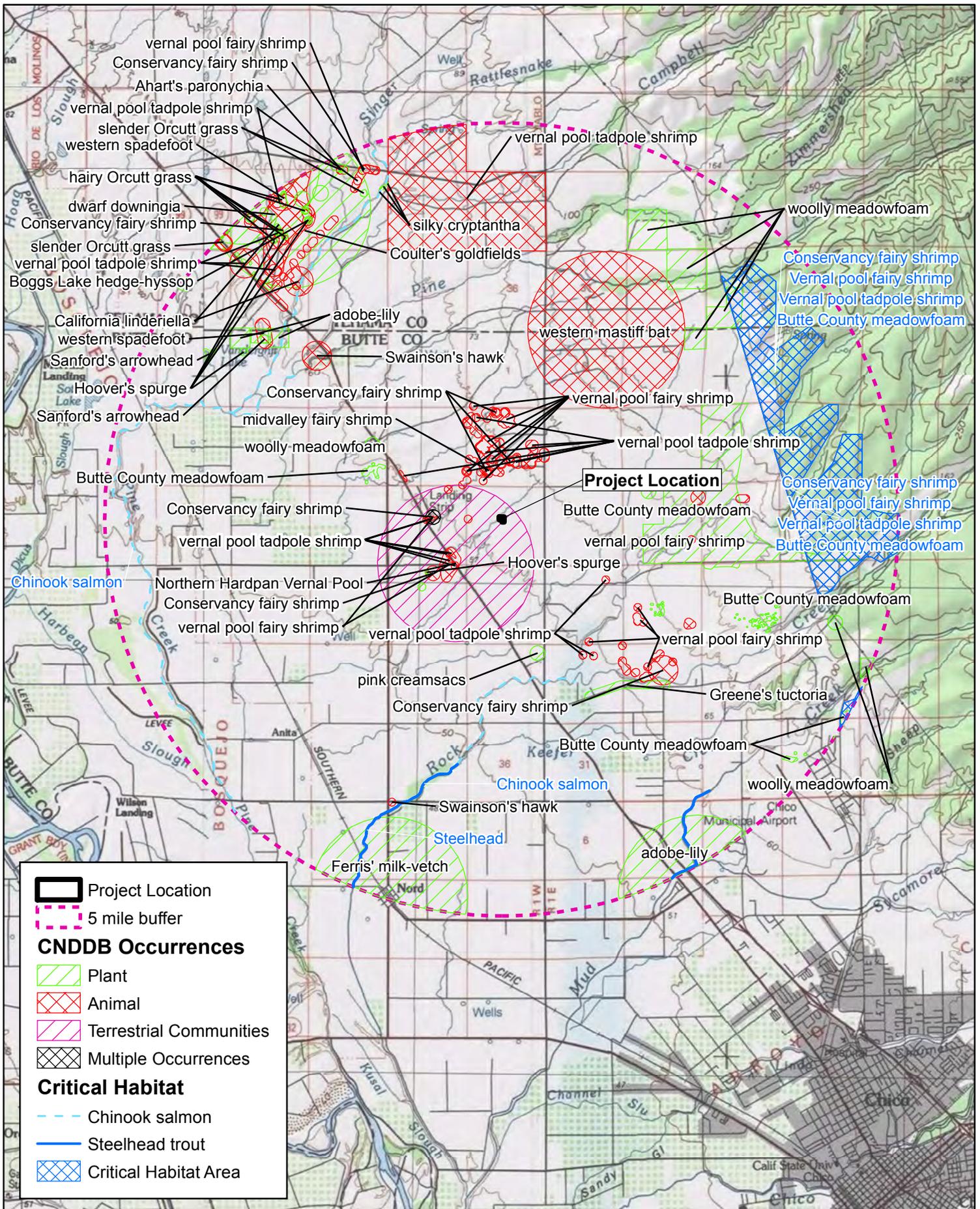
Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a five (5) mile radius of the BSA (**Figure 3**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed and candidate species, and their habitats within the BSA used in the preparation of this BRA are:

- The USFWS Official Species List for the BSA, November 13, 2018, (**Appendix A; Species Lists**);
- The results of a species record search of the CDFW CNDDDB, RareFind 5, for the 7.5 minute USGS “Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs, and Richardson Springs NW” quadrangles (**Appendix A; Species Lists**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS “Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs, and Richardson Springs NW” quadrangles (**Appendix A; Species Lists**);
- USFWS Critical Habitat Portal, November 13, 2018;
- Results from the field survey conducted by Gallaway Enterprises on November 20, 2018.

### Special-Status Species

Special-status species assessed as having the potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the CFGC (i.e. Fully Protected Species);
- Ranked by the CNPS as 1A, 1B, or 2;



Clark TPM18-002 Southern Site  
 CNDDDB Occurrences and Critical Habitat  
 Figure 3

- Protected under the Migratory Bird Treaty Act (MBTA) or California Fish and Game Code (CFGC) (§3503);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA, §15380).

## **Critical Habitat**

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species. The USFWS Critical Habitat Portal was accessed on November 13, 2018 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

## **Sensitive Natural Communities**

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated because they represent a historical landscape and are typically preserved as valued components of California's diverse habitat assemblage.

## **Waters of the United States**

During the habitat assessment Gallaway Enterprises assessed the BSA for the presence of waters of the United States (WOTUS).

## **Biological and Botanical Surveys**

A general biological and botanical survey was conducted on November 20, 2018 by Gallaway Enterprises Senior Botanist Elena Gregg, and Biologist Leah Cochran. The general survey consisted of a habitat assessment to determine the potential for special-status species and their habitats to occur within the BSA. The habitat assessment was conducted by walking all areas of the BSA and taking inventory of observed species and habitat elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns. A list of plant and wildlife species observed during the field survey is provided as **Appendix B**.

## RESULTS

### Vegetation Communities

#### Annual Grassland

Annual grassland is the dominant vegetation community within the BSA. The vast majority of the BSA had been mowed prior to the field visit (see site photos in **Appendix C**). Common species that were observable in the annual grassland were medusahead (*Elymus caput-medusae*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Festuca perennis*). This habitat type provides foraging ground for a variety of wildlife species and breeding habitat for several terrestrial reptiles, ground nesting birds, and fossorial mammals. A few seasonal wetlands were observed within the BSA during the field visit. Seasonal wetlands are non-tidal depression wetlands classified under the palustrine system. They tend to stay wet or ponded into late spring or early summer months and are typically dominated by generalist wetland plants and emergent wetland plants. The seasonal wetlands present within the BSA exhibited cracked soils (see site photos in **Appendix C**), were shallow, and densely vegetated with perennial ryegrass and Mediterranean barley (*Hordeum marinum* spp. *gussoneanum*). Aquatic wildlife species typically found in wetlands include a variety of invertebrates and amphibians.

#### Critical Habitat

There is no critical habitat within the BSA.

#### Sensitive Natural Communities

One (1) SNC has been mapped as overlapping with the BSA, the Northern Hardpan Vernal Pool SNC. Although this mapped SNC is depicted as overlapping into the BSA, there is no characteristic northern hardpan vernal pool habitat within the BSA. While there are a few wetlands within the BSA, these wetlands are more characteristic of seasonal wetlands and dominated by generalist wetland plant species. Therefore, no SNC actually occurs within the BSA.

#### Waters of the United States

A delineation of WOTUS was not conducted by Gallaway Enterprises, however, during the November 20, 2018 field visit, seasonal wetlands were observed within the BSA. The preparation of a formal delineation of WOTUS should be conducted within the BSA to confirm the presence, location and extent of WOTUS.

#### Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS, IPaC species list, CNDDDB, and the CNPS list of rare and endangered plants within the 7.5 minute USGS "Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs,

and Richardson Springs NW” quadrangles, are described in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies and evaluating habitat characteristics. Species were not included in the special-status species summary table if the habitat the species occurs in or the species’ range does not occur in the BSA.

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

**Table 1. Special-status Species and Sensitive Natural Communities and Their Potential to Occur in the BSA of the Clark TPM 18-0002 Southern Site, Butte County, CA.**

<b>Common Name</b> <i>(Scientific Name)</i>	<b>Status</b> Fed/State/CNPS	<b>Associated Habitats</b>	<b>Potential for Occurrence</b>
<b>SENSITIVE NATURAL COMMUNITIES</b>			
<b>Northern Hardpan Vernal Pool</b>	SNC	Grasslands with depressions and variable topography, clay and hardpan soils with poor drainage.	<u>None.</u> While this SNC is mapped within the BSA, there is no northern hardpan vernal pool habitat in the BSA.
<b>PLANTS</b>			
<b>Ferris’ Milk-vetch</b> <i>(Astragalus tener var. ferrisiae)</i>	_/_/1B.1	Meadows and seeps. Vernal mesic or subalkaline flats. Valley and foothill grassland. Blooms: Apr-May.	<u>None.</u> There is no suitable mesic habitat in the BSA.
<b>Pink Creamsacs</b> <i>(Castilleja rubicundula var. rubicundula)</i>	_/_/1B.2	Chaparral, Cismontane woodland, Meadow & seep, Ultramafic, Valley & foothill grassland. Blooms: Apr-Jun.	<u>None.</u> There is no suitable seep habitat in the BSA.
<b>Silky Cryptantha</b> <i>(Cryptantha crinita)</i>	_/_/1B.2	Streambeds with cobble substrate. Blooms: Apr-May.	<u>None.</u> There is no suitable streambed habitat in the BSA.
<b>Hoover’s Spurge</b> <i>(Euphorbia hooveri)</i>	FT/_/1B.2	Vernal pools. Blooms: Jul-Sep(Oct).	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
<b>Adobe-lily</b> <i>(Fritillaria pluriflora)</i>	_/_/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Adobe. Blooms: Feb-Apr.	<u>None.</u> There are no adobe soils in the BSA.
<b>Boggs Lake Hedge-hyssop</b> ( <i>Gratiola heterosepala</i> )	_/_/SE/1B.2	Marshes, swamps, vernal pools. Blooms: Apr-Aug.	<u>None.</u> There is no suitable vernal pool habitat in the BSA.

PLANTS			
<b>Coulter's Goldfields</b> ( <i>Lasthenia glabrata</i> <i>ssp. coulteri</i> )	_/_/1B.1	Marshes, swamps, playas, vernal pools. Blooms: Feb-Jun.	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
<b>Butte County Meadowfoam</b> ( <i>Limnanthes</i> <i>floccosa ssp.</i> <i>californica</i> )	FE/SE/1B.1	Vernal pools. Valley and foothill grasslands. Blooms: Mar-May.	<u>None.</u> There is no suitable vernal pool habitat and no suitable soils in the BSA.
<b>Hairy Orcutt Grass</b> ( <i>Orcuttia pilosa</i> )	FE/SE/1B.1	Vernal pools. Blooms: May-Sep.	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
<b>Slender Orcutt Grass</b> ( <i>Orcuttia tenuis</i> )	FT/SE/1B.1	Vernal pool, Wetland. Blooms: May-Sep(Oct).	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
<b>Ahart's Paronychia</b> ( <i>Paronychia ahartii</i> )	_/_/1B.1	Cismontane woodland, valley and foothill grassland, vernal pools. Blooms: Feb-Jun.	<u>None.</u> There is no suitable mesic or vernal habitat in the BSA.
<b>Sanford's Arrowhead</b> ( <i>Sagittaria sanfordii</i> )	_/_/1B.2	Shallow freshwater marshes and swamps. Blooms: May-Oct(Nov).	<u>None.</u> There is no suitable marsh habitat in the BSA.
<b>Greene's Tuctoria</b> ( <i>Tuctoria greenei</i> )	FE/_/1B.1	Vernal pools. Blooms: May-Jul (Sep).	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
<b>Slender Orcutt Grass</b> ( <i>Orcuttia tenuis</i> )	FT/SE/1B.1	Gravelly vernal pools. Blooms: May-Jul(Sep).	<u>None.</u> There is no suitable vernal pool habitat in the BSA.
INVERTEBRATES			
<b>Conservancy Fairy Shrimp</b> ( <i>Branchinecta</i> <i>conservatio</i> )	FE/_/_	Vernal pools and seasonally ponded areas.	<u>None.</u> There are no wetlands with suitable vernal pool hydrology required for this species in the BSA.
<b>Valley Elderberry Longhorn Beetle</b> ( <i>Desmocerus</i> <i>californicus</i> <i>dimorphus</i> )	FT/_/_	Blue elderberry shrubs usually associated with riparian areas.	<u>None.</u> There are no elderberry shrubs within the BSA.

INVERTEBRATES			
<b>Vernal Pool Fairy Shrimp</b> ( <i>Branchinecta lynchi</i> )	FT/_/_	Vernal pools and seasonally ponded areas.	<u>Moderate.</u> There is marginal habitat within the seasonal wetlands present in the BSA.
<b>Vernal Pool Tadpole Shrimp</b> ( <i>Lepidurus packardii</i> )	FE/_/_	Deep vernal pools.	<u>None.</u> There are no wetlands with suitable vernal pool hydrology required for this species in the BSA.
FISH			
The BSA does not support any habitat for federally listed fish species due to the lack of streams and drainages.			
AMPHIBIANS			
<b>California Red-legged Frog</b> ( <i>Rana draytonii</i> )	FT/SSC/_	Ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsid es with plant cover.	<u>None.</u> There is no suitable breeding habitat within the BSA and CRLFs have been extirpated from the Central Valley since 1960 (USFWS 2002).
<b>Foothill Yellow-legged Frog</b> ( <i>Rana boylei</i> )	_/SC/_	Streams with consistent flow, slow side waters with cobble and boulders for oviposition.	<u>None.</u> There is no suitable habitat within the BSA.
<b>Western Spadefoot</b> ( <i>Spea hammondi</i> )	_/SSC/_	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland.	<u>None.</u> There is no suitable breeding habitat within the BSA.
REPTILES			
<b>Giant Garter Snake</b> ( <i>Thamnophis gigas</i> )	FT/ST/_	Wetland marshes, sloughs, rice paddies and associated irrigation canals.	<u>None.</u> There is no suitable habitat within the BSA.
BIRDS			
<b>Swainson's Hawk</b> ( <i>Buteo swainsoni</i> )	_/ST/_	Nests in large trees in open habitat with sparsely dispersed clumps of trees.	<u>None.</u> Suitable nesting trees were not observed in or near the BSA. No active nests have been observed within 10 miles of the BSA within the last 5 years.

BIRDS			
<b>Yellow-billed Cuckoo</b> ( <i>Coccyzus americanus spp. occidentalis</i> )	FT/SE/_	Nesting requires thick riparian vegetation, especially willows, in valley foothill river bottoms and mesic habitats.	<u>None.</u> There is no suitable habitat within the BSA nor are there riparian zones near the BSA.
<b>Burrowing Owl</b> ( <i>Athene cunicularia</i> )	_/SSC/_	Crepuscular species, nesting sites are burrows found in culverts, hilly mounds, and cut banks of dry waterways in open grasslands and shrublands.	<u>None.</u> Existing burrows within the BSA are not suitable for burrowing owl nesting.
MAMMALS			
<b>Western Mastiff Bat</b> ( <i>Eumops perotis californicus</i> )	_/SSC/_	Roosts in crevices in cliffs, trees, and tunnels. Nursery roosts in small crevices in rock or buildings.	<u>None.</u> There is no suitable roosting habitat within the BSA.

CODE DESIGNATIONS	
<b>FE</b> = Federally-listed Endangered <b>FT</b> = Federally-listed Threatened <b>FC</b> = Federal Candidate Species <b>MBTA</b> = Protected by the federal Migratory Bird Treaty Act  <b>SE</b> = State-listed Endangered <b>ST</b> = State-listed Threatened <b>SC</b> = State Candidate for Listing as Threatened or Endangered <b>SR</b> = State-listed Rare <b>SSC</b> = State Species of Special Concern  <b>S1</b> = State Critically Imperiled <b>S2</b> = State Imperiled <b>S3</b> = State Vulnerable <b>S4</b> = State Apparently Secure	<b>FP</b> =CDFW Fully Protected Species <b>SNC</b> = CDFW Sensitive Natural Community  <b>CRPR 1B</b> = Rare or Endangered in California or elsewhere <b>CRPR 2</b> = Rare, Threatened or Endangered in California, more common elsewhere <b>CRPR 3</b> = More information is needed <b>CRPR 4</b> = Plants with limited distribution, not considered rare, threatened or endangered  <b>0.1</b> = Seriously Threatened <b>0.2</b> = Fairly Threatened <b>0.3</b> = Not very Threatened
<p><b>Potential for Occurrence:</b> Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:</p> <p><b>None:</b> The species or natural community does not occur, and has no potential to occur in the BSA based on sufficient surveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.</p> <p><b>Low:</b> Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.</p> <p><b>Moderate:</b> Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA. Pre-construction surveys may be required.</p> <p><b>High:</b> Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required.</p> <p><b>Known:</b> Species was detected in the BSA or a recent reliable record exists for the BSA.</p>	

### **Endangered, Threatened and Rare Plants**

Based on the habitat assessment conducted in the field, no suitable habitat for special-status plant species occurs within the BSA. The wetlands observed on the site were seasonal, dominated by dense perennial rye-grass and did not contain vernal pool endemic species, indicating a lack of vernal pool hydrology needed for special-status plant species that occur in vernal pools. Also, there was a lack of suitable soils within the BSA for many of the special status plant species identified in **Table 1** below. There were no endangered, threatened or rare plants observed within the BSA during the field visit. A list of the plant species observed during the field survey is provided in **Appendix B**.

### **Endangered, Threatened and Special Status Wildlife**

A wildlife habitat assessment was conducted within the BSA on November 20, 2018. Suitable habitat was identified for several avian species protected under the MBTA, including the western meadowlark. The BSA provides ample foraging habitat, but no nesting habitat, for raptor species such as the state listed Swainson's hawk. The shallow wetland features present within the BSA provide marginal habitat for vernal pool fairy shrimp, however, due to their shallow depth, these features lack suitable hydrology for vernal pool tadpole shrimp and vernal pool conservancy shrimp.

### **Migratory Birds and Raptors**

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (§3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### ***CNDDB Occurrences***

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDB because they are abundant and widespread.

### ***Status of Migratory Birds and Raptors Occurring in the BSA***

There is suitable nesting habitat for a variety of ground and shrub nesting avian species throughout the BSA. A high diversity of avian species has the potential to nest in the BSA based on the variety of habitat

types. A list of the bird species observed flying through or utilizing the BSA during the field survey is provided as **Appendix B**.

### **Vernal Pool Fairy Shrimp**

Vernal pool fairy shrimp are listed under the ESA as threatened. They are widespread but not abundant. Known populations occur in California to southern Oregon. The geographic range of this species encompasses most of the Central Valley from Shasta County to Tulare County and the central coast range from northern Solano County to Santa Barbara County, California: additional disjunctive occurrences have been identified in western Riverside County, California, and in Jackson County, Oregon, near the city of Medford. The vernal pool fairy shrimp occupies a variety of different vernal pool habitats, from small, clear, sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. Occupied habitats range in size from rock outcrops pools as small as one square meter to large vernal pools up to 12 acres. Smaller vernal pools are the most commonly occupied and are found more frequently in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands (USFWS 2005).

#### ***CNDDB Occurrences***

There are multiple CNDDB occurrences of vernal pool fairy shrimp (CNDDB occurrence # 94, 95, 688 and 884) within one (1) mile of the BSA.

#### ***Status of Vernal Pool Fairy Shrimp Occurring in the BSA***

There is marginal habitat for vernal pool fairy shrimp within the shallow seasonal wetlands within the BSA. Gallaway Enterprises has not been made aware of any previous protocol-level surveys conducted within the BSA for listed vernal pool invertebrates; however, there are a number of known CNDDB occurrences of vernal pool fairy shrimp within close proximity to the BSA. As such, there is a moderate potential for vernal pool fairy shrimp to occur within the BSA.

## **REGULATORY FRAMEWORK**

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

### **Federal**

#### **Waters of the United States, Clean Water Act, Section 404**

The Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean

Water Act (§404). The term “waters of the United States” is an encompassing term that includes “wetlands” and “other waters.” Wetlands have been defined for regulatory purposes as follows: “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas.” other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

### **Clean Water Act, Section 401**

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

### **Federal Endangered Species Act**

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are

eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

### **Migratory Bird Treaty Act**

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately February 1 through August 31 in the Central Valley). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

## **State of California**

### **California Endangered Species Act**

The CESA is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

### **California Fish and Game Code (§3503.5)**

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### **Lake and Streambed Alteration Agreement, CFGC (§1602)**

The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The California Fish and Game Code (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds except when the department has been notified pursuant to Section 1601.” If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

### **Rare and Endangered Plants**

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to

retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the 'take' prohibition "the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way."

### **California Environmental Quality Act Guidelines §15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Endangered, Threatened, and Special-status Wildlife**

#### **Migratory Birds and Raptors**

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
  - A qualified biologist will conduct a pre-construction survey within and 250 feet adjacent to the BSA, where accessible, within 7 days prior to the start of Project activities.
  - If an active nest (i.e. containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

### **Vernal Pool Invertebrates**

The wetlands within the BSA provide marginal habitat for vernal pool fairy shrimp. As such, these wetlands should be avoided. If avoidance is not feasible, vernal pool fairy shrimp should be assumed to be present unless protocol-level surveys are conducted to determine their presence or absence. If protocol-level surveys are conducted, the protocol will require one wet-season survey and one dry-season survey. If vernal pool fairy shrimp are assumed to be present, mitigation will be required for the loss of species habitat. Section 7 consultation with the USFWS will be required.

### **Seasonal Wetlands**

Under the Clean Water Act (§404) and (§401), if impacts to WOTUS occur, water quality certification and authorization for placement of dredged or fill material in wetlands must be obtained through the Army Corps of Engineers.

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# Appendix A

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Species Lists

## Plant List

### Inventory of Rare and Endangered Plants

35 matches found. [Click on scientific name for details](#)

#### Search Criteria

Found in Quads 3912281, 3912188, 3912187, 3912271, 3912178, 3912177, 3912261, 3912168 and 3912167;  
Elevation is below 1000 feet

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Astragalus pauperculus</a>	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	4.3	S4	G4
<a href="#">Astragalus tener var. ferrisiae</a>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
<a href="#">Balsamorhiza macrolepis</a>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
<a href="#">Calycadenia oppositifolia</a>	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	4.2	S3	G3
<a href="#">Campylopodia stenocarpa</a>	flagella-like atractylocarpus	Dicranaceae	moss		2B.2	S1?	G5
<a href="#">Castilleja rubicundula var. rubicundula</a>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
<a href="#">Clarkia gracilis ssp. albicaulis</a>	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
<a href="#">Cryptantha crinita</a>	silky cryptantha	Boraginaceae	annual herb	Apr-May	1B.2	S2	G2
<a href="#">Cryptantha rostellata</a>	red-stemmed cryptantha	Boraginaceae	annual herb	Apr-Jun	4.2	S3	G4
<a href="#">Downingia pusilla</a>	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
<a href="#">Erythranthe glaucescens</a>	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	4.3	S3S4	G3G4
<a href="#">Euphorbia hooveri</a>	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
<a href="#">Fritillaria eastwoodiae</a>	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
<a href="#">Fritillaria pluriflora</a>	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
<a href="#">Gratiola heterosepala</a>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
<a href="#">Hesperex caulescens</a>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	4.2	S3	G3
<a href="#">Hibiscus lasiocarpus var. occidentalis</a>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
<a href="#">Imperata brevifolia</a>	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
<a href="#">Juncus leiospermus var. leiospermus</a>	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2

<a href="#">Lasthenia glabrata ssp. coulteri</a>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
<a href="#">Limnanthes floccosa ssp. californica</a>	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	1B.1	S1	G4T1
<a href="#">Limnanthes floccosa ssp. floccosa</a>	woolly meadowfoam	Limnanthaceae	annual herb	Mar-May(Jun)	4.2	S3	G4T4
<a href="#">Monardella venosa</a>	veiny monardella	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1
<a href="#">Navarretia heterandra</a>	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
<a href="#">Navarretia nigelliformis ssp. nigelliformis</a>	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
<a href="#">Orcuttia pilosa</a>	hairy Orcutt grass	Poaceae	annual herb	May-Sep	1B.1	S1	G1
<a href="#">Orcuttia tenuis</a>	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	1B.1	S2	G2
<a href="#">Paronychia ahartii</a>	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	1B.1	S3	G3
<a href="#">Polygonum bidwelliae</a>	Bidwell's knotweed	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
<a href="#">Rhynchospora californica</a>	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
<a href="#">Sagittaria sanfordii</a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
<a href="#">Sidalcea robusta</a>	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2
<a href="#">Stuckenia filiformis ssp. alpina</a>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S3	G5T5
<a href="#">Tuctoria greenei</a>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1
<a href="#">Wolffia brasiliensis</a>	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr,Dec	2B.3	S1	G5

### Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 13 November 2018].

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#### Questions and Comments

[rareplants@cnps.org](mailto:rareplants@cnps.org)



# Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Nord (3912178) OR Richardson Springs (3912177) OR Richardson Springs NW (3912188) OR Campbell Mound (3912187) OR Vina (3912281) OR Hamilton City (3912261) OR Foster Island (3912271) OR Ord Ferry (3912168) OR Chico (3912167)) AND Elevation IS less than or equal to "1000"

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>Agelaius tricolor</b> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<b>Anthicus antiochensis</b> Antioch Dunes anthicid beetle	IICOL49020	None	None	G1	S1	
<b>Anthicus sacramento</b> Sacramento anthicid beetle	IICOL49010	None	None	G1	S1	
<b>Antrozous pallidus</b> pallid bat	AMACC10010	None	None	G5	S3	SSC
<b>Ardea alba</b> great egret	ABNGA04040	None	None	G5	S4	
<b>Ardea herodias</b> great blue heron	ABNGA04010	None	None	G5	S4	
<b>Astragalus tener var. ferrisiae</b> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<b>Athene cunicularia</b> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<b>Branchinecta conservatio</b> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<b>Branchinecta lynchi</b> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<b>Branchinecta mesovallensis</b> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<b>Buteo swainsoni</b> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<b>Campylopodia stenocarpa</b> flagella-like atractylocarpus	NBMUS84010	None	None	G5	S1?	2B.2
<b>Castilleja rubicundula var. rubicundula</b> pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
<b>Central Valley Drainage Fall Run Chinook Stream</b> Central Valley Drainage Fall Run Chinook Stream	CARA2442CA	None	None	GNR	SNR	
<b>Central Valley Drainage Hardhead/Squawfish Stream</b> Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
<b>Central Valley Drainage Valley Floor River</b> Central Valley Drainage Valley Floor River	CARA2441CA	None	None	GNR	SNR	
<b>Coastal and Valley Freshwater Marsh</b> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Coccyzus americanus occidentalis</i></b> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<b><i>Cryptantha crinita</i></b> silky cryptantha	PDBOR0A0Q0	None	None	G2	S2	1B.2
<b><i>Desmocerus californicus dimorphus</i></b> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<b><i>Emys marmorata</i></b> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<b><i>Erethizon dorsatum</i></b> North American porcupine	AMAFJ01010	None	None	G5	S3	
<b><i>Eumops perotis californicus</i></b> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<b><i>Euphorbia hooveri</i></b> Hoover's spurge	PDEUP0D150	Threatened	None	G1	S1	1B.2
<b><i>Fritillaria eastwoodiae</i></b> Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
<b><i>Fritillaria pluriflora</i></b> adobe-lily	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
<b><i>Gratiola heterosepala</i></b> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<b>Great Valley Cottonwood Riparian Forest</b> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<b>Great Valley Mixed Riparian Forest</b> Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
<b>Great Valley Valley Oak Riparian Forest</b> Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
<b>Great Valley Willow Scrub</b> Great Valley Willow Scrub	CTT63410CA	None	None	G3	S3.2	
<b><i>Haliaeetus leucocephalus</i></b> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<b><i>Hibiscus lasiocarpus var. occidentalis</i></b> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<b><i>Imperata brevifolia</i></b> California satintail	PMPOA3D020	None	None	G4	S3	2B.1
<b><i>Lasionycteris noctivagans</i></b> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<b><i>Lasiurus blossevillii</i></b> western red bat	AMACC05060	None	None	G5	S3	SSC
<b><i>Lasiurus cinereus</i></b> hoary bat	AMACC05030	None	None	G5	S4	
<b><i>Lasthenia glabrata ssp. coulteri</i></b> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Laterallus jamaicensis coturniculus</i></b> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<b><i>Lepidurus packardi</i></b> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<b><i>Limnanthes floccosa ssp. californica</i></b> Butte County meadowfoam	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
<b><i>Limnanthes floccosa ssp. floccosa</i></b> woolly meadowfoam	PDLIM02043	None	None	G4T4	S3	4.2
<b><i>Linderiella occidentalis</i></b> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<b><i>Myotis yumanensis</i></b> Yuma myotis	AMACC01020	None	None	G5	S4	
<b>Northern Hardpan Vernal Pool</b> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<b>Northern Volcanic Mud Flow Vernal Pool</b> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<b><i>Oncorhynchus tshawytscha pop. 6</i></b> chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
<b><i>Oncorhynchus tshawytscha pop. 7</i></b> chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5	S1	
<b><i>Orcuttia pilosa</i></b> hairy Orcutt grass	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
<b><i>Orcuttia tenuis</i></b> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<b><i>Pandion haliaetus</i></b> osprey	ABNKC01010	None	None	G5	S4	WL
<b><i>Paronychia ahartii</i></b> Ahart's paronychia	PDCAR0L0V0	None	None	G3	S3	1B.1
<b><i>Rana boylei</i></b> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<b><i>Rhynchospora californica</i></b> California beaked-rush	PMCYP0N060	None	None	G1	S1	1B.1
<b><i>Riparia riparia</i></b> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<b><i>Sagittaria sanfordii</i></b> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<b><i>Sidalcea robusta</i></b> Butte County checkerbloom	PDMAL110P0	None	None	G2	S2	1B.2
<b><i>Spea hammondi</i></b> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<b><i>Stuckenia filiformis ssp. alpina</i></b> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2



**Selected Elements by Scientific Name**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Species</b>	<b>Element Code</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Global Rank</b>	<b>State Rank</b>	<b>Rare Plant Rank/CDFW SSC or FP</b>
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Tuctoria greenei</i> Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Wolffia brasiliensis</i> Brazilian watermeal	PMLEM03020	None	None	G5	S2	2B.3

**Record Count: 64**



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:  
Consultation Code: 08ESMF00-2019-SLI-0321  
Event Code: 08ESMF00-2019-E-00958  
Project Name: Clark Development

November 13, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

## To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

---

Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0321

Event Code: 08ESMF00-2019-E-00958

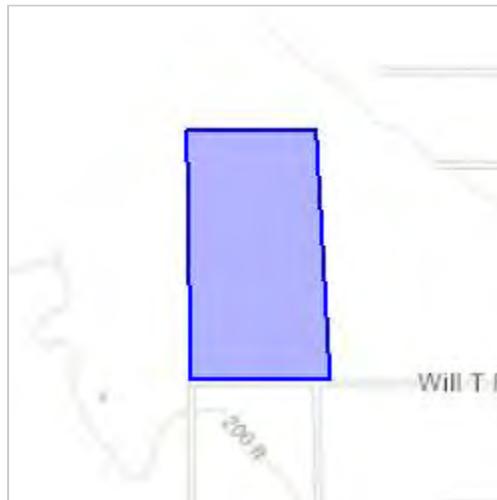
Project Name: Clark Development

Project Type: DEVELOPMENT

Project Description: Grading and construction of home, approx 40 acre land parcel

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.85132210575614N121.93343080935477W>



Counties: Butte, CA

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## Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>proposed</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

### Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

### Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

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## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Flowering Plants

NAME	STATUS
Butte County Meadowfoam <i>Limnanthes floccosa ssp. californica</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/4223">https://ecos.fws.gov/ecp/species/4223</a>	Endangered
Greene's Tuctoria <i>Tuctoria greenei</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1573">https://ecos.fws.gov/ecp/species/1573</a>	Endangered
Hoover's Spurge <i>Chamaesyce hooveri</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3019">https://ecos.fws.gov/ecp/species/3019</a>	Threatened
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1063">https://ecos.fws.gov/ecp/species/1063</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# Appendix B

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Observed Species

**Plant Species Observed within the Southern Project Site 11/20/ 2018**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Avena barbata</i>	Wild oats
<i>Bromus hordeaceus</i>	Soft chess
<i>Centaurea solstitialis</i>	Yellow star thistle
<i>Centromadia fitchii</i>	Fitch's spikeweed
<i>Convolvulus arvensis</i>	Bindweed
<i>Croton setiger</i>	Turkey-mullein
<i>Deschampsia danthonoides</i>	Annual hairgrass
<i>Elymus caput-medusae</i>	Medusahead
<i>Epilobium brachycarpum</i>	Tall willowherb
<i>Erodium botrys</i>	Long-beaked stork's-bill
<i>Erodium brachycarpum</i>	Foothill filaree
<i>Festuca perennis</i>	Rye-grass
<i>Galium aparine</i>	Bedstraw
<i>Hordeum marinum ssp. gussoneanum</i>	Mediterranean barley
<i>Lactuca serriola</i>	Prickly lettuce
<i>Leontodon saxatilis</i>	Hawkbit
<i>Lupinus sp.</i>	Sky lupine
<i>Plagiobothrys stipitatus</i>	Popcornflower
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass
<i>Rumex crispus</i>	Curly dock
<i>Trifolium hirtum</i>	Rose clover
<i>Trifolium willdenovii</i>	Wildcat clover
<i>Vicia villosa</i>	Winter vetch

**Wildlife Species Observed within the Southern Project Site 11/20/2018**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Sturnella neglecta</i>	Western Meadowlark
<i>Passerculus sandwichensis</i>	Savannah Sparrow
<i>Spinus psaltria</i>	Lesser Goldfinch
<i>Haemorhous mexicanus</i>	House Finch
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Cathartes aura</i>	Turkey Vulture
<i>Tyto alba</i>	Barn Owl (field evidence)
<i>Thomomys bottae</i>	Pocket gopher (field evidence)

# Appendix C

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Site Photos Taken November 20, 2018



Overview of annual grassland habitat facing northwest.



Example of cracked soil in seasonal wetland area.



Example of mowed grassland with numerous gopher burrows facing west.

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# APPENDIX - B

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# BIOLOGICAL RESOURCE ASSESSMENT

Aquatic and Terrestrial Wildlife, and Botanical Resources

Clark TPM 18-0002 Northern Site

December 2018



Prepared for:

Dudley and Judith Clark  
5000 Will T Road  
Chico, CA 95973

Prepared by:

**Gallaway Enterprises**  
117 Meyers Street, Suite 120  
Chico CA 95928  
530-332-9909  
[www.gallawayenterprises.com](http://www.gallawayenterprises.com)

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# BIOLOGICAL RESOURCE ASSESSMENT

## Clark TPM 18-0002 Northern Site

### Project Location:

Butte County, California  
Section 13 Township 23N Range 1W  
Nord USGS 7.5' Quadrangle

## INTRODUCTION

### Purpose and Overview

The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive and rare species, and their habitats that occur or may occur in the biological survey area (BSA) of the Clark TPM 18-0002 Northern Site (Project) located off of Will T Road north of the City of Chico in Butte County, California (**Figure 1**). The Project area is approximately 1.9 acres. The proposed Project involves the construction of a single-family residential home.

The BSA is the area where the focus of biological surveys are conducted (**Figure 2**). Gallaway Enterprises conducted a habitat assessment in the BSA to evaluate site conditions and potential for rare and special-status species to occur. Other primary references consulted include species lists and information gathered using the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of surveys, habitat assessments, and recommendations for avoidance and minimization measures.

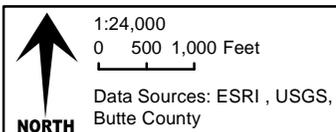
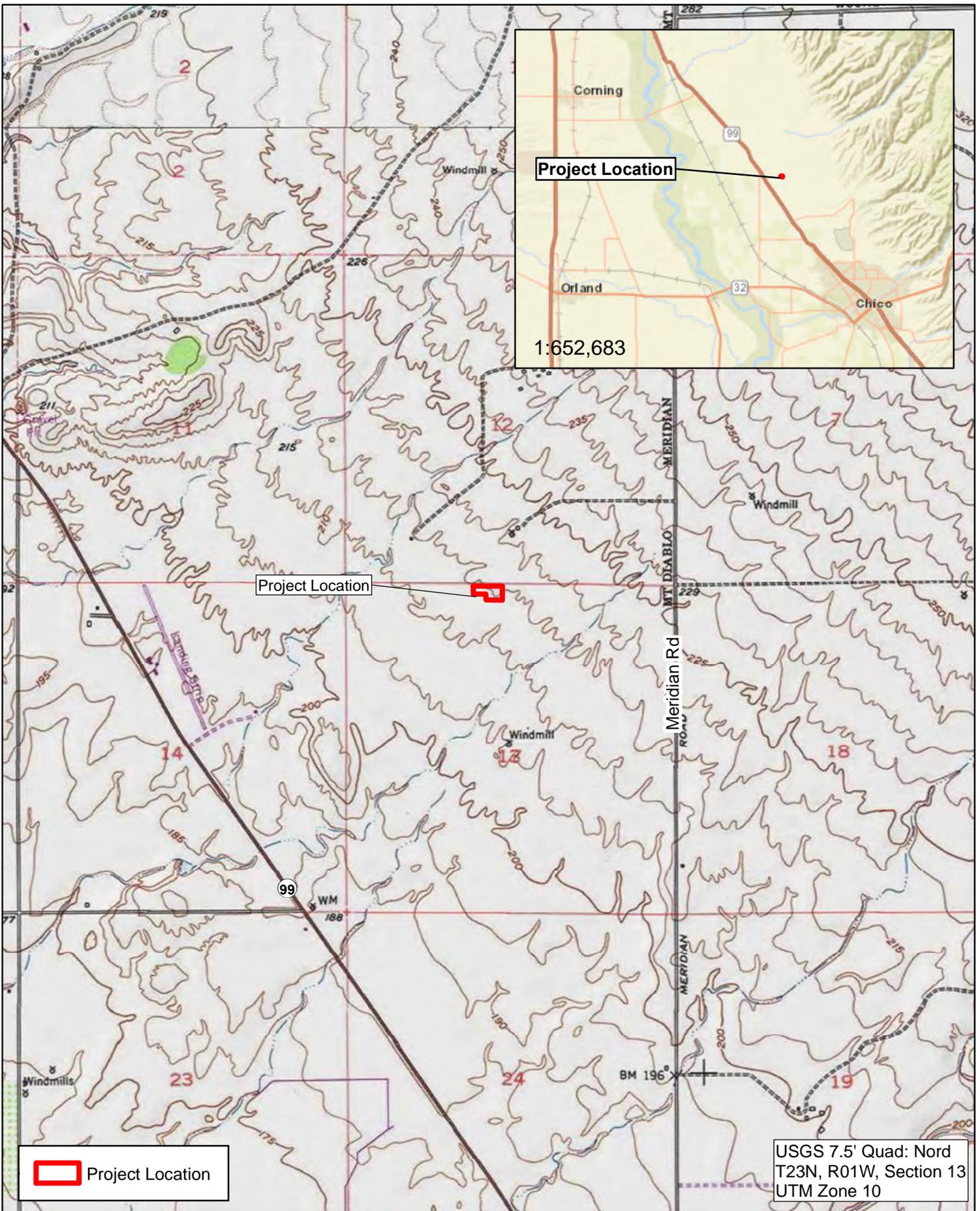
### Project Location and Environmental Setting

The Project is located off of Will T Road north of the City of Chico, California, Latitude 39.854361, Longitude -121.92999, within the United States Geological Survey (USGS) 7.5' "Nord, CA" quadrangle, Township 23N, Range 1W, Section 13. The site is relatively flat and is characterized as annual grassland. The Project is bound on all sides by annual grassland within the parcel boundary.

Soils within the Project range from gravelly loam to clay loams with a restrictive layer occurring 20 to 40 inches in depth. The average annual precipitation for the area is 25.66 inches and the average temperature is 75.2° F (Western Regional Climate Center 2018).

### Biological Survey Area

For the purposes of this BRA, the BSA is the area in which biological surveys are conducted. The BSA includes all the areas of the building envelope as defined by the Project engineer.

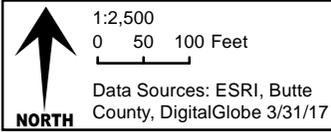


Clark TPM18-0002 Northern Site  
Regional Location  
Figure 1



Jake Rd

 Biological Survey Area - 1.9 acres



Clark TPM18-0002 Northern Site  
Biological Survey Area  
Figure 2

## Project Description

The proposed Project is currently in the tentative parcel mapping and planning stages but will likely result in the construction of a single family residence.

## METHODS

### References Consulted

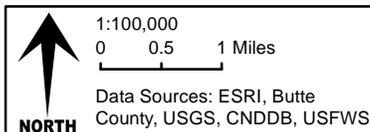
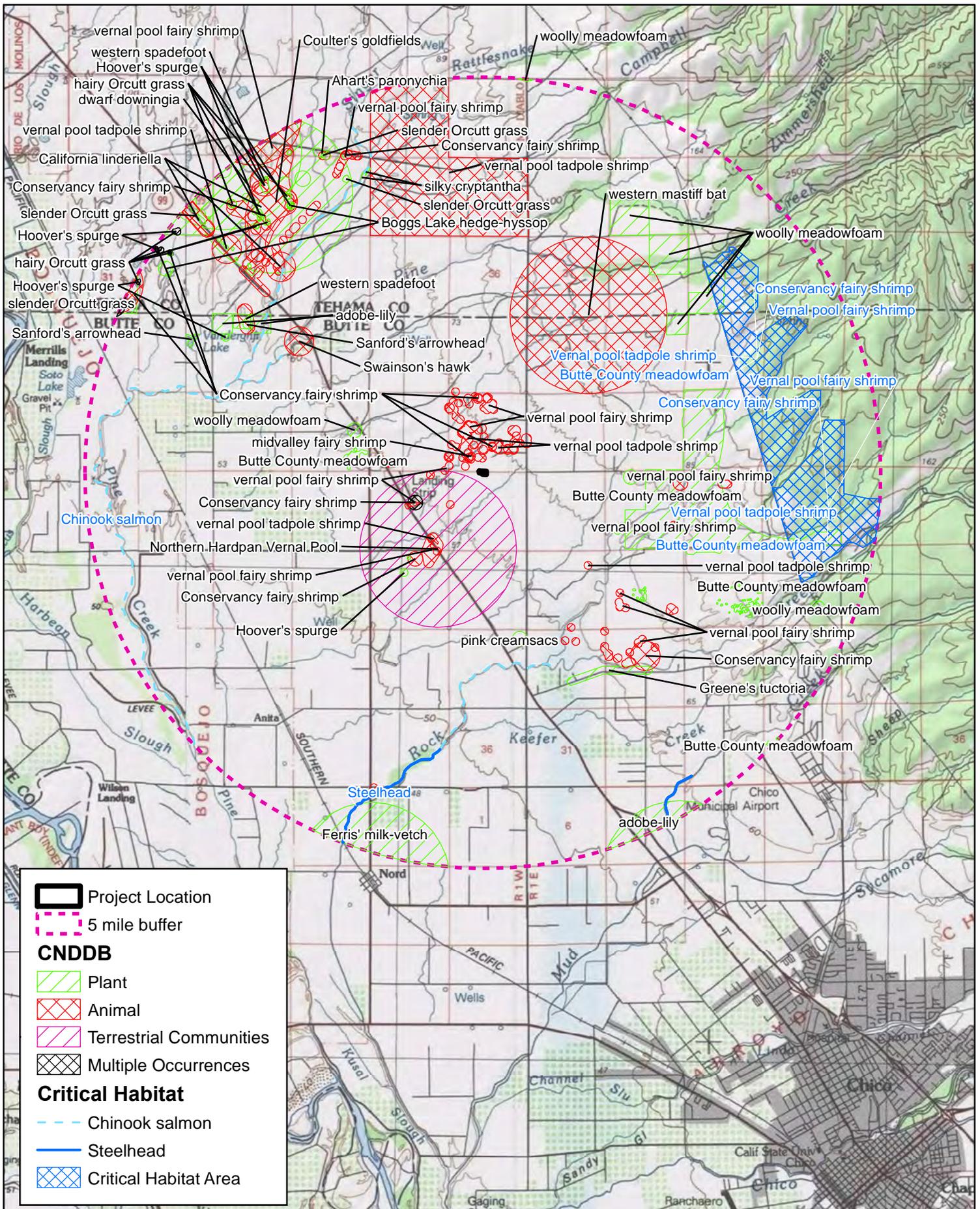
Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a five (5) mile radius of the BSA (**Figure 3**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed and candidate species, and their habitats within the BSA used in the preparation of this BRA are:

- The USFWS Official Species List for the BSA, November 13, 2018, (**Appendix A; Species Lists**);
- The results of a species record search of the CDFW CNDDDB, RareFind 5, for the 7.5 minute USGS “Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs, and Richardson Springs NW” quadrangles (**Appendix A; Species Lists**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS “Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs, and Richardson Springs NW” quadrangles (**Appendix A; Species Lists**);
- USFWS Critical Habitat Portal, November 13, 2018;
- Results from the field survey conducted by Gallaway Enterprises on November 20, 2018.

### Special-Status Species

Special-status species assessed as having the potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the CFGC (i.e. Fully Protected Species);
- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA) or California Fish and Game Code (CFGC) (§3503);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA, §15380).



Clark TPM18-0002 Northern Site  
 CNDDB Occurrences and Critical Habitat  
 Figure 3



## Critical Habitat

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species. The USFWS Critical Habitat Portal was accessed on November 13, 2018 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

## Sensitive Natural Communities

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated because they represent a historical landscape and are typically preserved as valued components of California's diverse habitat assemblage.

## Waters of the United States

During the habitat assessment Gallaway Enterprises assessed the BSA for the presence of waters of the United States (WOTUS).

## Biological and Botanical Surveys

A general biological and botanical survey was conducted on November 20, 2018 by Gallaway Enterprises Senior Botanist Elena Gregg, and Biologist Leah Cochran. The general survey consisted of a habitat assessment to determine the presence of special-status species and their habitats within the BSA. The habitat assessment was conducted by walking all areas of the BSA and taking inventory of observed species and habitat elements. The purpose of the habitat assessment was to determine if suitable habitat occurs within the BSA for special-status species. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), micro-climate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns. A list of observed species is provided as **Appendix B**.

## RESULTS

### Vegetation Communities

#### Annual Grassland

Annual grassland is the only vegetation community observed within the BSA. Common species that were observed in the annual grasslands were medusahead (*Elymus caput-medusae*), wild oats (*Avena barbata*), soft chess (*Bromus hordeaceus*), and perennial ryegrass (*Festuca perennis*). This habitat type

provides foraging ground for a variety of wildlife species and breeding habitat for several terrestrial reptiles, ground nesting birds, and fossorial mammals.

### Critical Habitat

There is no critical habitat within the BSA.

### Sensitive Natural Communities

No SNCs occur within the BSA.

### Waters of the United States

No WOTUS were observed within the BSA.

### Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS, IPaC species list, CNDDDB, and the CNPS list of rare and endangered plants within the 7.5 minute USGS “Nord, Chico, Ord Ferry, Foster Island, Hamilton City, Vina, Campbell Mount, Richardson Springs, and Richardson Springs NW” quadrangles, are described in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies and evaluating habitat characteristics. Species were not included in the special-status species summary table if the habitat the species occurs in or the species’ range does not occur in the BSA.

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

**Table 1. Special-status Species and Sensitive Natural Communities and Their Potential to Occur in the BSA of the Clark TPM 18-0002 Northern Site, Butte County, CA.**

Common Name ( <i>Scientific Name</i> )	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
<b>SENSITIVE NATURAL COMMUNITIES</b>			
<b>Northern Hardpan Vernal Pool</b>	SCN	Grasslands with depressions and variable topography, clay and hardpan soils with poor drainage.	<u>None.</u> There is no vernal pool habitat in the BSA.

PLANTS			
<b>Ferris' Milk-vetch</b> ( <i>Astragalus tener</i> <i>var. ferrisiae</i> )	_/_/1B.1	Meadows and seeps. Vernally mesic or subalkaline flats. Valley and foothill grassland. Blooms: Apr-May.	<u>None.</u> There is no mesic habitat within the BSA.
<b>Pink Creamsacs</b> ( <i>Castilleja</i> <i>rubicundula var.</i> <i>rubicundula</i> )	_/_/1B.2	Chaparral, Cismontane woodland, Meadow & seep, Ultramafic, Valley & foothill grassland. Blooms: Apr-Jun.	<u>None.</u> There is no seep habitat within the BSA.
<b>Silky Cryptantha</b> ( <i>Cryptantha crinita</i> )	_/_/1B.2	Streambeds with cobble substrate Blooms: Apr- May.	<u>None.</u> No suitable habitat occurs within the BSA.
<b>Hoover's Spurge</b> ( <i>Euphorbia hooveri</i> )	FT/_/1B.2	Vernal pools. Blooms: Jul- Sep(Oct).	<u>None.</u> There are no vernal pools in the BSA.
<b>Adobe-lily</b> ( <i>Fritillaria pluriflora</i> )	_/_/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Adobe. Blooms: Feb-Apr.	<u>None.</u> There are no adobe soils within the BSA.
<b>Boggs Lake Hedge- hyssop</b> ( <i>Gratiola</i> <i>heterosepala</i> )	_/SE/1B.2	Marshes, swamps, vernal pools. Blooms: Apr-Aug.	<u>None.</u> There are no vernal pools in the BSA.
<b>Coulter's Goldfields</b> ( <i>Lasthenia glabrata</i> <i>ssp. coulteri</i> )	_/_/1B.1	Marshes, swamps, playas, vernal pools. Blooms: Feb-Jun.	<u>None.</u> There are no vernal pools in the BSA.
<b>Butte County Meadowfoam</b> ( <i>Limnanthes floccose</i> <i>ssp. californica</i> )	FE/SE/1B.1	Vernal pools. Valley and foothill grasslands. Blooms: Mar-May.	<u>None.</u> There are no vernal pools in the BSA.
PLANTS			
<b>Hairy Orcutt Grass</b> ( <i>Orcuttia pilosa</i> )	FE/SE/1B.1	Vernal pools. Blooms: May-Sep.	<u>None.</u> There are no vernal pools in the BSA.
<b>Slender Orcutt Grass</b> ( <i>Orcuttia tenuis</i> )	FT/SE/1B.1	Vernal pool, Wetland. Blooms: May-Sep(Oct).	<u>None.</u> There are no vernal pools in the BSA.

PLANTS			
<b>Ahart's Paronychia</b> ( <i>Paronychia ahartii</i> )	_/_/1B.1	Cismontane woodland, valley and foothill grassland, vernal pools. Blooms: Feb-Jun.	<u>None.</u> There are no vernal pools in the BSA.
<b>Sanford's Arrowhead</b> ( <i>Sagittaria sandordii</i> )	_/_/1B.2	Shallow freshwater marshes and swamps. Blooms: May-Oct(Nov).	<u>None.</u> There is no marsh habitat in the BSA.
<b>Greene's Tuctoria</b> ( <i>Tuctoria greenei</i> )	FE/_/_/1B.1	Vernal pools. Blooms: May-Jul (Sep).	<u>None.</u> There are no vernal pools in the BSA.
<b>Slender Orcutt Grass</b> ( <i>Orcuttia tenuis</i> )	FT/SE/_/1B.1	Gravelly vernal pools. Blooms: May-Jul(Sep).	<u>None.</u> There are no vernal pools in the BSA.
INVERTEBRATES			
<b>Conservancy Fairy Shrimp</b> ( <i>Branchinecta conservation</i> )	FE/_/_	Vernal pools and seasonally ponded areas.	<u>None.</u> There are no vernal pools in the BSA.
<b>Valley Elderberry Longhorn Beetle</b> ( <i>Desmocerus californicus dimorphus</i> )	FT/_/_	Blue elderberry shrubs usually associated with riparian areas.	<u>None.</u> There are no elderberry shrubs within the BSA.
<b>Vernal Pool Fairy Shrimp</b> ( <i>Branchinecta lynchi</i> )	FT/_/_	Vernal pools and seasonally ponded areas.	<u>None.</u> There are no vernal pools in the BSA.
<b>Vernal Pool Tadpole Shrimp</b> ( <i>Lepidurus packardii</i> )	FE/_/_	Deep vernal pools.	<u>None.</u> There are no vernal pools in the BSA.
FISH			
The BSA does not support any habitat for federally listed fish species due to the lack of streams and drainages.			

AMPHIBIANS			
<b>California Red-legged Frog</b> ( <i>Rana draytonii</i> )	FT/SSC/_	Ponds in humid forests, woodlands, grasslands, coastal scrub, and streamsides with plant cover.	<u>None.</u> There is no suitable breeding habitat within the BSA and CRLFs have been extirpated from the Central Valley since 1960 (USFWS 2002).
<b>Foothill Yellow-legged Frog</b> ( <i>Rana boylei</i> )	_/SC/_	Streams with consistent flow, slow side waters with cobble and boulders for oviposition.	<u>None.</u> There is no suitable habitat within the BSA.
<b>Western Spadefoot</b> ( <i>Spea hammondi</i> )	_/SSC/_	Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland.	<u>None.</u> There is no suitable breeding habitat within the BSA.
REPTILES			
<b>Giant Garter Snake</b> ( <i>Thamnophis gigas</i> )	FT/ST/_	Wetland marshes, sloughs, rice paddies and associated irrigation canals.	<u>None.</u> There is no suitable habitat within the BSA.
BIRDS			
<b>Swainson's Hawk</b> ( <i>Buteo swainsoni</i> )	_/ST/_	Nests in large trees in open habitat with sparsely dispersed clumps of trees.	<u>None.</u> Suitable nesting trees were not observed in or near the BSA. No active nests have been observed within 10 miles of the BSA within the last 5 years.
<b>Yellow-billed Cuckoo</b> ( <i>Coccyzus americanus spp. occidentalis</i> )	FT/SE/_	Nesting requires thick riparian vegetation, especially willows, in valley foothill riverbottoms and mesic habitats.	<u>None.</u> There is no suitable habitat within the BSA nor are there riparian zones near the BSA.
<b>Burrowing Owl</b> ( <i>Athene cunicularia</i> )	_/SSC/_	Crepuscular species, nesting sites are burrows found in culverts, hilly mounds, and cut banks of dry waterways in open grasslands and shrublands.	<u>None.</u> Existing burrows within the BSA are not suitable for burrowing owl nesting.

MAMMALS			
<b>Western Mastiff Bat</b> ( <i>Eumops perotis californicus</i> )	_/SSC/_	Roosts in crevices in cliffs, trees, and tunnels. Nursery roosts in small crevices in rock or buildings.	<u>None.</u> There is no suitable roosting habitat within the BSA.

CODE DESIGNATIONS	
<b>FE</b> = Federally-listed Endangered <b>FT</b> = Federally-listed Threatened <b>FC</b> = Federal Candidate Species <b>MBTA</b> = Protected by the federal Migratory Bird Treaty Act  <b>SE</b> = State-listed Endangered <b>ST</b> = State-listed Threatened <b>SC</b> = State Candidate for Listing as Threatened or Endangered <b>SR</b> = State-listed Rare <b>SSC</b> = State Species of Special Concern  <b>S1</b> = State Critically Imperiled <b>S2</b> = State Imperiled <b>S3</b> = State Vulnerable <b>S4</b> = State Apparently Secure	<b>FP</b> = CDFW Fully Protected Species <b>SNC</b> = CDFW Sensitive Natural Community  <b>CRPR 1B</b> = Rare or Endangered in California or elsewhere <b>CRPR 2</b> = Rare, Threatened or Endangered in California, more common elsewhere <b>CRPR 3</b> = More information is needed <b>CRPR 4</b> = Plants with limited distribution, not considered rare, threatened or endangered  <b>0.1</b> = Seriously Threatened <b>0.2</b> = Fairly Threatened <b>0.3</b> = Not very Threatened
<p><b>Potential for Occurrence:</b> Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:</p> <p><b>None:</b> The species or natural community does not occur, and has no potential to occur in the BSA based on sufficient surveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.</p> <p><b>Low:</b> Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.</p> <p><b>Moderate:</b> Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA. Pre-construction surveys may be required.</p> <p><b>High:</b> Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required.</p> <p><b>Known:</b> Species was detected in the BSA or a recent reliable record exists for the BSA.</p>	

### Endangered, Threatened and Rare Plants

A habitat assessment was conducted within the BSA on November 20, 2018. Based on the results of the habitat assessment the BSA lacks suitable habitat for all special status plant species listed in Table 1 below. There were no endangered, threatened or rare plants observed within the BSA. A list of the plant species observed during the field survey is provided in **Appendix B**.

### Endangered, Threatened and Special Status Wildlife

A wildlife habitat assessment was conducted within the BSA on November 20, 2018. Suitable habitat was identified for several avian species protected under the MBTA, including the western meadowlark. The BSA provides ample foraging habitat, but no nesting habitat, for raptor species such as the state listed Swainson’s hawk.

## **Migratory Birds and Raptors**

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (§3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### ***CNDDB Occurrences***

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDB because they are abundant and widespread.

### ***Status of Migratory Birds and Raptors occurring in the BSA***

There is suitable nesting habitat for a variety of ground and shrub nesting avian species throughout the BSA. A high diversity of avian species has the potential to nest in the BSA based on the variety of habitat types. A list of the bird species observed flying through or utilizing the BSA during the field survey is provided as **Appendix B**.

## **REGULATORY FRAMEWORK**

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

### **Federal**

#### **Waters of the United States, Clean Water Act, Section 404**

The Army Corps of Engineers and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (§404). The term “waters of the United States” is an encompassing term that includes “wetlands” and “other waters.” Wetlands have been defined for regulatory purposes as follows: “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and

that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas.” other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

### **Clean Water Act, Section 401**

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

### **Federal Endangered Species Act**

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for

listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing, but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

### **Migratory Bird Treaty Act**

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately February 1 through August 31 in the Central Valley). If vegetation removal or ground disturbance activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA present in the construction area prior to commencement of construction. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

## **State of California**

### **California Endangered Species Act**

The CESA is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

### **California Fish and Game Code (§3503.5)**

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take,

possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### **Lake and Streambed Alteration Agreement, CFGC (§1602)**

The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The California Fish and Game Code (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds except when the department has been notified pursuant to Section 1601.” If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

### **Rare and Endangered Plants**

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and game Code §1913 exempts from the ‘take’ prohibition “the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way.”

## **California Environmental Quality Act Guidelines §15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Endangered, Threatened, and Special-status Wildlife**

#### **Migratory Birds and Raptors**

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season then the following will occur:
  - A qualified biologist will conduct a pre-construction survey within and 250 feet adjacent to the BSA, where accessible, within 7 days prior to the start of Project activities.
  - If an active nest (i.e. containing egg(s) or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

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# Appendix A

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Species Lists

## Plant List

### Inventory of Rare and Endangered Plants

35 matches found. [Click on scientific name for details](#)

#### Search Criteria

Found in Quads 3912281, 3912188, 3912187, 3912271, 3912178, 3912177, 3912261, 3912168 and 3912167;  
Elevation is below 1000 feet

[Modify Search Criteria](#)
[Export to Excel](#)
[Modify Columns](#)
[Modify Sort](#)
[Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Astragalus pauperculus</a>	depauperate milk-vetch	Fabaceae	annual herb	Mar-Jun	4.3	S4	G4
<a href="#">Astragalus tener var. ferrisiae</a>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
<a href="#">Balsamorhiza macrolepis</a>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
<a href="#">Calycadenia oppositifolia</a>	Butte County calycadenia	Asteraceae	annual herb	Apr-Jul	4.2	S3	G3
<a href="#">Campylopodia stenocarpa</a>	flagella-like atractylocarpus	Dicranaceae	moss		2B.2	S1?	G5
<a href="#">Castilleja rubicundula var. rubicundula</a>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
<a href="#">Clarkia gracilis ssp. albicaulis</a>	white-stemmed clarkia	Onagraceae	annual herb	May-Jul	1B.2	S3	G5T3
<a href="#">Cryptantha crinita</a>	silky cryptantha	Boraginaceae	annual herb	Apr-May	1B.2	S2	G2
<a href="#">Cryptantha rostellata</a>	red-stemmed cryptantha	Boraginaceae	annual herb	Apr-Jun	4.2	S3	G4
<a href="#">Downingia pusilla</a>	dwarf downingia	Campanulaceae	annual herb	Mar-May	2B.2	S2	GU
<a href="#">Erythranthe glaucescens</a>	shield-bracted monkeyflower	Phrymaceae	annual herb	Feb-Aug(Sep)	4.3	S3S4	G3G4
<a href="#">Euphorbia hooveri</a>	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
<a href="#">Fritillaria eastwoodiae</a>	Butte County fritillary	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
<a href="#">Fritillaria pluriflora</a>	adobe-lily	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
<a href="#">Gratiola heterosepala</a>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	1B.2	S2	G2
<a href="#">Hesperex caulescens</a>	hogwallow starfish	Asteraceae	annual herb	Mar-Jun	4.2	S3	G3
<a href="#">Hibiscus lasiocarpus var. occidentalis</a>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
<a href="#">Imperata brevifolia</a>	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
<a href="#">Juncus leiospermus var. leiospermus</a>	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2

<a href="#">Lasthenia glabrata ssp. coulteri</a>	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
<a href="#">Limnanthes floccosa ssp. californica</a>	Butte County meadowfoam	Limnanthaceae	annual herb	Mar-May	1B.1	S1	G4T1
<a href="#">Limnanthes floccosa ssp. floccosa</a>	woolly meadowfoam	Limnanthaceae	annual herb	Mar-May(Jun)	4.2	S3	G4T4
<a href="#">Monardella venosa</a>	veiny monardella	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1
<a href="#">Navarretia heterandra</a>	Tehama navarretia	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
<a href="#">Navarretia nigelliformis ssp. nigelliformis</a>	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
<a href="#">Orcuttia pilosa</a>	hairy Orcutt grass	Poaceae	annual herb	May-Sep	1B.1	S1	G1
<a href="#">Orcuttia tenuis</a>	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	1B.1	S2	G2
<a href="#">Paronychia ahartii</a>	Ahart's paronychia	Caryophyllaceae	annual herb	Feb-Jun	1B.1	S3	G3
<a href="#">Polygonum bidwelliae</a>	Bidwell's knotweed	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
<a href="#">Rhynchospora californica</a>	California beaked-rush	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
<a href="#">Sagittaria sanfordii</a>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
<a href="#">Sidalcea robusta</a>	Butte County checkerbloom	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2
<a href="#">Stuckenia filiformis ssp. alpina</a>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S3	G5T5
<a href="#">Tuctoria greenei</a>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1
<a href="#">Wolffia brasiliensis</a>	Brazilian watermeal	Araceae	perennial herb (aquatic)	Apr,Dec	2B.3	S1	G5

### Suggested Citation

California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 13 November 2018].

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[CalPhotos](#)

#### Questions and Comments

[rareplants@cnps.org](mailto:rareplants@cnps.org)



Selected Elements by Scientific Name  
 California Department of Fish and Wildlife  
 California Natural Diversity Database



**Query Criteria:** Quad IS (Nord (3912178) OR Richardson Springs (3912177) OR Richardson Springs NW (3912188) OR Campbell Mound (3912187) OR Vina (3912281) OR Hamilton City (3912261) OR Foster Island (3912271) OR Ord Ferry (3912168) OR Chico (3912167)) AND Elevation IS less than or equal to "1000"

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Agelaius tricolor</i></b> tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
<b><i>Anthicus antiochensis</i></b> Antioch Dunes anthicid beetle	IICOL49020	None	None	G1	S1	
<b><i>Anthicus sacramento</i></b> Sacramento anthicid beetle	IICOL49010	None	None	G1	S1	
<b><i>Antrozous pallidus</i></b> pallid bat	AMACC10010	None	None	G5	S3	SSC
<b><i>Ardea alba</i></b> great egret	ABNGA04040	None	None	G5	S4	
<b><i>Ardea herodias</i></b> great blue heron	ABNGA04010	None	None	G5	S4	
<b><i>Astragalus tener var. ferrisiae</i></b> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<b><i>Athene cunicularia</i></b> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<b><i>Branchinecta conservatio</i></b> Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
<b><i>Branchinecta lynchi</i></b> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<b><i>Branchinecta mesovallensis</i></b> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<b><i>Buteo swainsoni</i></b> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<b><i>Campylopodia stenocarpa</i></b> flagella-like atractylocarpus	NBMUS84010	None	None	G5	S1?	2B.2
<b><i>Castilleja rubicundula var. rubicundula</i></b> pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
<b>Central Valley Drainage Fall Run Chinook Stream</b> Central Valley Drainage Fall Run Chinook Stream	CARA2442CA	None	None	GNR	SNR	
<b>Central Valley Drainage Hardhead/Squawfish Stream</b> Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
<b>Central Valley Drainage Valley Floor River</b> Central Valley Drainage Valley Floor River	CARA2441CA	None	None	GNR	SNR	
<b>Coastal and Valley Freshwater Marsh</b> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Coccyzus americanus occidentalis</i></b> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<b><i>Cryptantha crinita</i></b> silky cryptantha	PDBOR0A0Q0	None	None	G2	S2	1B.2
<b><i>Desmocerus californicus dimorphus</i></b> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
<b><i>Emys marmorata</i></b> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<b><i>Erethizon dorsatum</i></b> North American porcupine	AMAFJ01010	None	None	G5	S3	
<b><i>Eumops perotis californicus</i></b> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<b><i>Euphorbia hooveri</i></b> Hoover's spurge	PDEUP0D150	Threatened	None	G1	S1	1B.2
<b><i>Fritillaria eastwoodiae</i></b> Butte County fritillary	PMLIL0V060	None	None	G3Q	S3	3.2
<b><i>Fritillaria pluriflora</i></b> adobe-lily	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
<b><i>Gratiola heterosepala</i></b> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<b>Great Valley Cottonwood Riparian Forest</b> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<b>Great Valley Mixed Riparian Forest</b> Great Valley Mixed Riparian Forest	CTT61420CA	None	None	G2	S2.2	
<b>Great Valley Valley Oak Riparian Forest</b> Great Valley Valley Oak Riparian Forest	CTT61430CA	None	None	G1	S1.1	
<b>Great Valley Willow Scrub</b> Great Valley Willow Scrub	CTT63410CA	None	None	G3	S3.2	
<b><i>Haliaeetus leucocephalus</i></b> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<b><i>Hibiscus lasiocarpus var. occidentalis</i></b> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<b><i>Imperata brevifolia</i></b> California satintail	PMPOA3D020	None	None	G4	S3	2B.1
<b><i>Lasionycteris noctivagans</i></b> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<b><i>Lasiurus blossevillii</i></b> western red bat	AMACC05060	None	None	G5	S3	SSC
<b><i>Lasiurus cinereus</i></b> hoary bat	AMACC05030	None	None	G5	S4	
<b><i>Lasthenia glabrata ssp. coulteri</i></b> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b><i>Laterallus jamaicensis coturniculus</i></b> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<b><i>Lepidurus packardi</i></b> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<b><i>Limnanthes floccosa ssp. californica</i></b> Butte County meadowfoam	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
<b><i>Limnanthes floccosa ssp. floccosa</i></b> woolly meadowfoam	PDLIM02043	None	None	G4T4	S3	4.2
<b><i>Linderiella occidentalis</i></b> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<b><i>Myotis yumanensis</i></b> Yuma myotis	AMACC01020	None	None	G5	S4	
<b>Northern Hardpan Vernal Pool</b> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<b>Northern Volcanic Mud Flow Vernal Pool</b> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<b><i>Oncorhynchus tshawytscha pop. 6</i></b> chinook salmon - Central Valley spring-run ESU	AFCHA0205A	Threatened	Threatened	G5	S1	
<b><i>Oncorhynchus tshawytscha pop. 7</i></b> chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5	S1	
<b><i>Orcuttia pilosa</i></b> hairy Orcutt grass	PMPOA4G040	Endangered	Endangered	G1	S1	1B.1
<b><i>Orcuttia tenuis</i></b> slender Orcutt grass	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<b><i>Pandion haliaetus</i></b> osprey	ABNKC01010	None	None	G5	S4	WL
<b><i>Paronychia ahartii</i></b> Ahart's paronychia	PDCAR0L0V0	None	None	G3	S3	1B.1
<b><i>Rana boylei</i></b> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<b><i>Rhynchospora californica</i></b> California beaked-rush	PMCYP0N060	None	None	G1	S1	1B.1
<b><i>Riparia riparia</i></b> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<b><i>Sagittaria sanfordii</i></b> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<b><i>Sidalcea robusta</i></b> Butte County checkerbloom	PDMAL110P0	None	None	G2	S2	1B.2
<b><i>Spea hammondi</i></b> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<b><i>Stuckenia filiformis ssp. alpina</i></b> slender-leaved pondweed	PM POT03091	None	None	G5T5	S2S3	2B.2



Selected Elements by Scientific Name  
California Department of Fish and Wildlife  
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Tuctoria greenei</i> Greene's tuctoria	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Wolffia brasiliensis</i> Brazilian watermeal	PMLEM03020	None	None	G5	S2	2B.3

Record Count: 64



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Sacramento Fish And Wildlife Office  
Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846  
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:  
Consultation Code: 08ESMF00-2019-SLI-0321  
Event Code: 08ESMF00-2019-E-00958  
Project Name: Clark Development

November 13, 2018

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

## To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List

# Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2019-SLI-0321

Event Code: 08ESMF00-2019-E-00958

Project Name: Clark Development

Project Type: DEVELOPMENT

Project Description: Grading and construction of home, approx 40 acre land parcel

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.85132210575614N121.93343080935477W>



Counties: Butte, CA

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## Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### Birds

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>proposed</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

### Reptiles

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4482">https://ecos.fws.gov/ecp/species/4482</a>	Threatened

### Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

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## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened

## Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</a> Habitat assessment guidelines: <a href="https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf</a>	Threatened

## Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Flowering Plants

NAME	STATUS
Butte County Meadowfoam <i>Limnanthes floccosa ssp. californica</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/4223">https://ecos.fws.gov/ecp/species/4223</a>	Endangered
Greene's Tuctoria <i>Tuctoria greenei</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1573">https://ecos.fws.gov/ecp/species/1573</a>	Endangered
Hoover's Spurge <i>Chamaesyce hooveri</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/3019">https://ecos.fws.gov/ecp/species/3019</a>	Threatened
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/1063">https://ecos.fws.gov/ecp/species/1063</a>	Threatened

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

# Appendix B

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Observed Species

**Plant Species Observed within the Northern Project Site 11/20/ 2018**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Acmispon americanus</i>	Spanish lotus
<i>Avena barbata</i>	Wild oats
<i>Bromus hordeaceus</i>	Soft chess
<i>Centaurea solstitialis</i>	Yellow star thistle
<i>Centromadia fitchii</i>	Fitch's spikeweed
<i>Convolvulus arvensis</i>	Bindweed
<i>Croton setiger</i>	Turkey-mullein
<i>Elymus caput-medusae</i>	Medusahead
<i>Epilobium brachycarpum</i>	Tall willowherb
<i>Erodium botrys</i>	Long-beaked stork's-bill
<i>Erodium brachycarpum</i>	Foothill filaree
<i>Festuca perennis</i>	Rye-grass
<i>Galium aparine</i>	Bedstraw
<i>Hemizonia congesta</i>	Hayfield tarweed
<i>Lactuca serriola</i>	Prickly lettuce
<i>Leontodon saxatilis</i>	Hawkbit
<i>Lupinus sp.</i>	Sky lupine
<i>Ranunculus arvensis</i>	Field buttercup
<i>Trifolium hirtum</i>	Rose clover
<i>Vicia villosa</i>	Winter vetch

**Wildlife Species Observed within the Northern Project Site 11/20/2018**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Sturnella neglecta</i>	Western Meadowlark
<i>Passerculus sandwichensis</i>	Savannah Sparrow
<i>Spinus psaltria</i>	Lesser Goldfinch
<i>Haemorhous mexicanus</i>	House Finch
<i>Mimus polyglottos</i>	Northern Mockingbird
<i>Cathartes aura</i>	Turkey Vulture
<i>Tyto alba</i>	Barn Owl (field evidence)
<i>Thomomys bottae</i>	Pocket gopher (field evidence)

# Appendix C

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Site Photos Taken November 20, 2018



Overview of annual grassland habitat facing northeast.



Overview of annual grassland habitat facing west.

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# APPENDIX - C

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**CULTURAL RESOURCE ASSESSMENT  
FOR THE CLARK PARCEL SPLIT PROJECT,  
BUTTE COUNTY, CALIFORNIA**

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November 16, 2018  
(Job #18-059)

## INTRODUCTION

The Clark Parcel Split Project ('Project') involves the division of an existing 40.15-acre parcel into two, roughly 20-acre parcels. The Project lies in the east half of the east half of the northwest quarter of section 13, T23N, R1W at 5000 Will T Road, approximately one-half mile west of the intersection of Will T Road and Meridian Road (Figures 1 and 2).

Melinda Peak served as principal investigator for the current study. Neal Neuenschwander conducted the field survey (resumes, Appendix 1).

## CULTURAL HISTORY

### Archeological Background

Prior to this period of use of the area by the Mechoopda, there are two divergent models that seek to explain the ethnicity of the people in prehistory. The first of these models was developed by Makoto Kowta (1988) who, after examining three linguistic studies that sought to determine the origin and timing of the Maiduan arrival in California, postulated that the Maiduan people were late, post-AD 1200 immigrants to Butte County. The second model, which is more of an observation than a model, was offered by Moratto (1984:302-303), "In spatial range Martis coincides generally with the combined ethnographic areas of the Washo and Maiduan groups. Martis is probably not ancestral to Washo (Kings Beach) but may represent Maiduan prehistory as indicated by the archaeological records at Oroville, Bullards Bar, and Auburn reservoirs..."

Kowta's (1988) synthesis of the various linguistic models concerning the postulated arrival of the Penutian-speaking Maiduan people in the region were compared with the archeological remains recovered from the Lake Oroville area (Ritter 1970), Bullards Bar (Humphreys 1969) and Bucks Lake (Peak & Associates, Inc. 1983). Based on this comparison and a review of the creation myths of the Maidu (Dixon 1902), he concluded:

In summary, it is our current opinion that the Maiduan-speakers originally entered California from the north sometime around AD 500 and settled first in the foothills or valley edge in what is now Nisenan territory. There they were to assimilate resident Hokan-speaking peoples and various Central California cultural traits...These Proto-Nisenan also grew in number and by around AD 800 began to expand into what is now Konkow territory in Butte County...In turn, by AD 1000 or AD 1200, still within the Sweetwater period, the Proto-Konkow population grew sufficiently to expand northward into Plumas County to establish Maiduan-speakers there [Kowta 1988:190].

# Clark Parcel Split Project

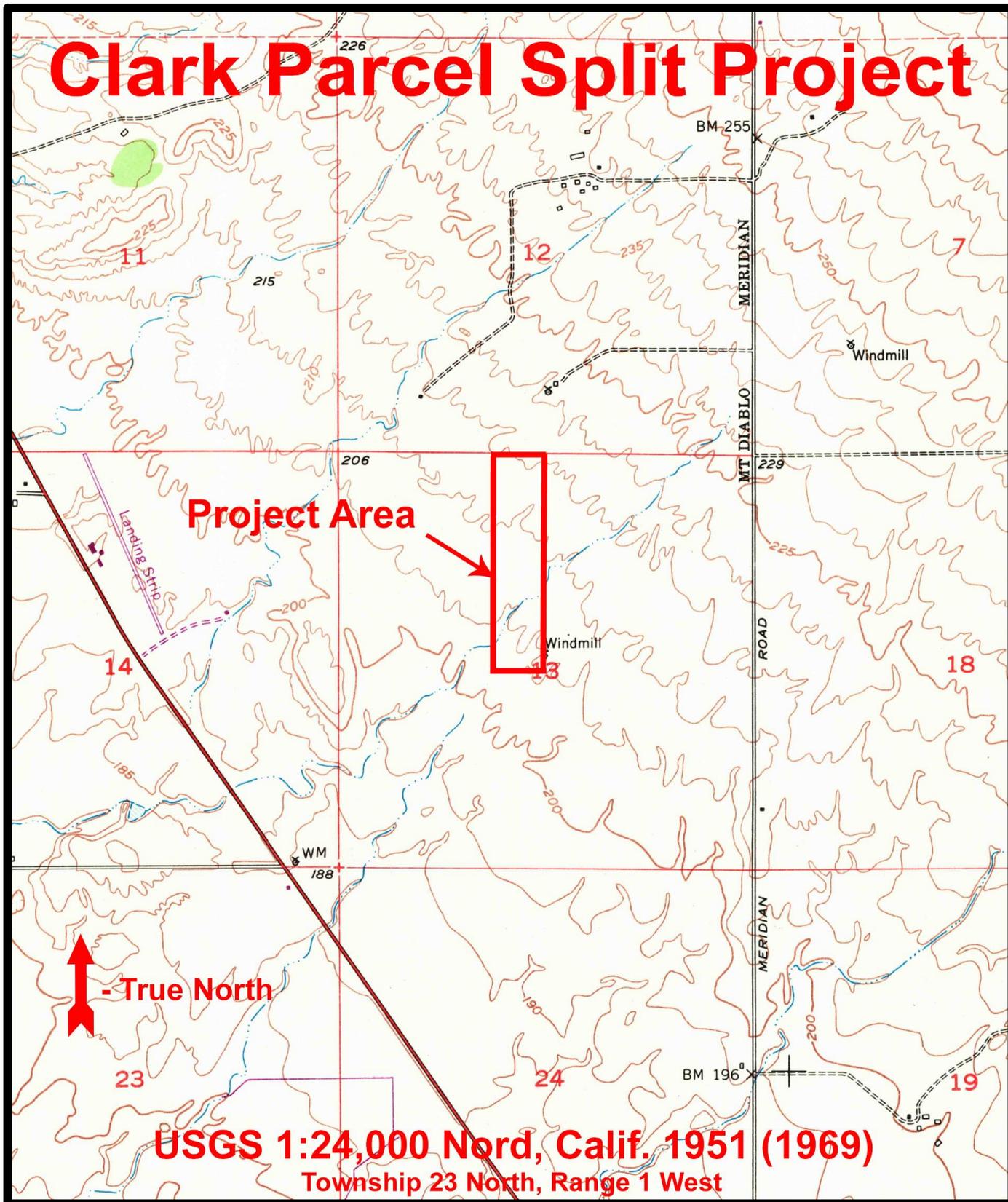


Figure 1



The linguistic models reviewed by Kowta (1988) included those provided by Whistler (1977), Shipley and Smith (1979) and Levy (1979). Whistler's (1977) linguistic model postulates a series of migrations by Penutian-speakers into California with the Maidu entry believed to have occurred after AD 500. Shipley and Smith's (1979) model was based on a comparison of the names for plants and animals used by the various divisions of the Maidu people, and proposed that the three primary groups (Nisenan, Konkow and Maidu) entered the state at separate times from the northeast, with the most recent arrival dated to approximately AD 1700. The final model reviewed by Kowta was presented by Levy (1979) who examined the similarity of certain names for plants and determined that the original Maidu homeland was located in an environment that contained yellow, sugar and Digger pines, incense cedar, black oak and buckeyes. Based on an analysis of the degree of divergence of certain linguistic terms for items between these three groups, and by applying a hypothetical rate of change that is thought to take place when languages become isolated from each other (known as glottochronological or lexico-statistical analysis), Levy estimated the Proto-Nisenan and Proto-Konkow split at AD 500, with the Konkow and Maidu divergence estimated at AD 1,000.

In assessing the degree of correlation between the different linguistic models proposed and the archeological record uncovered at the Oroville locality, Kowta (1988:186) felt that the examination of the degree of similarity between Sweetwater Complex (AD 800 to AD 1500) artifacts and those artifacts typically discovered in Central California and the Great Basin would allow for a test of the linguistic models. Kowta (1988:186) states, "Tapering stemmed points, tubular steatite pipes, *Olivella* shell beads, actinolite pins, the emphasis upon the mortar over milling stone, and steatite vessels are all more definitely Californian than Great Basin and tend to support the Levy Model rather than the Whistler, Shipley, and Smith one."

Humphreys (1969) identified three phases of occupation at the New Bullards Bar area located along the Yuba River including the Bullards Bar I (3,000 B.P. to 2,500 B.P. or 1,500 B.P. based on the presence of temporal time markers), Bullards Bar II (1,500 to 500 B.P.) and Bullards Bar III (500 B.P. to ethnographic contact). Bullards Bar I was felt to be representative of the Martis Complex by Humphreys and Kowta, but Bullards Bar II, a transitional phase that witnessed the introduction of the Gunther Series points and the prevalent use of steatite vessels, is believed by Kowta (1988:187) to represent the intrusion of the Maidu people into the area. According to Kowta (1988:188), "The earlier population is either absorbed, eliminated, or displaced."

Peak & Associates, Inc. (1983) investigation at the Boathouse Point site (CA-PLU-115) provided data that indicated a three to four times increase in the density of cultural material at approximately AD 1200, after a period of reduced site use from AD 500 to AD 1200. This increase in the density of cultural material indicated to Kowta (1988:188), "...the Maidu presence is recorded at the Boathouse Point site (CA-PLU-115) by around AD 1200."

The comparison of the linguistic models to archeological collections is problematic in that the dates ascribed for the linguistic divisions are based on essentially untested data. The assumption of a constant rate of change of linguistic terms between isolated groups should be considered as a hypothesis in need of verification prior to applying these dates to the analysis of archeological collections. Although the degree of fit between the postulated dates of the linguistic divergence and changes in the material culture evident in the region are possibly of some significance,

alternative explanations should also be investigated prior to the acceptance of any particular linguistic model, particularly when these models have such significant implications to the understanding of the cultural history of a region.

When reviewing the archeological literature for the ethnographic Maidu region, there appears to be more evidence to indicate a continuity of cultural occupation as there is evidence for changes in the composition of these groups. Most of the data cited as evidence for this postulated population replacement involves changes in the basic material culture of a group. For example, the introduction of the bow and arrow and mortar and pestle is evident at most sites that were occupied during this time period. Does this adoption of new technological items always imply a change in the cultural entities who occupied a region? It seems just as likely that ideas alone, as opposed to large groups of people, may have diffused across the region, and this process led to the differentiation of artifact inventory that is used by archeologist to delineate the various phases of occupation (such as Bullards Bar I, II and III). We see for example in most of the sites investigated in the northern Sierra Nevada region, a continuum of occupation across the Middle and early Late Archaic period, even though differences in the selection of styles of projectile points has been observed. Significant changes in the archeological record do appear at roughly AD 500 when entirely new processes for hunting (the introduction of the bow and arrow) and plant processing (the mortar and pestle) appear. These innovations appear to have shifted the pattern of resource collection and, by association, the distribution of archeological remains. The association between this adoption of new technologies and the presence on new ethnographic groups in a particular region should be viewed with some degree of caution.

Concerning the duration of occupation of the ethnographic Maidu people in the region, ethnographic information states:

The Maidu, in common with nearly all California Indians, offer sharp contrast to the Indians of the more easterly and southerly tribes, in that they have no tradition of having lived elsewhere than their present home. Turning to culture and mythology, we find few certain traces in the creation myths, of such a movement. There are perhaps slight traces in the creation myths, of a movement from west to east; but such indications are faint, and the whole question of movement must remain problematical for the present. From all indications, therefore, we are forced to regard the Maidu as having been settled, for at least a long period, in the region they occupied when first known... As has been already pointed out, there is a complete absence, apparently, of any sort of migration legend, all portions of the stock declaring emphatically that they originated precisely in their present homes...It is to be noted, also that not only among the Maidu, but practically all the other stocks within the State, the varied forms of culture observed are in all cases in harmony with the environment, and that the areas of similar culture are continuous, all of which tends to strengthen the belief that in the main such differences as are found have been slow local growth, and are not due to movements of population on any considerable scale.

Moreover, the accordance of culture with environment, and the continuity of the areas of similar culture, irrespective of linguistic boundaries, are evidence of long-continued occupation of the region by its present occupants [Dixon 1905:132; 315-316; 344].

According to Marie Potts (1977:8), “The Maidu people have no written record of their past. We believe that the occupancy of the land goes back to the beginning of things or at least thousands of years.”

Based on the data recovered from CA-PLU-88, a high elevation site in Maidu territory with 10,000 year record of use, and a review of the archeological literature in the region, Neuenschwander (1994) proposed an alternative model, that postulates that the Maidu people have been present in the region for at least the previous 4,000 year period and perhaps prior to this time period as well. It is suggested that the eastern and western sides of the Sierra crest have had a fairly stable occupation by a single ethnographic group (the Maidu) who, over time, began to display regional variations in speech and cultural practices. After this postulated early settlement of the area their population slowly grew in size due to the increased efficiency of resource exploitation. By the time of ethnographic contact, sufficient time had elapsed (here proposed to be several thousands of years) that the regional differences in language and culture, noted by Dixon (1905:343-346) had developed. The original origin of the Maidu cultural tradition may well have been the northern Sacramento Valley as stated in the ethnographic literature:

While placing the creation of the world uniformly in the vicinity of Durham, in the Sacramento Valley, the Northeastern Maidu, for example, declare they are the descendants of the pairs of human germs planted by the Creator in the lands which they now occupy, and that from that day to this they have continued to live in the region where their ancestors came into being...If any weight be given to the evidence above referred to from the myth cycles, of an easterly movement of the stock, this movement would seem to have taken place either before the acquirement by the Maidu of the secret-society organization and elaborate dances, or so long ago that all knowledge or remembrance of these has passed away from the members of the Northeastern section [Dixon 1905:344-345].

Baumhoff and Olmsted (1963:281-283) suggested a date of 2,500 B.C. (approximately 4,500 B.P.) as the date of the arrival of the Penutian speakers in the Sacramento Valley. If this assessment is correct, then this date would perhaps correspond with the initial migration into Plumas County by the Maidu peoples who were also Penutian speakers. This 4,500 B.P. date would also correspond with the initial evidence for widespread use and occupation in the northern Sierra Nevada region, including site CA-PLU-88. This correlation would logically place the Maidu entry into the region during the same time period ascribed to the Martis Culture or Tradition. Riddell (personal communication, 1994) notes that the original occupation at the Karlo site in eastern Lassen County began at roughly 4,000 B.P. by a cultural group with a clearly central California inventory of cultural goods. It is suggested that over time, as the new Penutian speakers settled into their new territory, cultural traits (and perhaps some degree of intermarriage and

assimilation) specific to the northeastern portion of California and adjacent Great Basin region began to become ingrained in the Maidu culture. This blending of cultural traits was noted by Dixon (1905:343), “Culturally, indeed, the several sections of the Maidu are closely affiliated to their immediately adjacent neighbors: the Northeastern having much in common with the Achomawi, the Northwestern with the Southern Wintun, and the Southern Maidu with the Moquelumnan.” It is perhaps significant that while many aspects of the culture did vary between the three subgroups of Maidu, the origin and temporal placement of their original ancestors in the creation myths apparently did not.

If this model is correct, the Mechoopda have resided in the Chico area for at least the previous 4,000 years.

### **Historic Context**

Among the initial penetrations of the upper Sacramento Valley region by Europeans was that of the Spanish explorer Gabriel Moraga, who in 1808, explored the lower reaches of Feather River, perhaps as far north as Sutter Buttes. In 1820, Captain Luis Arguello led an expedition into the foothills east of Oroville, and gave the Feather River its name (Fariss and Smith 1882:144-145). By 1828, and throughout the next two decades, Hudson's Bay Company and American Fur Company trappers were active within the region (Wells and Chambers 1973:128).

In 1844, Mexican Governor Manuel Micheltorena issued several land grants within northern California, including portions of what would later become Butte County. Peter Lassen was awarded a grant on Deer Creek, part of which extended into northern Butte County. That same year, Edward A. Farwell and Thomas Fallon settled on the Farwell grant, the eastern boundary of which cuts through present-day Chico, and Samuel Neal occupied the Esquon land grant, encompassing the modern hamlets of Durham and Nelson. In 1847, grantee John Bidwell settled on his famous estate in Chico. Neal and Bidwell in particular were instrumental in establishing the agricultural and livestock industries in the county, and they both made important gold discoveries as well (McGie 1982:35-37; Talbitzer 1987:21-24; Wells and Chambers 1973:128-129).

Butte County was incorporated on February 18, 1850 by an act of the newly commissioned state legislature. The original Butte County embraced all of present-day Butte and Plumas Counties along with portions of Lassen, Tehama, Sutter, and Colusa Counties (Wells and Chambers 1973:131). By 1853, when farms and settlements began to appear in some of the county's more remote regions, it became evident that the area was too large for the Butte County government to meet growing demands for roads, schools, law and order. Thus, beginning with Plumas County on March 18, 1854, areas within the original Butte County configuration began to be incorporated as separate counties (Fariss and Smith 1882:156-157).

During the late 1840s and early 1850s, Bidwell established the Chico area as an agricultural, transportation, and commercial center. As early as 1847, Bidwell maintained experimental orchards and fields, and a flour mill and fruit-drying plant were soon built. Stage lines passes through Chico, connecting Marysville and the Shasta area. Bidwell opened a hotel to accommodate travelers. By 1851, the first post office was established under Postmaster A.H.

Barbar. A court had already been founded, and Chico became a voting precinct in 1852. By 1859, a school was established in the town (McGie 1982:35; Talbitzer 1987:40-41, 60).

By 1860, the future City of Chico was thriving. Bidwell had purchased John Potter's ranch, a part of the Farwell Grant, and had a surveyor produce a plat of the town. Bidwell laid out plans for the town's future streets and gave free home sites to persons wishing to settle along those streets. About 500 people inhabited the town as of 1860. The town's growth was aided by commerce with the mining camps and towns to the east (McGie 1982:35; Talbitzer 1987:63, 66).

Agriculture and livestock raising along with mining in outlying communities continued to sustain Chico through the final decades of the last century. The California and Oregon railroad, which arrived in 1870, provided another economic boost to Chico, and facilitated the growth of the logging and lumbering industry in the nearby mountains. By 1872, the year in which the Town of Chico was incorporated, Chico boasted several lumber yards and sawmills, and hundreds of people in the vicinity were employed in the industry. Flumes were eventually constructed to transport logs from the mountains directly to the mills of Chico (Talbitzer 1987:67-70).

One of the major developments in the cultural and economic history of Chico was the decision by the state legislature in 1887 to erect a "normal school" in Chico to train elementary school teachers. Chico Normal School accepted its first students for the fall term of 1889. Over the succeeding decades, the school has evolved into California State University, Chico. One of the early settlements in the portion of Butte County near the Project is the small village of Rock Creek, located just north of the location of the modern intersection of Highway 99 and Keefer Road, on the ranch of J.L. Keefer. Keefer served as postmaster of the town from 1858 to 1871 (Frickstad 1955). This site is about two miles south of the Project. A lithograph appears in the 1877 County history, showing Rock Creek Ranch, grist mill, and saw mill (Smith & Elliott 1877).

### **Ethnological Background**

The Project area lies within the ethnographically known Mechoopda territory. The Mechoopda are a sub group of the Konkow. The Konkow, the neighboring Maidu to the east, and the Nisenan to the south all spoke Maiduan languages belonging to the Penutian superstock. Within the Konkow language, several dialects were spoken. The distribution of these dialectical groups was, in part, along the lower part of the Feather River Canyon, extending up to about the Rich Bar area. Others of the related groups held the Middle and South Fork Feather River drainages, extending westward onto the Sacramento Valley floor, immediately adjoining the lower foothill courses of these streams (Kroeber 1925:392; Riddell 1978:370).

Above the Central Valley and the gently-sloped lower Sierra foothills, the rivers have incised deep narrow canyons that are, at times, nearly inaccessible. By preference, the Konkow settlements were situated on ridges overlooking the rivers. Generally, selection was preferential towards ridge crest flats or midslope terraces (Dixon 1905:175).

The settlement pattern of the Konkow crossed multiple topographic and corresponding vegetation zones. It is unlikely that any one village had access to more than one or two biotic zones, but the cumulative territorial holdings included the Montane Forest, Montane Chaparral, Riparian

Woodland, Valley and Foothill Woodland Chaparral and Valley Grassland (Ornduff 1974). Within each plant community were food resources for exploitation, and these include those faunal members associated with the biotic zones. The pattern of "village communities" (Kroeber 1925:398) constituted the only political organization. A community was comprised of several geographically-related villages with one maintaining a large semi-subterranean ceremonial lodge (Riddell 1978:373). This larger lodge may also have been the dwelling of the headman, who was the more authoritative person in the community. The headman acted only as a spokesman and advisor to the people and apparently lacked magisterial powers. Each village community held a known territory in which all community members had hunting and fishing rights. The Konkow had less well-defined territorial boundaries than did the Maidu (Kroeber 1925:398; Riddell 1978:373).

The Konkow followed a seasonal pattern of transhumance, leaving the winter villages to travel higher into the mountains during the late spring and summer. Hunting of the migrating deer was major occupation in these seasons. The Indians exploited a wide array of wild vegetable foods that included pine nuts, seeds, roots, berries, greens and bulbs. The acorn provided the dietary staple as it did for most California Indian groups. The nuts of three species -- black oak, golden oak and interior live oak -- were preferred above all others (Riddell 1978:374). The acorn was processed after gathering by hulling and then grinding the nut meats into flour or meal. Where bedrock was exposed, pits were ground into the flat rock faces. Through the use of elongate cobbles or cylindrical-shaped pestles, the nuts were reduced by pounding in the mortar pits. This arduous task was only the beginning of the task of preparing acorns into an edible commodity. Following the grinding of the nutmeats, the meal required leaching by water to remove the bitter tannin. The slow addition of increasing warmer water was done in shallow depressions in sand. This water process was repeated until the tannin was gone. The dough was either cooked with water to make soup or mush. Bread was also made by baking the dough under hot stones (Riddell 1978:374).

The largest game animal that was hunted for its meat was the deer. Smaller mammals were not excluded as protein sources, although wolf, dog and coyotes were not eaten. Fishing produced salmon, trout, steelhead, eels and other rough fish.

The Konkow practiced hunting, gathering and fishing subsistence strategies. Their intimate knowledge of the flora and fauna ensured a well-developed exploitation of their territorial environs (Riddell 1978:373).

There were three dwellings constructed by the people, with use of these types related to the season. Winter structures were of two kinds: a semi-subterranean earth-covered lodge and a smaller, conical, bark slab dwelling. The summer houses were informal, wall-less shades constructed of upright poles supporting a roof of branches and leaves.

Trade was well developed in an interlocking system, with neighboring groups such as the Maidu, Achumawi and Wintuans. The exchange system brought desired goods into the Konkow groups while they supplied food stuffs, hides, arrows and bows to their trading partners (Riddell 1978:380; Kroeber 1925).

## Acculturation Period

The Konkow were almost decimated in 1833 by an epidemic of what may have been malaria (Cook 1955:322). In 1849, the onslaught of the gold miners completed the destruction of the Konkow lifeway. The miners penetrated to the most remote corners of the Konkow and Maidu lands with a consequent near total population displacement. The environmental balance was distorted by the whites, and the primary food sources were no longer easily available to the Indians. As a result, the starving Native Americans were forced to kill domestic livestock in order to survive. The white community responded in an often-excessive manner and many innocent native people were killed. In 1863, the forced relocation of many surviving Indians to Round Valley Reservation brought the hostilities under control. By 1870, the Indian resistance was virtually over (Riddell 1978:385).

The Mechoopda in the Chico area were somewhat more fortunate, thanks largely to John Bidwell, who had employed many native Mechoopda and Konkow in his gold mining operations at nearby Bidwell Bar, shortly after the discovery of gold at Coloma. The Mechoopda Band of Konkow returned with Bidwell to his new residence at Rancho Chico where they were employed as laborers. The Mechoopda lived adjacent to Bidwell's home (cabin, adobe structure, and finally mansion) until being relocated to a nearby area so that they would have more room (and due to all-night cry ceremonies behind the mansion that were disturbing to Bidwell's new wife, Annie). It is uncertain as to whether the "Indian village" shown on a map drawn by Bidwell in 1867 pre or post-dated Bidwell's arrival in the area (White in White et al. 2002:4). In general, thanks to Bidwell's protection and employment, the Mechoopda were spared the forced relocation to the Round Valley Reservation in 1863 and continued to practice many traditional cultural lifeways well into the 20<sup>th</sup> century.

## Mechoopda Cultural History

The Mechoopda Indian Tribe of Chico Rancheria has prepared an excellent, comprehensive overview of their specific tribal heritage. The following section is from **MECHOOPDA INDIAN TRIBE OF CHICO RANCHERIA, A Comprehensive Overview** (Mechoopda Indian Tribe of Chico Rancheria, 2007; used with their permission.)

The association of the Mechoopda people and their territory is told in early ethnographies. The ethnography of C. Hart Merriam includes interviews of three residents of the Chico Rancheria in the early 1900s. Merriam states that *Mitchopdo* (i.e., Mechoopda), in addition to being a village, is also the name or identity of a tribe, which encompassed or included other villages (Merriam, C. Hart. n.d. "Mitchopdo Territory and Villages" unpublished manuscript, Bancroft Library, University of California Berkeley).

Their villages were rather numerous notwithstanding the small size of the area, for no fewer than 23 are enumerated in the accompanying list. Of this

number 20 were inhabited during the lifetime of the informant (Jack Frango). Each had its own headman and roundhouse.

Merriam estimated the territory of the Mechoopda as “Territory from just south of Nord southerly to a little beyond Durham and from Sacramento River easterly to the foothills.” As Merriam’s notes indicate, “a little beyond” is not delineated; however, a southern boundary line drawn a mile or two south of Durham and proceeding eastward to the foothills would encompass the valley plains and watersheds of Big and Little Chico Creeks and Butte Creek including many of the smaller tributaries. The Mechoopda ancestral village appears to have been located on Little Butte Creek, approximately 3 miles southeast of Chico city hall. This is the site of the well-known archaeological site 4-But-1, estimated antiquity at approximately A.D. 1400 (Chartkoff & Chartkoff) and known to early residents as the Patrick Rancheria (i.e., Mechoopda, Mikchopdo). The last occupation of the Mechoopda ancestral village was thought to be about 1890 (Gruber, Abraham. 1963. *The Patrick Rancheria. The Masterkey* 37(1):30-34. Los Angeles: The Southwest Museum).

There is a location and identification of *Mitchopdo* (i.e., Mechoopda), as a village located on Little Butte Creek about three miles south of Chico. The ancestral village of Mechoopda averaged about 20 homes (150-175 people), and a large ceremonial roundhouse. Dwellings were primarily round, earth-covered structures, and averaging 20 feet in diameter, excavated to about three feet in depth. The antiquity of the site is estimated at approximately A.D. 1400.

Merriam states that *Mitchopdo* (i.e., Mechoopda), in addition to being a village, is also the name or identity of a tribe, which encompassed or included other villages. Under the heading of *Mitchopdo Territory and Villages*, Merriam states, “...villages were rather numerous notwithstanding the small size of the area, for no fewer than 23 are enumerated ....” The people of Mechoopda spoke a language related to Maidu, one of the more than 175 languages and dialects once spoken in native California.

The ancestral village of Mechoopda (i.e., *Mikchopdo*, *Miktsopdo*, *Mitchopdo*) located on Little Butte Creek is likely the location of the village at the time John Bidwell and other early non-Indian explorers entered the region in early 1840s. This is the well-known archaeological site known as 4-Butte-1 and later early residents of the region referred to as the Patrick Rancheria. John Bidwell lived for a period in the Mechoopda village before establishing himself on Chico Creek (*Chico Record*, March 8, 1950). Members of the Patrick family claimed to have attended a ceremonial dance in the roundhouse at the site about 1880, and stated that most of the village population left the place about 1885, taking up permanent residence on Bidwell’s Rancho Arroyo Chico. The last occupation of the Patrick Rancheria (i.e., Mechoopda, *Mikchopdo*) was thought to be about 1890 (*The Patrick Rancheria*, *The Masterkey* 37(1):30-34) Abraham Gruber, 1963).

Under the heading of *Mitchopdo Territory and Villages*, Merriam states that "...villages were rather numerous notwithstanding the small size of the area, for no fewer than 23 are enumerated ...", known as *Se-dow-we, Tsa-ne, Bah-hap-ke, O-tah-ke, Tse-lim-meh, Tsoo-lam-sewe, Wil-lil-lim, Ki-dak-to, Sook-soo-koo, Soonoos, Bah-he-you, Pah-ken, Pol-mot, Yum-mut-to, Es-ken-ne, Pe-tut-taw, Pe-dow-kay, Baht-tche, Yu-dow, Wah-na-tahm, Yow-koo, Mitch-op-do, Sap-se.*

By 1850 the Mechoopda moved to a former summer camp site located on the south side of Chico Creek near First and Flume Streets in what is now downtown Chico. With the establishment of the ranchos, the introduction of agriculture and cattle, local native people soon entered into a working relationship with the newcomers as ranch hands.

The discovery of gold in California resulted in major changes to native societies like Mechoopda, even the course of Little Butte Creek, upon which the village of Mechoopda rested, was altered after a build-up of deposits from dredging gold upstream blocked its normal flow, diverting the stream into another channel. Most markedly, these series of changes forced the Mechoopda and other native people out of a hunting and gathering economy into the cash economy, very quickly. People had to learn new skills, a new language, and adapt to new foods as matters of immediate survival. Between 1848 and 1850, the world must have seemed as though it had turned upside down.

Ironically, many of the Mechoopda participated in the mining of gold, accompanying John Bidwell to the Feather River at a place that became known as Bidwell Bar. Bidwell's Native laborers helped him extract some \$100,000 in gold between 1848 and 1849, for which they were compensated in trade goods such as handkerchiefs, cigars, scissors, brandy, glass beads and pants.

Amid a climate of growing tensions and conflict between Indians and non-Indians, the U.S. Congress authorized a commission to negotiate a series of treaties. On August 1, 1851, headmen for nine tribal communities of the region signed the treaty at Bidwell's ranch, including Luck-y-an of the Mechoopda, known as the U.S. Treaty of 1851. Succumbing to opposition mounted by the California State Senate and the Governor, who objected to the reservation of lands for Indians that might be of either agricultural or gold bearing value, the U.S. Senate secretly rejected the treaties on July 8, 1852.

A few years later the village was moved downstream, closer to Bidwell's residence. The next decade saw a dramatic rise in conflict between Indians and non-Indians throughout Butte County. In 1863, implementation of the plan for (near) complete removal of Indians from Butte County began. Some 461 Indians rounded up from small villages throughout the foothills left Camp Bidwell, four miles north of Chico, on the long march to Round Valley in Mendocino County. Fourteen days later, only 277 Indians reached their destination. Most of the Mechoopda were not forced into removal due to their association with John Bidwell, and in effect

received his protection. In fact, several of those who managed to escape, either en-route, or later from Round Valley, sought asylum at Bidwell's ranch.

The people of Mechoopda had a long relationship with early pioneer John Bidwell and his wife Annie. It has been the subject of controversy, and opinions about the relationship vary. The Bidwell's prospered with the help of Native labor and the scene resembled that of a plantation to some. Yet, the Native residents of Rancho Arroyo Chico were provided work, homes, and some protection from hostile vigilantes.

In 1868, the village was moved one-half mile west to its final location along Sacramento Avenue, eventually becoming the Chico Rancheria.

Mrs. Bidwell instituted Christian religious teachings and established a church within the village in 1895. She also taught sewing, administered a small school, preached temperance, and was Vice President of the National Indian Association. In 1904, she had written Senator Perkins in support of a bill before Congress that would have allowed land to be granted to Indians. The population of the village in 1910 was fifty (13th U. S. Census).

Before her death, Mrs. Bidwell secured their rights to live there by deeding the property along Sacramento Avenue to the Board of Home Missions of the Presbyterian Church as trustee for the Native residents. Annie Bidwell died in 1918 and the land she had deeded to the church as held in trust until the United States conveyed the land into federal trust in 1939.

## **Historical Background**

Among the initial penetrations of the upper Sacramento Valley region by Europeans was that of the Spanish explorer Gabriel Moraga, who in 1808, explored the lower reaches of Feather River, perhaps as far north as Sutter Buttes. In 1820, Captain Luis Arguello led an expedition into the foothills east of Oroville and gave the Feather River its name (Fariss and Smith 1882:144-145). By 1828, and throughout the next two decades, Hudson's Bay Company and American Fur Company trappers were active within the region (Wells and Chambers 1973:128).

In 1844, Mexican Governor Manuel Micheltoarena issued several land grants within northern California, including portions of what would later become Butte County. Peter Lassen was awarded a grant on Deer Creek, part of which extended into northern Butte County. That same year, Edward A. Farwell and Thomas Fallon settled on the Farwell grant, the eastern boundary of which cuts through present-day Chico, and Samuel Neal occupied the Esquon Grant, encompassing the modern hamlets of Durham and Nelson. In 1847, grantee John Bidwell settled on his famous estate in Chico. Neal and Bidwell in particular were instrumental in establishing the agricultural and livestock industries in the county, and they both made important gold

discoveries as well (McGie 1982:35-37; Talbitzer 1987:21-24; Wells and Chambers 1973:128-129).

John C. Fremont made three topographic expeditions to the west in the mid-1840s. On his expedition in 1846, he is known to have camped at the Sutter Buttes. It is presumed that he travelled through Butte County in that year; the "Old Fremont Trail" on the 1863 General Land Office township plat may be the trail he blazed through the area, and may have continued to be in local use into the 1860s (Figure 3; Smith & Elliott 1877).

Butte County was incorporated on February 18, 1850 by an act of the newly commissioned state legislature. The original Butte County embraced all of present-day Butte and Plumas Counties along with portions of Lassen, Tehama, Sutter, and Colusa Counties (Wells and Chambers 1973:131). By 1853, when farms and settlements began to appear in some of the county's more remote regions, it became evident that the area was too large for the Butte County government to meet growing demands for roads, schools, law and order. Thus, beginning with Plumas County on March 18, 1854, areas within the original Butte County configuration began to be incorporated as separate counties (Fariss and Smith 1882:156-157).

During the late 1840s and early 1850s, Bidwell established the Chico area as an agricultural, transportation, and commercial center. As early as 1847, Bidwell maintained experimental orchards and fields, and a flour mill and fruit-drying plant were soon built. Stage lines passes through Chico, connecting Marysville and the Shasta area. Bidwell opened a hotel to accommodate travelers. By 1851, the first post office was established under Postmaster A.H. Barbar. A court had already been founded, and Chico became a voting precinct in 1852. By 1859, a school was established in the town (McGie 1982:35; Talbitzer 1987:40-41, 60).

By 1860, the future City of Chico was thriving. Bidwell had purchased John Potter's ranch, a part of the Farwell Grant, and had a surveyor produce a plat of the town. Bidwell laid out plans for the town's future streets, and gave free home sites to persons wishing to settle along those streets. About 500 people inhabited the town as of 1860. The town's growth was aided by commerce with the mining camps and towns to the east (McGie 1982:35; Talbitzer 1987:63, 66).

Agriculture and livestock raising along with mining in outlying communities continued to sustain Chico through the final decades of the last century. The California and Oregon railroad, which arrived in 1870, provided another economic boost to Chico, and facilitated the growth of the logging and lumbering industry in the nearby mountains. By 1872, the year in which the Town of Chico was incorporated, Chico boasted several lumber yards and sawmills, and hundreds of people in the vicinity were employed in the industry. Flumes were eventually constructed to transport logs from the mountains directly to the mills of Chico (Talbitzer 1987:67-70).

One of the major developments in the cultural and economic history of Chico was the decision by the state legislature in 1887 to erect a "normal school" in Chico to train elementary school teachers. Chico Normal School accepted its first students for the fall term of 1889. Over the succeeding decades, the school has evolved into California State University, Chico.

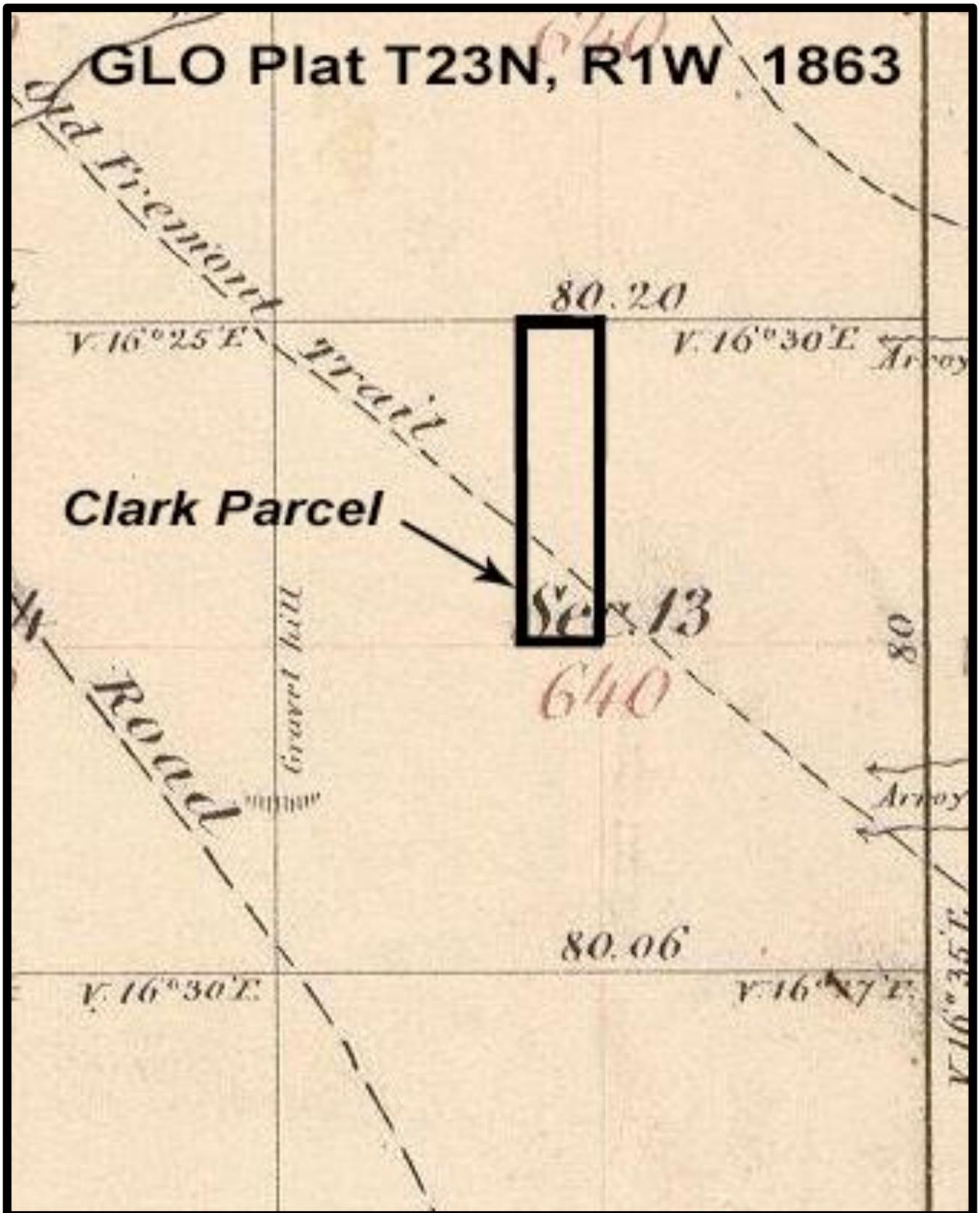


Figure 3

One of the early settlements in the portion of Butte County near the Project is the small village of Rock Creek, located just north of the location of the modern intersection of Highway 99 and Keefer Road, on the ranch of J.L. Keefer. Keefer served as postmaster of the town from 1858 to 1871 (Frickstad 1955). This site is about two miles south of the Project. A lithograph appears in the 1877 County history, showing Rock Creek Ranch, grist mill, and saw mill (Smith & Elliott 1877).

## STATE REGULATIONS

State historic preservation regulations affecting this project include the statutes and guidelines contained in the California Environmental Quality Act (CEQA; Public Resources Code sections 21083.2 and 21084.1 and sections 15064.5 and 15126.4 (b) of the CEQA Guidelines). CEQA Section 15064.5 requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. Public Resources Code Section 21098.1 further cites: A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

An “historical resource” includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript that is historically or archaeologically significant (Public Resources Code section 5020.1).

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor’s Office of Planning and Research (OPR), *CEQA and Archaeological Resources*, 1994. The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains (California Health and Safety Code Section 7050.5, California Public Resources Codes Sections 5097.94 et al).

### **The California Register of Historical Resources (Public Resources Code Section 5020 et seq.)**

The State Historic Preservation Office (SHPO) maintains the California Register of Historical Resources (CRHR). Properties listed, or formally designated as eligible for listing, on the National Register of Historic Places are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

For the purposes of CEQA, an historical resource is a resource listed in, or determined eligible for listing in the California Register of Historical Resources. When a project will impact a site, it needs to be determined whether the site is an historical resource. The criteria are set forth in Section 15064.5(a)(3) of the CEQA Guidelines, and are defined as any resource that does any of the following:

- A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, the CEQA Guidelines, Section 15064.5(a)(4) states:

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

#### **California Health and Safety Code Sections 7050.5, 7051, And 7054**

These sections collectively address the illegality of interference with human burial remains, as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction, and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

#### **California Public Resources Code Section 15064.5(e)**

This law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction. The section establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project and establishes the Native American Heritage Commission as the entity responsible to resolve disputes regarding the disposition of such remains.

### **RESEARCH**

Records of previous cultural resource surveys and maps of recorded cultural resources within a one-eighth mile radius from the Project were reviewed by the Northeast Information Center of the California Historical Resources Information System on August 14, 2018 (I.C. File # D18-115; Appendix 2). No cultural resources or cultural resource surveys have been recorded in the project area or within the one-eighth mile radius

## **FIELD SURVEY**

Neal Neuenschwander undertook the field survey on October 28, 2018 (resume, Appendix 1). The entire 40.15-acre Project was examined for evidence of prehistoric or historic occupation or use by means of walking over the Project back-and-forth with parallel transects that did not exceed 15 meters in width (Figure 4).

The southern portion of the Project had been recently mowed with low grasses and forbs not obscuring the ground surface. There were numerous exposures of sediment in and around the Clark residence at the south end of the Project as well. The northern portion of the Project had denser ground cover, but a graded road along the western edge and numerous rodent holes and small patches of exposed sediment were still present for observation.

## **RESULTS**

No evidence of prehistoric period use or occupation of the Project was observed. A previous investigation by Peak & Associates in 2009 of 530 acres in section 12 immediately north of the project area identified two prehistoric period isolated artifacts so the absence of prehistoric period artifacts in the 40.15-acre Project is consistent with this previous study (Peak & Associates, Inc. 2009).

No evidence of the Old Fremont Trail, as shown on the 1863 GLO Plat for T23N, R1W (Figure 3), was observed. A concrete water trough, several fragments of one-inch diameter iron pipe and a capped well, once associated with a windmill according to the 1951 USGS Nord topographic quadrangle, was identified and recorded in the far southeastern corner of the Project close to Will T Road. The historic period resource was assigned the temporary field number PA-18-42. A Department of Parks and Recreation 523 Series form is in Appendix 3.

### **PA-18-42**

The resource consists of a concrete water trough, several one-inch diameter iron pipes and a capped well. According to the 1951 Nord USGS topographic quadrangle (based on aerial photographs taken in 1947) the resource once had a windmill present. The water trough is 14.5 feet in diameter and 34 inches high. The concrete is six inches thick. An irregular-shaped concrete pad extends out from the water trough about five feet. The well is capped with one-quarter inch thick sheet metal.

The (former) windmill and water trough are the only feature shown on the 1951 USGS Nord topographic map for the entire section. It is reasonable to assume that this feature once served livestock as a watering station and was associated with a large landholding. Since the Project remained a Railroad Land Grant through the 1890s, the ranch was one of the later ones in the area since the 1877 county map shows ownership all around section 13, but nothing within the entire section. Section 12 to the immediate north of the Project, for example, was the site of the John Morgan Ranch that was settled by 1860 (Peak & Associates, Inc. 2009).

# Clark Parcel Split Project Survey Coverage

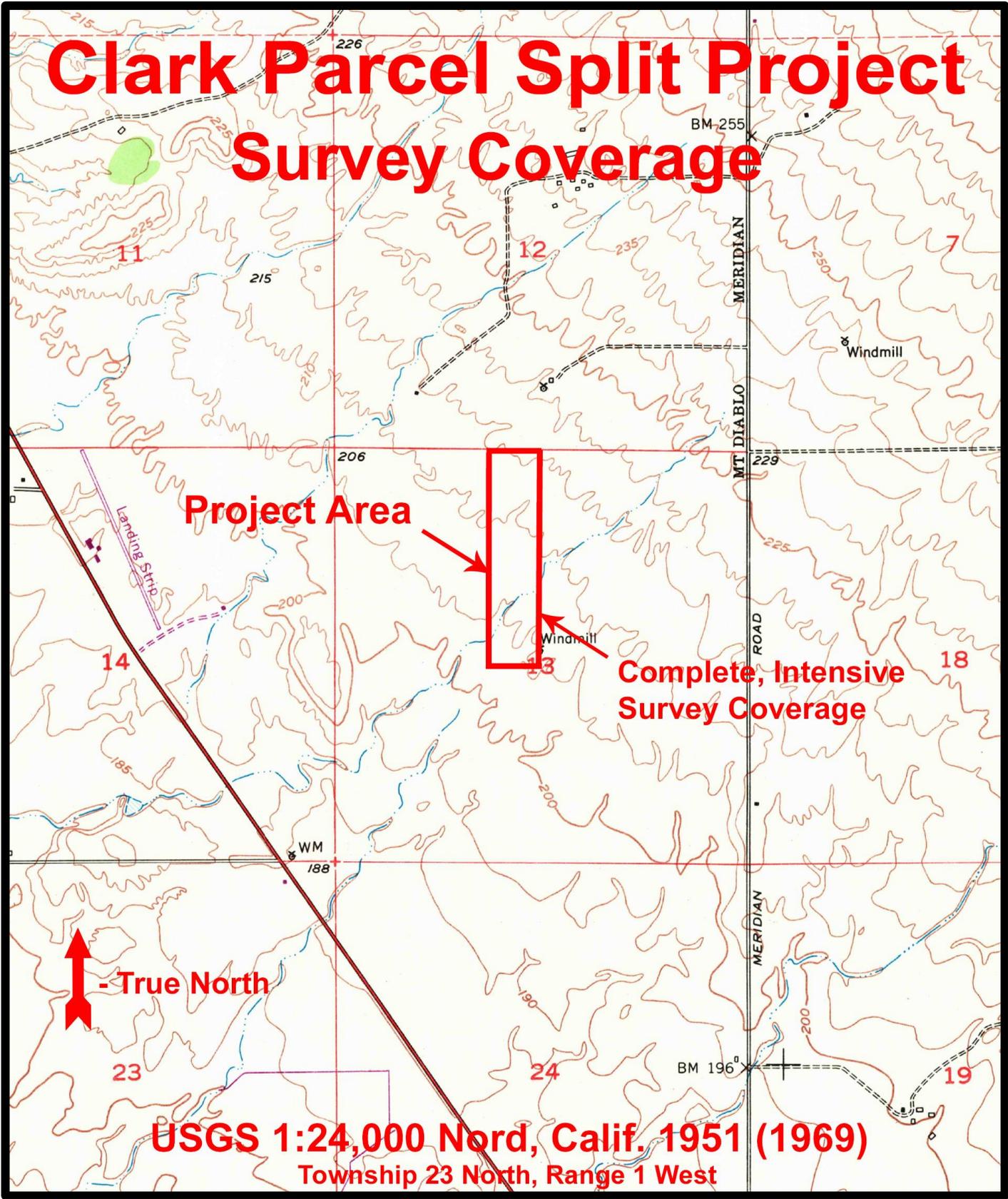


Figure 4

## Site Evaluation

PA-18-42 does not appear on the 1912 USGS Nord topographic quadrangle that was based on a survey conducted in 1910, so the feature must date to sometime after this period. The low aggregate content of the concrete used in the construction of the trough implies a later date of construction, perhaps post WWII but sometime pre-1947 when the aerial photograph of the Project was taken.

The concrete water trough, iron pipes, and capped well are physical reminders of the previous use of the Project for livestock raising. The original windmill is absent, so the integrity of the resource has been compromised. The setting of the resource has also been radically shifted from open field to small ranches lining a road, Will T, that was not present even in the late 1960s.

There is no apparent association with important individuals or events in history as the Project was acquired relatively late in Butte County's history. Concrete water troughs are not uncommon features on ranches, and PA-18-42 does not display any particular architectural or aesthetic quality or unique construction methods to meet the criteria for inclusion into the California Register as an important site.

There are no important cultural resources within the project area.

## RECOMMENDATIONS

As no important cultural resources were identified within the Project, **archeological clearance is recommended.**

There is always a slim possibility that a site may exist in the project area and be obscured by vegetation, siltation or historic activities, leaving no surface evidence. If any artifact or unusual amounts of stone, bone or shell be discovered, an archeologist should be brought in to evaluate the finding.

### Discovery of Human Remains

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area suspected to overlie adjacent remains until the Butte County Coroner has determined that the remains are not subject to any provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

If the Butte County Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American or has reason to

believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC).

After notification, the NAHC will follow the procedures outlined in Public Resources Code Section 5097.98, that include notification of most likely descendants (MLDs), and recommendations for treatment of the remains. The MLDs will have 24 hours after notification by the NAHC to make their recommendations (PRC Section 5097.98).

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*the Berkeley Linguistics:* 157-174.

## **APPENDIX 1**

### **Resumes**

**PEAK & ASSOCIATES, INC.**  
**RESUME**

**MELINDA A. PEAK**  
**Senior Historian/Archeologist**  
3941 Park Drive, Suite 20 #329  
El Dorado Hills, CA 95762  
(916) 939-2405

**January 2018**

**PROFESSIONAL EXPERIENCE**

Ms. Peak has served as the principal investigator on a wide range of prehistoric and historic excavations throughout California. She has directed laboratory analyses of archeological materials, including the historic period. She has also conducted a wide variety of cultural resource assessments in California, including documentary research, field survey, Native American consultation and report preparation.

In addition, Ms. Peak has developed a second field of expertise in applied history, specializing in site-specific research for historic period resources. She is a registered professional historian and has completed a number of historical research projects for a wide variety of site types.

Through her education and experience, Ms. Peak meets the Secretary of Interior Standards for historian, architectural historian, prehistoric archeologist and historic archeologist.

**EDUCATION**

M.A. - History - California State University, Sacramento, 1989  
Thesis: *The Bellevue Mine: A Historical Resources Management Site Study in Plumas and Sierra Counties, California*  
B.A. - Anthropology - University of California, Berkeley

**RECENT PROJECTS**

Ms. Peak completed the cultural resource research and contributed to the text prepared for the DeSabra-Centerville PAD for the initial stage of the FERC relicensing. She also served cultural resource project manager for the FERC relicensing of the Beardsley-Donnells Project. For the South Feather Power Project and the Woodleaf-Palermo and Sly Creek Transmission Lines, her team completing the technical work for the project.

In recent months, Ms. Peak has completed several determinations of eligibility and effect documents in coordination with the Corps of Engineers for projects requiring federal permits, assessing the eligibility of a number of sites for the National Register of Historic Places. She has also completed historical research projects on a wide variety of topics for a number of projects including the development of navigation and landings on the Napa River, farmhouses dating to the 1860s, bridges, an early roadhouse, Folsom Dam and a section of an electric railway line.

In recent years, Ms. Peak has prepared a number of cultural resource overviews and predictive models for blocks of land proposed for future development for general and specific plans. She has been able to direct a number of surveys of these areas, allowing the model to be tested.

She served as principal investigator for the multi-phase Twelve Bridges Golf Club project in Placer County. She served as liaison with the various agencies, helped prepare the historic properties treatment plan, managed the various phases of test and data recovery excavations, and completed the final report on the analysis of the test phase excavations of a number of prehistoric sites. She is currently involved as the principal investigator for the Clover Valley Lakes project adjacent to Twelve Bridges in the City of Rocklin, coordinating contacts with Native Americans, the Corps of Engineers and the Office of Historic Preservation.

Ms. Peak has served as project manager for a number of major survey and excavation projects in recent years, including the many surveys and site definition excavations for the 172-mile-long Pacific Pipeline proposed for construction in Santa Barbara, Ventura and Los Angeles counties. She also completed an archival study in the City of Los Angeles for the project. She also served as principal investigator for a major coaxial cable removal project for AT&T.

Additionally, she completed a number of small surveys, served as a construction monitor at several urban sites, and conducted emergency recovery excavations for sites found during monitoring. She has directed the excavations of several historic complexes in Sacramento, Placer and El Dorado Counties.

Ms. Peak is the author of a chapter and two sections of a published history (1999) of Sacramento County, *Sacramento: Gold Rush Legacy, Metropolitan Legacy*. She served as the consultant for a children's book on California, published by Capstone Press in 2003 in the Land of Liberty series.

**PEAK & ASSOCIATES, INC.**  
**RESUME**

**NEAL J. NEUENSCHWANDER**  
**Staff Archeologist**

3941 Park Drive, Suite 20-329  
El Dorado Hills, CA 95672  
(916) 939-2405

**August 2018**

3161 Godman Avenue, Suite A  
Chico, CA 95973  
(530) 342-2800

**PROFESSIONAL EXPERIENCE**

Mr. Neuenschwander has compiled an excellent record of supervision of excavation and survey projects for both the public and private sectors over the past thirty-nine years. He has supervised the fieldwork of over 1,800 projects throughout California, Oregon, Nevada, and southern Idaho.

**EDUCATION**

M.A. candidate - Anthropology - California State University, Chico  
B.A. - Anthropology - California State University, Chico (with distinction)  
B.A. - Geography - California State University, Chico (with distinction)

**RECENT PROJECTS**

Mr. Neuenschwander manages the North Valley office of Peak & Associates, located in Chico, California.

Neuenschwander's duties at Peak & Associates have included the field direction for multiple site excavations and surveys throughout northern, central, and southern California, Nevada, Oregon and Idaho. In this capacity, he has been responsible for the planning and implementation of every aspect of the fieldwork, analysis, and report production phases. During his twenty-nine years with the company, he has developed a reputation for his ability to complete projects on-time and within budget parameters, while at the same time maximizing the recovery and analysis of data for the professional community.

Notable projects under Neuenschwander's direction include the nine week excavation at Clarks Flat in Calaveras County, eleven weeks with a crew of over twenty technicians at the Upper Mountain locale (a remote camp six miles from the nearest road), ten weeks of an over 9,000-acre survey at Elk Hills Naval Petroleum Reserve, and a two-phase excavation at CA-PLU-88, a site that contained radiocarbon evidence of the some of the earliest inhabitation of the Sierra Nevada Mountains.

Mr. Neuenschwander also served as the field director for multiple phases of recordation, testing and evaluation for the 172-mile-long Pacific Pipeline Project proposed for construction in Santa Barbara, Ventura, and Los Angeles counties. He also has served as field director or co-director on a number of AT&T fiber optic projects throughout California, Oregon and Idaho.

**APPENDIX 2**  
**NEIC Record Search**

Northeast Center of the  
California Historical Resources  
Information System

BUTTE  
GLENN  
LASSEN  
MODOC  
PLUMAS  
SHASTA

SIERRA  
SISKIYOU  
SUTTER  
TEHAMA  
TRINITY

123 West 6th Street, Suite 100  
Chico CA 95928  
Phone (530) 898-6256  
[neinfocntr@csuchico.edu](mailto:neinfocntr@csuchico.edu)

August 14, 2018

**Mail to:**

Peak & Associates, Inc.  
3161 Godman Avenue  
Chico, CA 95973  
Attn.: Mr. Neal Neuenschwander

**Bill to:**

Peak & Associates, Inc.  
5238 Keystone Avenue  
Sacramento, CA 95841  
Attn.: Mr. R. Gerry  
[peakinc@surewest.net](mailto:peakinc@surewest.net)

**I.C. File # D18-115  
Records Search**

RE: Clark Parcel Split Project  
T23N, R1W, Section 13 MDBM  
USGS Nord 7.5' and Richardson Springs (1952) 15' quads  
Approximately 43.4 acres, estimated from project map (Butte County)

Dear Mr. Neuenschwander,

In response to your request, a records search for the project cited above was conducted by examining the official maps and records for archaeological sites and surveys in Butte County. Please note, the search includes the requested 1/8-mile radius surrounding the project area.

## RESULTS:

**Prehistoric Resources:** According to our records, no sites of this type have been recorded in the project area or 1/8-mile project vicinity. The project is located in a region utilized by Konkow Maidu populations. Unrecorded prehistoric cultural resources may be located within the project area.

**Historic Resources:** According to our records, no sites of this type have been recorded in the project area or 1/8-mile project vicinity. Unrecorded historic cultural resources may be located in the project area.

The USGS Richardson Springs (1952) 15' quad map indicates that a windmill and stream are located within the project area, while Highway 99, the Mt. Diablo Meridian, windmills, streams, roads, and structures are located within the general project vicinity.

A copy of the GLO plat map (1863) depicting the Old Fremont Trail in the project area and the Shasta Road, a house, and other roads in the project vicinity is enclosed. Also enclosed are copies of the historic Chico (1891) and Nord (1912) quad maps depicting a stream in the project area and roads and structures in the project vicinity.

**Previous Archaeological Investigations:** According to our records, the project area and 1/8-mile project vicinity have not been previously surveyed for cultural resources. However, a study has been performed which covers the region surrounding the project area. This study location is plotted on the enclosed NEIC-generated map. A Report List and copy of the study are included. The study is listed below.

Kowta, Makoto (CSU Chico)

1988 *The Archaeology and Prehistory of Plumas and Butte Counties, California:  
An Introduction and Interpretive Model.*

**NEIC Report 000839**

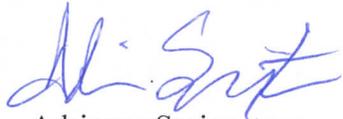
**Literature Search:** The official records and maps for archaeological sites and surveys in Butte County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2012); **California Register of Historical Resources** (2012); **California Points of Historical Interest** (2012); **California Inventory of Historic Resources** (1976); **California Historical Landmarks** (2012); **Directory of Properties in the Historic Property Data File for Butte County** (2012); and **Handbook of North American Indians, Vol. 8, California** (1978).

## RECOMMENDATIONS:

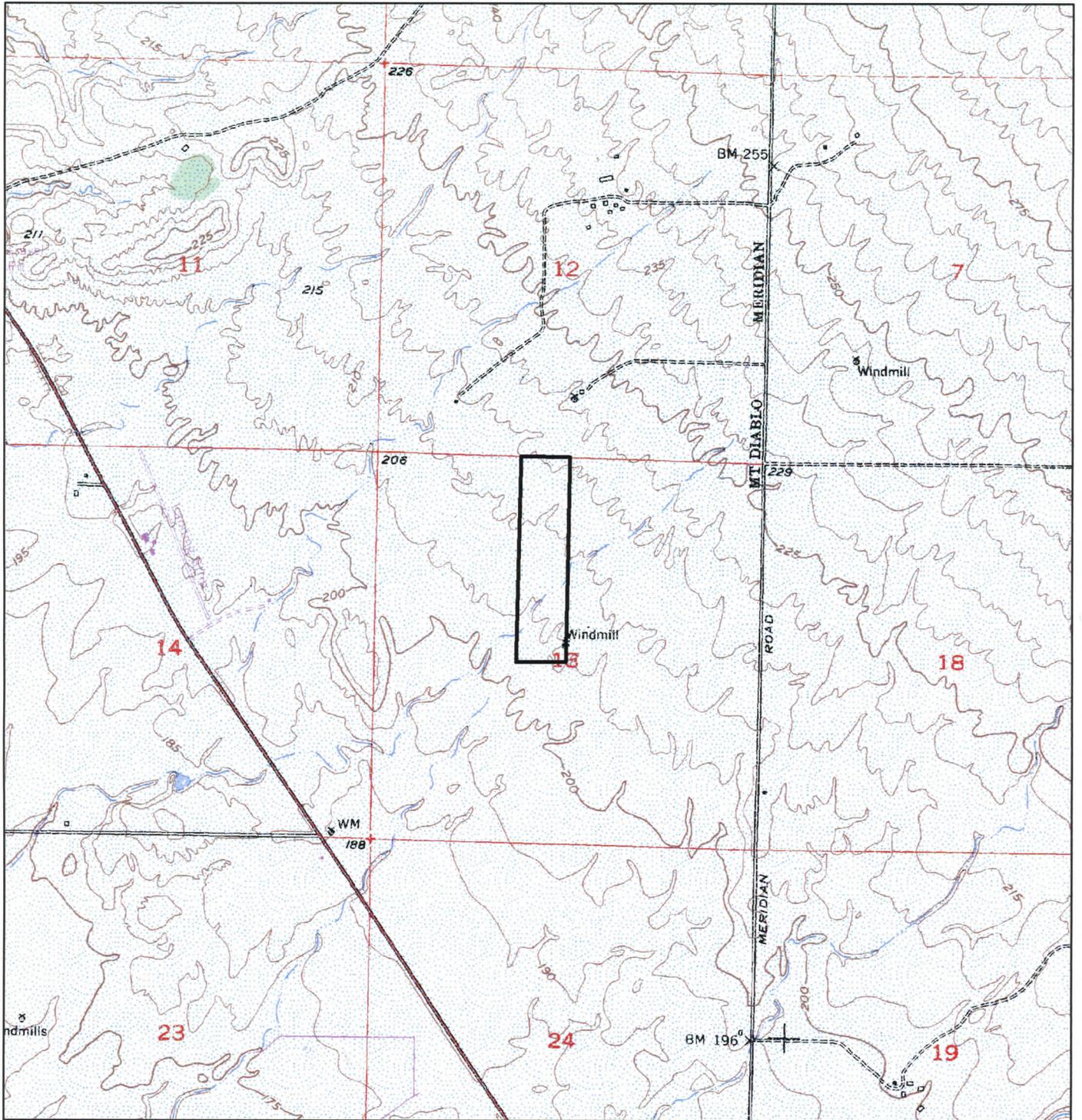
We recommend that you contact the appropriate local Native American representatives for information regarding traditional cultural properties that may be located within project boundaries for which we have no records.

The charge for this record search is **\$295.45** (please refer to the following page for more information). An invoice will follow from the CSUC Research Foundation for billing purposes. Thank you for your concern in preserving California's cultural heritage, and please feel free to contact us if you have any questions or need any further information or assistance.

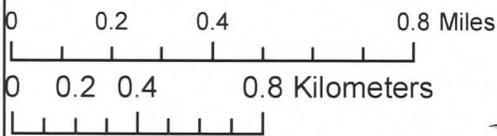
Sincerely,



Adrienne Springsteen  
Research Associate



May depict confidential cultural resource locations.  
Do not distribute.



**Northeast Information Center  
Records Search Results  
Clark Parcel Split Project  
IC File # D18-115  
Report Locations**

 000839

**APPENDIX 3**  
**DPR 523 Site Record**

Page 1 of 6                      \*Resource Name or #: PA-18-42

P1. Other Identifier:

\*P2. Location:  Not for Publication     Unrestricted                      \*a. County: Butte

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: Nord, Calif. Date: 1951 (1969) T 23N; R 1W ; SE ¼ of NW ¼ of Sec 13; M.D.B.M.

c. Address: 5000 Will T Road

City: Chico

Zip: 95973

d. UTM: Zone: 10 ;                      mE/                      mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 205 Feet. The resource is located near the southwest corner of APN# 047-100-202, north of Will T Road approximately 630 feet east of the intersection of Will T Road and Meridian Meadows Lane.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The resource consists of a concrete water trough, several one-inch diameter iron pipes and a capped well that according to the 1951 Nord USGS topographic quadrangle once had a windmill present. The water trough is 14.5 feet in diameter and 34 inches high. The concrete is six inches thick. An irregular-shaped concrete pad extends out from the water trough about five feet. The well is capped with one-quarter inch thick sheet metal.

\*P3b. Resource Attributes: (List attributes and codes) AH5 - Wells/Cisterns

\*P4. Resources Present:     Building     Structure     Object     Site     District     Element of District     Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession #) View looking to north, northwest from SE corner of the Clark parcel. 10/26/18. Acc. #201810fr639edit

\*P6. Date Constructed/Age and Sources:  Historic

Prehistoric     Both

Windmill symbol appears on 1951 Nord USGS that was based on an aerial photograph taken in 1947.

\*P7. Owner and Address: Dudley & Judith Clark Family Trust, 5000 Will T Road, Chico, CA 95973

\*P8. Recorded by: (Name, affiliation, and address) Neal Neuenschwander Peak & Associates, Inc. 3161 Godman Avenue, Chico, CA 95973

\*P9. Date Recorded: 10/26/18

\*P10. Survey Type: (Describe) Complete, intensive

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Cultural Resource Assessment

of the Clark Parel Split Project Area, Butte County, California. Peak & Associates, Inc., 2018

\*Attachments:  NONE     Location Map     Sketch Map     Continuation Sheet     Building, Structure, and Object Record  
 Archaeological Record     District Record     Linear Feature Record     Milling Station Record     Rock Art Record  
 Artifact Record     Photograph Record     Other (List):



A) View looking to the northwest with the capped well (foreground), water trough. 10/26/18. Acc. #2-01810fr641



B) View looking to the northeast with the water trough (center) and capped well (center right). 10/26/18. Acc. #201810fr642



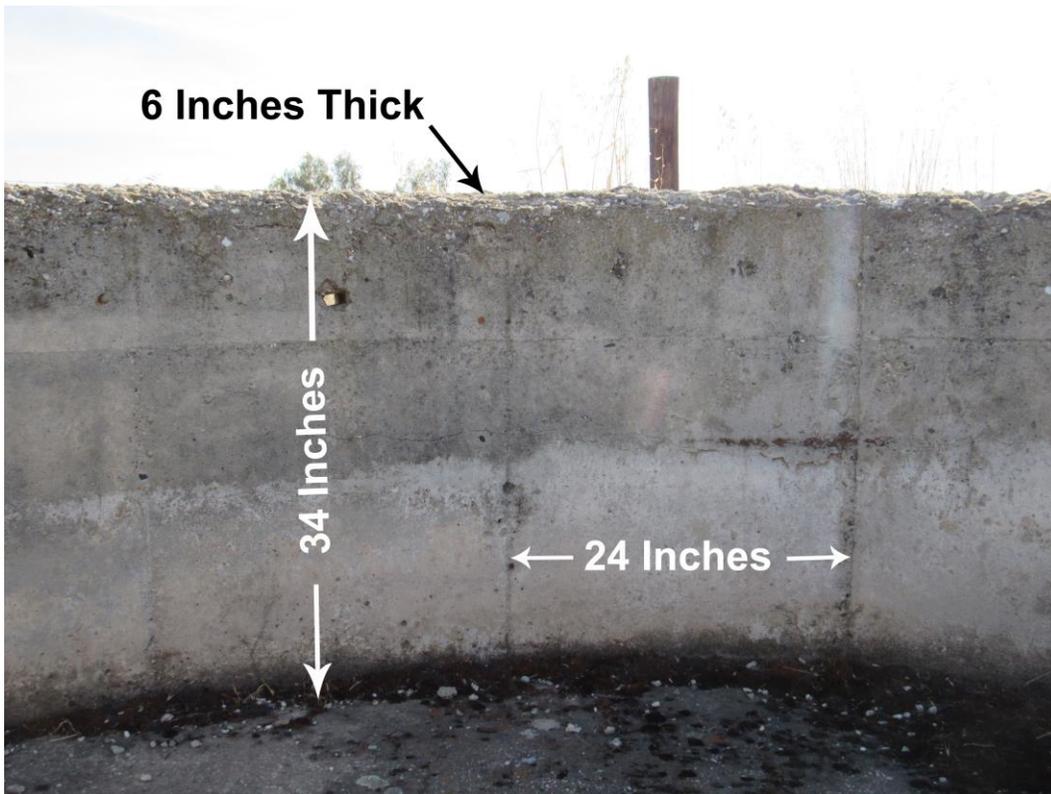
C) View looking to the southeast with the water trough, iron pipe along the west side. 10/26/18. Acc. #2-01810fr643



D) View looking to south with the water trough (left) and iron pipe scatter along the west side. 10/26/18. Acc. #201810fr644



E) View looking to the south with the water trough, Will T Road in background. 10/26/18. Acc. #2-01810fr648



F) View looking at a section of the interior of the water trough with measurements. 10/26/18. Acc. #201810fr650edit

