

## **Draft Initial Study**

### **Proposed Mitigated Negative Declaration**

#### **Thorntree Grading and Mini Storage (ER 19-01)**

South side of Thorntree Drive, Chico, CA, APN 016-200-122



#### **Lead Agency:**

City of Chico  
Community Development Department  
411 Main Street  
Chico, CA 95928

**July 2019**

#### **Prepared By:**

**Shannon Costa, Associate Planner**

**Draft Initial Study / Environmental Checklist  
City of Chico  
Environmental Coordination and Review  
Thorntree Grading Plan (ER 19-01)**

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**Draft Initial Study / Environmental Checklist  
City of Chico  
Environmental Coordination and Review  
Thorntree Grading and Mini Storage**

**I. PROJECT DESCRIPTION**

- A. Project Title:** Thorntree Grading and Mini Storage (ER 19-01)
- B. Project Location:** South side of Thorntree Drive, approximately 700 feet easterly of Cohasset Road
- C. Application:** Environmental review, grading permit
- D. Assessor's Parcel Number (APN):** 016-200-122
- E. Parcel Size:** 6.9 acres
- F. General Plan Designation:** Industrial Office Mixed Use (IOMU)
- G. Zoning:** Industrial Office Mixed Use (IOMU)

**Environmental Setting:** The project site is situated at the southerly side of Thorntree Drive, approximately 700 feet easterly of Cohasset Road, within the City of Chico city limits (**see Figure 1, Location Map**). The project site is undeveloped land, recently used for storage of fill dirt from an off-site location. Approximately 1/3 of the site is covered in 6-foot-tall dirt mounds containing rock and other unknown debris. The remaining 2/3 of the property is covered primarily in native grasses and forbs with some native species present; no trees or shrubs are found within the project area. The site may have historically been used for animal grazing. Surrounding land uses include vacant lands to the east, west and south, and industrial/commercial uses to the north. The topography of the site is gentle and flat, with an elevation of approximately 198 feet above mean sea level. The most prominent man-made feature within the site is the Sycamore Creek Federal Setback Levee, present on the north bank of Sycamore Creek and south of the proposed project area.

**Project Description:** The proposed project involves grading of an approximate 6.9-acre area to facilitate the future development of the site with a personal storage facility (mini storage) (**see Figure 2, Grading Plan**). The grading will involve a cut volume of approximately 1,017 cubic yards with a fill volume of approximately 8,550 cubic yards of material across the site. The types of equipment used for the project may include, but are not limited to, a grader, dump haul trucks, backhoe, excavator, and work trucks. An upland flow conveyance ditch will be constructed along the eastern, southern, and a portion of the western boundaries of the property. The conveyance ditch will be approximately 10-feet wide and the base approximately 2-feet deep. The bottom of the bio-retention basin will contain a subsurface drainage/storage layer consisting of gravel overlain with a layer of soil. Native grasses will be planted along the slope of the basin to prevent erosion. The basin will also include an outfall weir near its southern intersection with the upland flow ditch.

The project will maintain a distance of 15-feet away from the tow of the existing Sycamore Creek Federal Setback Levee. With the addition of the 10-foot width for the upland flow conveyance ditch the distance grading will maintain from the setback levee is 25-feet. The project is approximately 110 feet away from the top of bank of Sycamore Creek and approximately 165 feet from the centerline of Sycamore Creek.

The proposed grading is to facilitate the future development of the site with a personal storage facility (mini storage). The project involves approximately 68,800 square feet of building footprint, including five storage buildings and one office building. Access to the site would be provided by a private driveway from Thorntree Drive. Other site improvements include landscaping, parking areas and new lighting, such as pole-mounted box lights and building mounted pack-lights. Full Site Design and Architectural Review in compliance with Chico Municipal Code (CMC) section 19.18 will be required at a future date, at which time detailed plans will be reviewed and conditioned as necessary to ensure adherence to all applicable CMC development requirements.

**H. Public Agency Approvals:**

1. Grading Permit (City of Chico)
2. Water Quality Certification Permit (California Regional Water Quality Control Board)

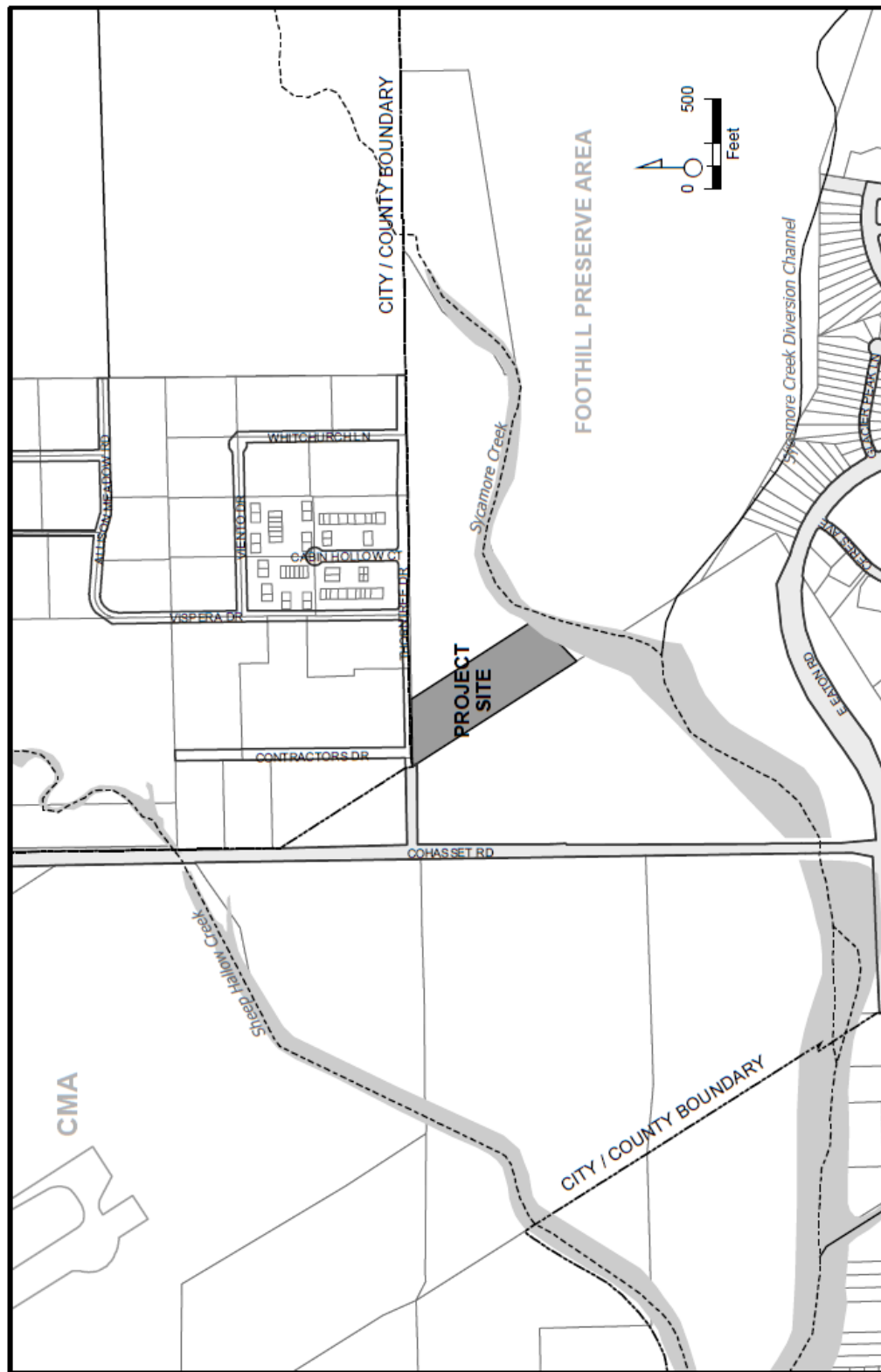
**I. Applicant:** Don Brown, 2865 Cactus Avenue, Chico, Ca 95973

**J. City Contact:**

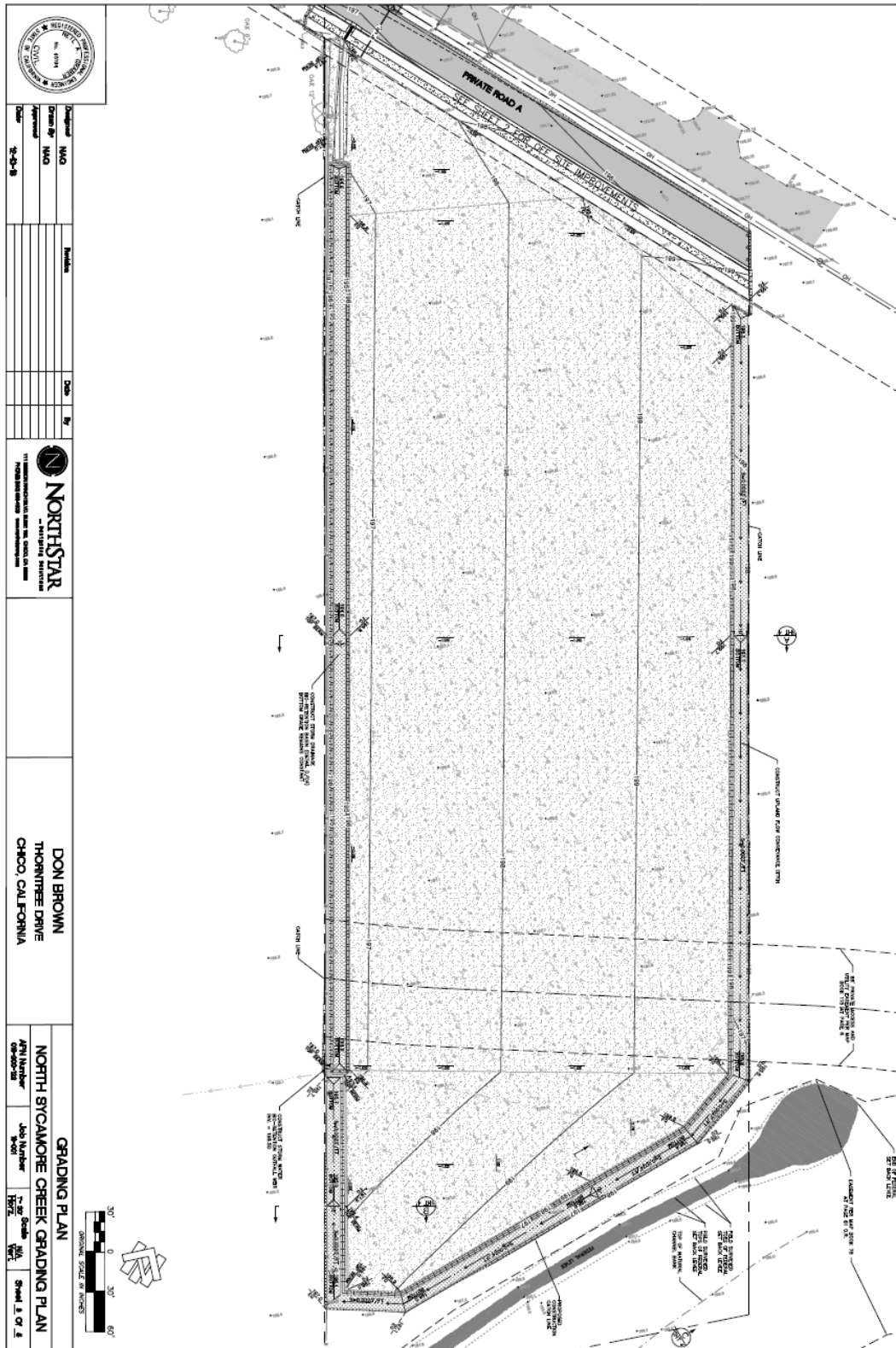
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**K. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?** The City of Chico sent a notification and opportunity to consult letter to the Mechoopda Indian Tribe of Chico Rancheria on March 18, 2019.

**FIGURE 1 - LOCATON MAP**



**FIGURE 2 - GRADING PLAN**



### **I. 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.

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Aesthetics           | <input type="checkbox"/> Geology/Soils               | <input type="checkbox"/> Noise                      |
| <input type="checkbox"/> Agriculture and Forest          | <input type="checkbox"/> Greenhouse Gas Emissions    | <input type="checkbox"/> Open Space/Recreation      |
| <input type="checkbox"/> Air Quality                     | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Population/Housing         |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Hydrology/Water Quality     | <input type="checkbox"/> Public Services            |
| <input checked="" type="checkbox"/> Cultural Resources   | <input type="checkbox"/> Land Use and Planning       | <input type="checkbox"/> Transportation/Circulation |
| <input type="checkbox"/> Utilities                       |  |   |

### **III. COMMUNITY DEVELOPMENT DIRECTOR DETERMINATION**

On the basis of this initial evaluation:

- 
- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION 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 have a potentially significant impact unless mitigated, but at least one effect has been adequately analyzed in an earlier document pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT (EIR) 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, there WILL NOT be a significant effect in this case because all potentially significant effects have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and 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. No further study is required.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Shannon Costa, Associate Planner

\_\_\_\_\_  
 Date

#### **IV. EVALUATION OF ENVIRONMENTAL IMPACTS**

- Responses to the following questions and related discussion indicate if the proposed project will have or potentially have a significant adverse impact on the environment.
- A brief explanation is required for all answers except "No Impact" answers that are adequately supported by referenced information sources. 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 or general standards.
- 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.
- Once it has been 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 is at least one "Potentially Significant Impact" entry when the determination is made an EIR is required.
- Negative Declaration: "Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The initial study will describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 4, "Earlier Analysis," may be cross-referenced).
- Earlier analyses may be used where, pursuant to tiering, a program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)].
- Initial studies may incorporate references to information sources for potential impacts (e.g. the general plan or zoning ordinances, etc.). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list attached, and other sources used or individuals contacted are cited in the discussion.
- 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 significant.

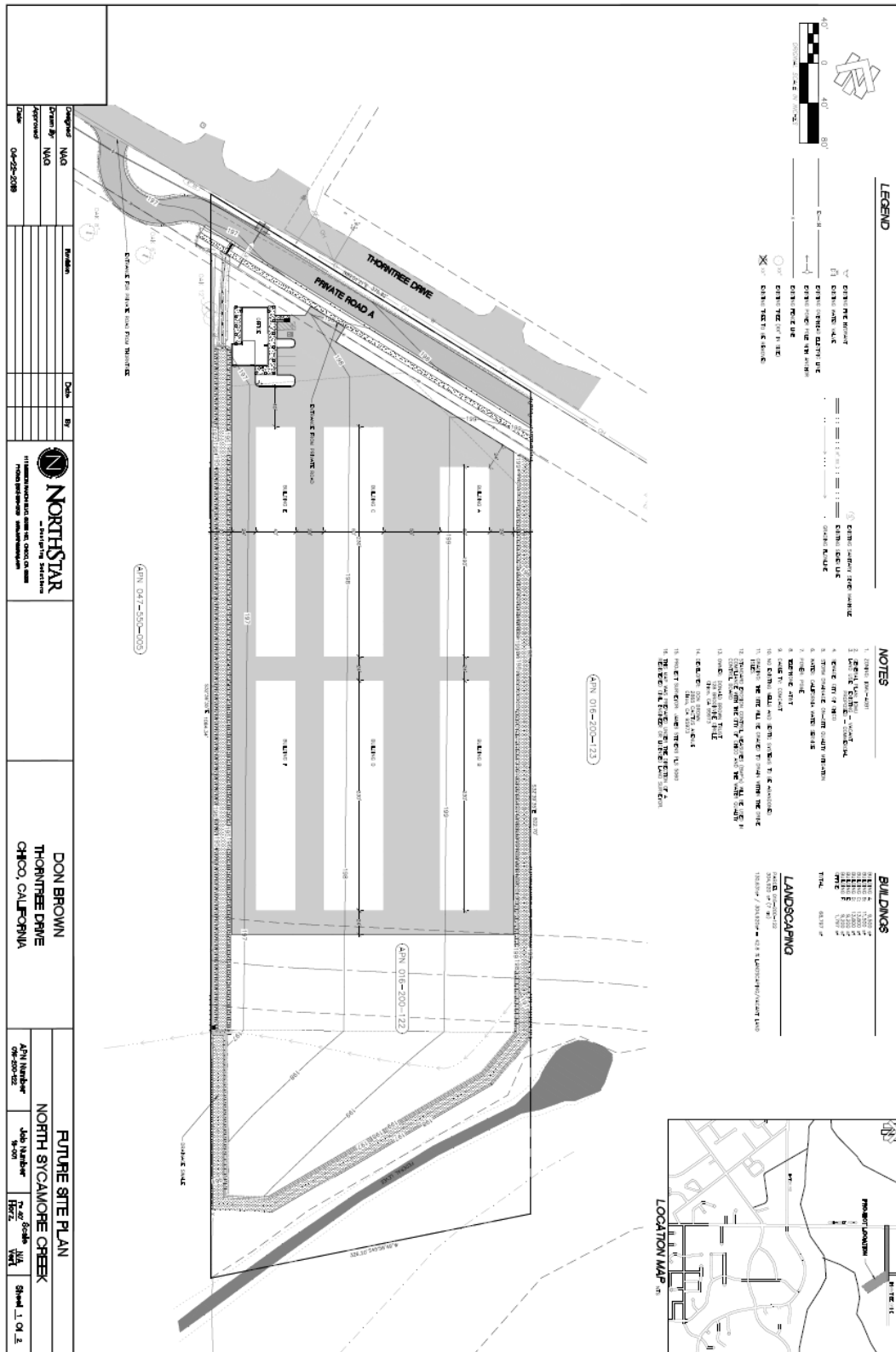


<b>A. Aesthetics</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Will the project or its related activities:				
1. Have a substantial adverse effect on a scenic vista, including scenic roadways as defined in the General Plan, or a Federal Wild and Scenic River?				X
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
3. Affect lands preserved under a scenic easement or contract?				X
4. Substantially degrade the existing visual character or quality of the site and its surroundings including the scenic quality of the foothills as addressed in the General Plan?				X
5. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

#### **DISCUSSION:**

**A.1-A.4. No Impact.** The proposed grading is to facilitate the future development of the site with a personal storage facility (mini storage). The project involves approximately 68,800 square feet of building footprint, including five storage buildings and one office building (**Figure 3**). Access to the site would be provided by a private access road from Thorntree Drive. Details regarding driveway access locations are yet to be determined but would not ultimately affect the environmental review of the project. Other site improvements include landscaping, parking areas and new lighting, such as pole-mounted box lights and building mounted pack-lights. Full Site Design and Architectural Review in compliance with Chico Municipal Code (CMC) section 19.18 will be required at a future date, at which time detailed plans will be reviewed and conditioned as necessary to ensure adherence to all applicable CMC development requirements. The proposed grading and subsequent development of the site will not have an adverse effect on a scenic vista, including scenic roadways, federal or scenic rivers, historic buildings, or state scenic highways as there are no designated scenic vistas or designated scenic resources present within the project site. The project will have **No Impact** on any scenic vista, roadway, or resource and **No Impact** on any lands preserved under a scenic easement or contract.

**A.5.** Development of the project will include lighting sources not currently present at the site. Lighting sources will include lighting in the parking area surrounding the storage and office buildings, exterior lighting on the building façades, and lighting sources inside the office building. Because of the nature of the intended personal storage use, it can be expected that new light sources could occur continuously over a 24-hour period for security reasons. All exterior lighting is required to adhere to the City of Chico Municipal Code (CMC) standards regarding full cut off designs and downward orientation to reduce glare. Proposed lighting does have the potential to spill onto neighboring properties and result in substantial sources of light and glare. Incorporation of a condition limiting the overall height of parking lot light poles would reduce the potential for impacts for substantial light and glare affecting day or nighttime views to a level that is **Less Than Significant**.



<b>B. Agriculture and Forest Resources:</b> Would the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. 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?				X
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
3. 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))?				X
4. Result in the loss of forest land or conversion of forest land to non-forest use?				X
5. 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?				X

#### **DISCUSSION:**

**B.1. –B.5. No Impact.** The project will not convert Prime or Unique Farmland, or Farmland of Statewide Importance. The California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program's 'Butte County Important Farmland 2010' map, identifies the project site as "Urban and Built-up Land" with a small portion nearest Lindo Channel as "Other Land" (see <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/but10.pdf>).

The project will not conflict with existing zoning for agricultural use or forest land and is not under a Williamson Act Contract. The project will not result in the loss of forest land, conversion of forest land, or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland or forest land. The site is located a vacant parcel with no agriculture or timber resources, is surrounded by existing urban development, and is designated for residential development in the Chico 2030 General Plan. The project will result in **No Impact** to Agriculture and Forest Resources.

**MITIGATION:** None required.

### C. Air Quality

Will the project or its related activities:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Conflict with or obstruct implementation of the applicable air quality plans?			X	
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.			X	
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
4. Expose sensitive receptors to substantial pollutant concentrations?			X	
5. Create objectionable odors affecting a substantial number of people?			X	

### **DISCUSSION:**

The proposed project is located in Butte County, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB also includes Tehama, Shasta, Glenn, Sutter, Colusa, Yolo, and Yuba Counties, plus portions of Placer County and Solano County. In general, the SVAB is flat, it is bordered on the east, west, and north by mountains which can entrap pollutants. Air flows into the basin through the Carquinez Strait, bringing pollutants from the Bay Area into the region. The summers in the basin bring intense heat and sunlight leading to higher ozone concentrations. Inversions in the summer and fall generally have accompanying light winds that do not provide adequate dispersal of airborne pollutants.

According to Butte County Air Quality Management District (BCAQMD or Air District) California Environmental Quality Act (CEQA) Air Quality Handbook, Butte County is designated as a federal and state non-attainment area for ozone and particulate matter (BCAQMD 2014).

**Table 1: Butte County Ambient Air Quality Attainment Status**

<b>BUTTE COUNTY AMBIENT AIR QUALITY ATTAINMENT STATUS (2015)</b>		
<b>POLLUTANT</b>	<b>STATE</b>	<b>FEDERAL</b>
1-hour Ozone	<b>Nonattainment</b>	--
8-hour Ozone	<b>Nonattainment</b>	<b>Nonattainment</b>
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10**	<b>Nonattainment</b>	Attainment
24-Hour PM2.5**	No Standard	Attainment
Annual PM10**	Attainment	No Standard
Annual PM2.5**	<b>Nonattainment</b>	Attainment
** PM10: Respirable particulate matter less than 10 microns in size. PM2.5: Fine particulate matter less than 2.5 microns in size.		

Potential air quality impacts related to development are separated into two categories:

- 1) Temporary impacts resulting from construction-related activities (earth moving and heavy-duty vehicle emissions), and
- 2) Long-term indirect source emission impacts related to ongoing operations, such as motor vehicle, water and heating usage, etc.

#### Construction

Construction-related activities such as grading, and operation of construction vehicles would create a temporary increase in fugitive dust within the immediate vicinity of the project site and contribute temporarily to slight increases in vehicle emissions (ozone precursor emissions, such as reactive organic gases (ROG) and oxides of nitrogen (NO<sub>x</sub>), and fine particulate matter). All stationary construction equipment, other than internal combustion engines less than 50 horsepower, require an "Authority to Construct" and "Permit to Operate" from the District. Emissions are prevented from creating a nuisance to surrounding properties under BCAQMD Rule 200 *Nuisance*, and visible emissions from stationary diesel-powered equipment are also regulated under BCAQMD Rule 201 *Visible Emissions*.

With regard to fugitive dust, the majority of the particulate generated as a result of grading operations is anticipated to quickly settle. Under the Air District's Rule 205 (Fugitive Dust Emissions) all development projects are required to minimize fugitive dust emissions by implementing Best Management Practices (BMPs) for dust control. These BMPs include but are not limited to the following:

- Watering de-stabilized surfaces and stock piles to minimize windborne dust.
- Ceasing operations when high winds are present.
- Covering or watering loose material during transport.
- Minimizing the amount of disturbed area during construction.
- Seeding and watering any portions of the site that will remain inactive for 3 months or longer.
- Paving, periodically watering, or chemically stabilizing on-site construction roads.
- Minimizing exhaust emissions by maintaining equipment in good repair and tuning engines according to manufacturer specifications.
- Minimizing engine idle time, particularly during smog season (May-October).

Continuing the City practice of ensuring that grading plans include fugitive dust BMPs and compliance with existing BCAQMD rules will ensure that construction related dust impacts are minimized.

#### Operation

The District's CEQA Air Quality Handbook provides screening criteria for when a quantified air emissions analysis is required to assess and mitigate potential air quality impacts from non-exempt CEQA projects. Projects that fall below screening thresholds need only to implement best practices to ensure that operational air quality impacts remain less than significant. The screening criteria are as follows:

**Table 1 - Screening Criteria for Criteria Air Pollutants**

<b>Land Use Type</b>	<b>Model Emissions for Project Greater Than:</b>
Single Family Unit Residential	30 units
Multi-Family Residential	75 units
Commercial	15,000 sq ft
Educational	24,000 sq ft
Retail	11,000 sq ft
Recreational	5,500 sq ft
Industrial	59,000 sq ft

Source: BCAQMD 2014

The proposed project type and size does not fall below screening criteria, therefore construction and operational project emissions were quantified using California Emissions Estimator (CalEEMod) Version 2013.2.2 (CAPCOA 2013) (**Appendix A**), however, modeled emissions fall below thresholds established by BCAQMD as described in Table 2.

**Table 2: Butte County Air Quality Management District Thresholds for Significance for Construction and Operational Related Criteria Air Pollutants and Proposed Project Modeled Emissions**

BCAQMD Thresholds			
Phase	ROG	NO <sub>x</sub>	PM <sub>10</sub> or smaller
Construction Thresholds	137 lbs/day, not to exceed 4.5 tons/year	137 lbs/day, not to exceed 4.5 tons/year	80 lbs/day
Construction Modeled Emissions	79.07 lbs/day	45.67 lbs/day	12.17 lbs/day
Operational Thresholds	25 lbs/day	25 lbs/day	80 lbs/day
Operational Modeled Emissions	2.33 lbs/day	2.87 lbs/day	0.27 lbs/day

To minimize air quality impacts during the construction phase of the project, specific best practices shall be incorporated during initial grading and improvement phases of the project as specified in Appendix C of the Butte County Air Quality Management District's (BCAQMD) CEQA Air Quality Handbook, October 23, 2014, available at [http://www.bcaqmd.org/page/\\_files/CEQA-Handbook-Appendices-2014.pdf](http://www.bcaqmd.org/page/_files/CEQA-Handbook-Appendices-2014.pdf). Examples of these types of measures include but are not limited to:

- Limiting idling of construction vehicles to 5 minutes or less.
- Ensuring that all small engines are tuned to the manufacturer's specifications.
- Powering diesel equipment with Air Resources Board-certified motor vehicle diesel fuel.
- Utilizing construction equipment that meets ARB's 2007 certification standard or cleaner.
- Using electric powered equipment when feasible.

**C.1. – C.3. Less Than Significant with Mitigation Incorporated.** The project will neither conflict with nor obstruct implementation of the applicable air quality plan for the Northern Sacramento Valley, nor will the project violate any air quality standard or contribute substantially to an existing or projected air quality violation. The project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

**C.4. - C.5. Less Than Significant.** Grading activities would result in a temporary increase of odors associated with diesel-fueled vehicles on-site and to adjacent properties. The proposed project would not expose sensitive receptors (i.e. school, day care center or elder care facility) to substantial pollutant concentrations or create significant objectionable odors. BCAQMD's CEQA Air Quality Handbook provides screening criteria identifying screening levels for potential odor sources for which the project type is not identified as being type of facility that would require additional screening.

Additionally, implementation of standard BMP's reduces potential construction and other short-term odor related air quality impacts, to a **Less Than Significant** level.

<b>D. Biological Resources</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species as listed and mapped in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.		X		
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
4. 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?			X	
5. Result in the fragmentation of an existing wildlife habitat, such as blue oak woodland or riparian, and an increase in the amount of edge with adjacent habitats.			X	
6. Conflict with any local policies or ordinances, protecting biological resources?			X	

## **DISCUSSION:**

**D.1.-4. Less Than Significant with Mitigation.** NorthStar biologists conducted a biological resources evaluation of the site and surrounding habitat to examine the site for potentially sensitive biological resources. (see **Appendix B**). The survey was conducted by biologists Matt Rogers, Andrew Honeycutt and Jake Silvertson (Northstar) on June 7, 2018. Prior to conducting the onsite survey, existing databases, topographic maps, and aerial photos of the Biological Survey Area (BSA) consisting of the site plus a surrounding 200-foot buffer were reviewed and areas of potential habitat noted. Since the date of the biological survey, the site has been used for dumping and storage of dirt mounds from an off-site location. These mounds are not accounted for in the survey and it is unknown what their impacts to the site could be.

After conducting the survey, agency special-status species lists were reviewed and edited taking into account existing conditions observed within the BSA. NorthStar obtained lists of special-status species that potentially occur in the vicinity of the BSA from the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation, the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), and the California Native Plant Society's (CNPS) Online

Rare and Endangered Plant Inventory v8-02. The following narrative focuses on the species identified in agency lists and their potential to occur within the project area. After an examination of the habitat present on-site, there are no federally listed species with potential to occur within the project area or the surroundings. The only special status species with potential to occur on-site are birds protected by the MBTA.

### **Plants**

There were two federally listed plant species found on the official USFWS list Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) and slender Orcutt grass (*Orcuttia tenuis*). Two additional federally listed species were identified on the CDFW and CNPS agency lists including Greene's tuctoria (*Tuctoria greenii*), and Hoover's spurge (*Euphorbia hooveri*). All four of these species are associated with vernal pool habitats in California. There are no vernal pools or wetlands present within the project area completely eliminating the potential for those federally listed species to occur. Many of the other special-status species listed in agency lists are found in vernal pools, wetlands, and mesic habitats which are not present within the BSA. The BSA is heavily invaded by non-native and invasive grass species, much of the BSA is covered in slender oat and medusa head eliminating the potential habitat for the special-status species identified in the agency lists. Nonnative and invasive grasses are extremely adept at utilizing moisture and nutrients in the upper soil layers, limiting availability for more deeply rooted native species. Additionally, non-native and invasive grasses produce a layer of thatch that covers the ground limiting germination for special-status species. Due to the disturbed nature of the grassland present within the BSA no special-status plant species have the potential to occur on-site.

### **Invertebrates**

Four federally listed invertebrates were found on the official USFWS list including valley elderberry longhorn beetle (VELB, *Desmocerus californicus dimorphus*), conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*). The VELB is found exclusively in blue elderberry (*Sambucus nigra* spp. *caerulea*) shrubs in California's Central Valley where the species utilizes the shrubs for all life stages. Females will lay eggs on the bark of the shrub where they hatch and the larvae will bore into a stem where it will live for one to two years feeding on the pith. After developing, an adult beetle will exit the stem and emerge to seek a mate. The adults are not particularly strong fliers and do not appear to disperse very far. The beetle will utilize shrubs with stems at least one inch in diameter. Typically, blue elderberry shrubs are found along riparian corridors at lower elevations. A majority of the valley elderberry longhorn beetle occurrences in the northern Central Valley are found along the main stem of the Sacramento River. At a local level, much of the variation in VELB occupancy of elderberry results from variables including elderberry condition, elderberry density, water availability, and the health of the riparian habitat. Research indicates that healthy riparian systems with dense elderberry clumps are the primary habitat of the beetle. No elderberry shrubs are present within the BSA or within the vicinity of the proposed project, completely eliminating the potential for the species to occur. Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are species that rely on vernal pool landscapes in northern California. They require ephemeral water to complete their life cycles. There are no vernal pools or wetland habitats present within the project area completely eliminating the potential for these species to occur.

### **Fish**

The only federally listed fish species found on the official USFWS list is delta smelt (*Hypomesus transpacificus*). The CDFW list contains two additional species, Central Valley Spring Run Chinook Salmon (*Oncorhynchus tshawytscha*), and Central Valley steelhead (*Oncorhynchus mykiss*). Delta smelt are confined to the Delta region of California in estuary habitats. Spring Run Chinook Salmon and Central valley steelhead are found on the Sacramento River and its tributaries, favoring cold and clean water for holding and spawning. The project area does not contain any riverine habitat that would support the four federally listed species found on the agency lists. There is no potential for these species to be affected by the proposed project.

### **Reptiles and Amphibians**

Two federally listed species were found on the official USFWS list including giant garter snake (*Thamnophis gigas*) and California red-legged frog (*Rana draytonii*). The giant garter snake is an endemic species found only within California's Central Valley. The species inhabits seasonal and permanent marsh and wetland habitat, low gradient streams, sloughs, small lakes, and adjacent uplands but will also utilize



agricultural wetlands such as irrigation and drainage canals. Due to direct loss of habitat the species is especially reliant on rice in the Central Valley. The nearest known occurrence of giant garter snake in Butte County is approximately 7.4 miles to the southwest of the project site at the Chico Water Pollution Control Plant. Additionally, there is no aquatic habitat to support the species within the project area. Therefore, there is no potential for the species to occur within the project area. The California red-legged frog is found in deep slow-moving water with dense stands of overhanging willow, cattail, or bulrush. California red-legged frogs have been extirpated from most historical localities including the Central Valley. There is no potential for the species to occur within the project area as they are presumed extinct from the entire Central Valley. Foothill yellow-legged frog (*Rana boylei*) is found in many environs throughout California from the coast range to the transverse mountains in Los Angeles and throughout northern California west of the Cascade crest. It is found in rocky streams in a variety of habitats including riparian, conifer dominated, chaparral, wet meadow, etc. The species generally is found in partially shaded, shallow stream riffles typically in low to moderate gradient streams, especially for breeding and egg laying. The tadpoles require at least three to four months to develop, therefore, the species is rarely found away from permanent water sources. American bullfrog (*Lithobates catesbeiana*) is a voracious predator of foothill yellow-legged frogs of all life stages and is one of the drivers of the species decline in California. There are no permanent sources of water within the BSA that could support foothill yellow-legged frog. Sycamore Creek is ephemeral and only contains water during the winter and early spring. Additionally, the nearest known occurrences are over five miles from the BSA in the foothills near Richardson Springs where permanent water is present. The record found near the confluence of Big Chico Creek and the Sacramento River is presumed extinct as they have not been detected at the location for over 50 years. A prominent expert on the species made that determination. Northwestern pond turtle is found in a variety of aquatic habitats within California and is the only abundant native turtle in the state. They are associated with permanent or nearly permanent water in a wide variety of habitats and elevations ranging from sea-level to 4,500 feet. The species requires basking sites such as rocks, submerged logs, mud banks, etc. Nests are typically constructed along banks of permanent water in soils at least four inches deep. There is no permanent or nearly permanent water within the BSA, water in Sycamore Creek is only ephemeral present during the rainy season. Western spadefoot (*Spea hammondi*) is a relatively small, smooth skinned toad, with white and orange tipped tubercles on its back, and distinctive vertical pupils. It is named for the sharp-edged "spades" on its hind feet utilized for digging. The species occupies grassland, sage scrub, and woodland habitats from Tehama County to Baja. The species is dependent on ephemeral pools or slow-moving water courses that are predator free for breeding. Larval development can be rapid (approximately 30 days) if vernal pools are drying. There is no ephemeral water found within the project area. Sycamore Creek may provide suitable habitat, but the area is heavily invaded with non-native predators including bullfrog, thus limiting the potential for the species to utilize this area for breeding.

### **Mammals**

The special-status mammals found in **Attachment E** primarily consist of bat species such as hoary bat, pallid bat, silver-haired bat, western mastiff bat, and Yuma myotis. There are no potential roosting habitat for any of these species as there are no trees or rocky cliffs found in the BSA. There is potential foraging habitat above the grassland within the BSA, however, it is of lower quality than the greater surrounding areas such as lower and upper Bidwell Park where a variety of habitats are present providing a more robust prey base.

### **Migratory Birds/Raptors**

The only federally listed bird species found on the agency lists was the federally endangered least Bell's vireo (*Vireo bellii pusillus*). The least Bell's vireo is found in willow scrub habitats within riparian habitats in California. The species has not been detected in the northern Central Valley for a very long time, the most recent record from the area is an occurrence from the Chico area in the early 1900's. The most recent record from the Central Valley was from the Yolo Bypass in 2011 over 80 miles from the project area. There is no willow scrub or riparian habitat found within the project area, therefore, there is no potential for the species to occur. Many of the other species listed require trees or shrubs for nesting and none are present within the project area. The cottonwoods found adjacent to Sycamore Creek could provide suitable habitat for raptors such as Swainson's hawk, however, no large stick nests were observed during the biological survey of the site. Migratory birds are protected in varying degrees under California Fish and Game code, Section 3503.5, and the Migratory Bird Treaty Act (MBTA). The habitat within the project area could provide suitable nesting and foraging habitat for several species protected by the MBTA including western meadowlark (*Sturnella neglecta*), lark sparrow (*Chondestes grammacus*), savannah

sparrow (*Passerculus sandwichensis*), Lincoln's sparrow (*Melospiza lincolnii*) and northern harrier (*Circus hudsonius*). Additionally, species protected by the MBTA were observed during the biological survey of the project area. However, there was no evidence they were utilizing the project area for nesting.

All project activities will be conducted in compliance with the federal Migratory Bird Treaty Act and Fish and Game Code § 3503 and 3503.5, though the project is not likely to result in impacts to nesting raptors, owls, or migratory birds because of the highly-disturbed nature of the site and active surrounding neighborhood. However, there remains a potential for the site to provide suitable habitat for migratory birds and/or raptors. Requiring pre-construction field surveys and avoiding any active nests found prior to construction would reduce the potential for impacts to nesting raptors and migratory birds. Mitigation measure D.1 would ensure impacts to special-status species would be avoided or minimized to **Less than Significant Impact**.

**D.5. Less Than Significant.** The proposed project will not conflict with any local ordinances or policies protecting biological resources. The site contains no trees or shrubs for removal, therefore by the City of Chico Municipal Code Section 16.66 (Tree Preservation Measures) does not apply. Therefore, impacts would be considered **Less Than Significant**.

**D.6. Less Than Significant.** The proposed project will not conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or any other conservation plan. The Butte Regional Conservation Plan is both a federal HCP and state NCCP but it has yet to be adopted. Therefore, impacts would be considered **Less Than Significant**.

#### **MITIGATION:**

**MITIGATION D.1 (BIOLOGICAL):** Vegetation removal or ground disturbance in areas where nests of birds protected by the MBTA (16 USC 703) potentially occur should be conducted between September 1 and February 28 (i.e. the non-breeding season). If vegetation removal or ground disturbance occurs during the breeding season (i.e. March 1 to August 31) then it is recommended that a qualified biologist perform the following:

- Conduct a survey for raptors and all other birds protected by the MBTA and map all nests located within 250 feet of construction areas. The survey should be conducted no more than two weeks prior to the start of project activities.
- If an active nest is located, develop buffer zones around active nests that are sufficient enough in size to ensure impacts to nesting species are avoided. Project activities shall be prohibited within the buffer zones until the young have fledged or the nest fails, as determined by a qualified biologist.

**MITIGATION MONITORING D.1:** Prior to issuance of the grading permit, Planning staff shall verify that Mitigation Measure D.1 is incorporated into the construction documents, as appropriate.

<b>E. Cultural Resources</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Cause a substantial adverse change in the significance of an historical resource as defined in PRC Section 15064.5?		X		
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to PRC Section 15064.5?		X		
3. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?		X		
4. Disturb any human remains, including those interred outside of formal cemeteries?		X		

#### **DISCUSSION:**

**E.1. – E.4. Less Than Significant with Mitigation Incorporated.** The project site is in an area of high archaeological sensitivity as designated by the Northeast Information Center and the Chico 2030 General Plan. However, the project is not anticipated to cause a substantial adverse change in the significance of a historical resource, archaeological resource, directly or indirectly destroy a unique paleontological resource or site, geological feature, or unique geological feature. The project is not anticipated to disturb any human remains. Due to the disturbed character of the site, the potential to encounter surface-level cultural resources is considered remote.

Although no known cultural resources exist at the site, there is a potential that site-disturbing activities could uncover previously unrecorded cultural resources. Halting construction work and observing standard protocols for contacting City staff and arranging for an evaluation of cultural resources in the case of a discovery is a required standard City practice, typically noted on all grading and building plans. In the event that resources are inadvertently, Implementation of Mitigation Q.1 would reduce impacts to a less-than-significant level. See Impact Q. Tribal Cultural Resources for mitigation measure specifics. **Less than Significant with Mitigation Incorporated.**

**MITIGATION:** See Mitigation Q.2

<b>F. Geology/Soils</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Expose people or structure to potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
a. 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? (Div. of Mines & Geology Special Publication 42)?			X	
b. Strong seismic ground shaking?			X	
c. Seismic-related ground failure/liquefaction?			X	
d. Landslides?			X	
2. Result in substantial soil erosion or the loss of topsoil?			X	
3. 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?			X	
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
5. 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, or is otherwise not consistent with the Chico Nitrate Action Plan or policies for sewer service control?				X

## **DISCUSSION:**

**F.1. Less Than Significant.** The City of Chico is located in one of the least active seismic regions in California and contains no active faults. Currently, there are no designated Alquist-Priolo Special Studies Zones within the Planning Area, nor are there any known or inferred active faults. Thus, the potential for ground rupture within the Chico area is considered very low. Under existing regulations, all future structures will incorporate California Building Code standards into the design and construction that are designed to minimize potential impacts associated with ground-shaking during an earthquake. The potential for seismically-related ground failure or landslides is considered **Less Than Significant**.

**F.2.-F.4. Less Than Significant.** Development of the site will be subject to the City's grading ordinance, which requires the inclusion of appropriate erosion control and sediment transport best management practices (BMPs) as standard conditions of grading permit issuance. Additionally, under the applicable National Pollution Discharge Elimination System (NPDES) permit from the Regional Water Quality Control

Board (RWQCB) per §402 of the Clean Water Act, existing state/city storm water regulations require applicants disturbing over one acre to file a Storm Water Pollution Prevention Plan (SWPPP) with the State (which is confirmed by City staff prior to permit issuance) to gain coverage of the activity under the City's Construction General Permit. The project SWPPP is required to include specific measures to minimize potential erosion.

Further, the City and the Butte County Air Quality Management District require implementation of all applicable fugitive dust control measures, which further reduces the potential for construction-generated erosion. Development of the site will also be required to meet all requirements of the California Building Code which will address potential issues of ground shaking, soil swell/shrink, and the potential for liquefaction. As a result, potential future impacts relating to geology and soils are considered to be **Less Than Significant**.

**F.5. No Impact.** The proposed project involves grading the project site, no septic or alternative wastewater disposal systems are proposed as part of this project. The project will result in **No Impact**.

**MITIGATION:** None Required

<b>G. Greenhouse Gas Emissions</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Will the project or its related activities:				
1. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

## **DISCUSSION:**

**G.1.-2. Less Than Significant.** In 2012, the Chico City Council adopted a Climate Action Plan (CAP) which sets forth objectives and actions that will be undertaken to meet the City's GHG emission reduction target of 25 percent below 2005 levels by the year 2020. This target is consistent with the State Global Warming Solutions Act of 2006 (AB 32, Health & Safety Code, Section 38501[a]).

Development and implementation of the CAP are directed by a number of goals, policies and actions in the City's General Plan (SUS-6, SUS-6.1, SUS-6.2, SUS-6.2.1, SUS-6.2.2, SUS-6.2.3, S-1.2 and OS-4.3). Growth and development assumptions used for the CAP are consistent with the level of development anticipated in the General Plan Environmental Impact Report (EIR). The actions in the CAP, in most cases, mirror adopted General Plan policies calling for energy efficiency, water conservation, waste minimization and diversion, reduction of vehicle miles traveled, and preservation of open space and sensitive habitat.

Chico's CAP, in conjunction with General Plan policies, meet State criteria for tiering and streamlining the analysis of GHG emissions in subsequent CEQA project evaluation. Therefore, to the extent that a development project is consistent with CAP requirements, potential impacts with regard to GHG emissions for that project are considered to be **Less Than Significant**.

**MITIGATION:** None Required.

<b>H. Hazards /Hazardous Materials</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
2. Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
4. 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?				X
5. For a project located within the airport land use plan, would the project result in a safety hazard for people residing or working in the Study Area?				X
6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the Study Area?				X
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

## **DISCUSSION:**

**H.1. – H.2. Less Than Significant.** Grading activities would require limited, short-term handling of hazardous materials, such as fueling and servicing equipment on site with fuels, lubricating fluids and solvents. Any handling, transportation, use, or disposal of hazardous materials would comply with all applicable federal, state, and local regulations. Therefore, impacts relating to handling and transporting of hazardous materials would be considered **Less Than Significant**.

**H.3 - H.4 and H.6 – H.8. No Impact.** The proposed project site is not identified as a hazardous site at the local, state, or federal levels, including waste sites listed pursuant to Government Code Section 65962.5. The project is not located within a quarter mile of an existing or proposed school, a public or private airstrip, nor will it result in a safety hazard for people working or residing in the area. The proposed project will not impair implementation or interfere with an adopted emergency response or evacuation plan. The proposed grading project will not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

**H.5 – Less Than Significant.** The project site is located in Zone B1 of the Butte County Airport Land Use Compatibility Plan (BCALUCP). Indoor storage, including mini storage facilities are generally permitted in the B1 zone, when intensity criteria can be met. It is not anticipated that the proposed use, neither during construction nor operation, would exceed the allowed intensity limits (people/acre) allowed by the BCALUCP and is considered a **Less Than Significant** impact.

**MITIGATION:** None Required



<b>I. Hydrology/ Water Quality</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Violate any water quality standards or waste discharge requirements?			X	
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?				X
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
4. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?			X	
5. 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?			X	
6. Otherwise substantially degrade water quality?			X	
7. Place real property within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
10. Inundation by seiche, tsunami, or mudflow?				X

## **DISCUSSION:**

**I.1. Less Than Significant.** Grading activities will result in temporary soil disturbance that could potentially impact water quality within the project site. Under existing State regulations, the project proponent is required to develop and file a Stormwater Pollution Prevention Plan (SWPPP) and obtain a water quality certification or waiver with the central Valley Regional Water Quality Control Board (RWQCB). Through this permitting process, the project will be required to avoid, minimize, and/or compensate for potential discharges into regulated waterways based on a detailed review of the storm drain system design.

Existing State permitting requirements by the RWQCB and development of a SWPPP along with storm water Low Impact Development (LID) requirements, will ensure that the project will not result in the violation of any water quality standards or waste discharge requirements. With these existing permitting and water quality requirements in place, potential impacts to water quality from the project are considered to be **Less Than Significant**.

**I.2. No Impact.** The proposed grading project will not deplete the groundwater supplies as the project only involves site preparation. The proposed grading project will not result in an increase in the overall quantity of impervious surfaces within the project vicinity and would not interfere with groundwater recharge. There will be **No Impact** to groundwater supplies.

**I.3.- I.6. Less Than Significant.** The project would alter the existing drainage patterns at the site, however, it would not result in substantial erosion or siltation on- or off-site, or create excessive runoff because prior to construction the project would have to demonstrate compliance with City/State post-construction storm water management and SWPPP requirements. Such measures include proper disposal of site material and waste, final stabilization of the site, and establishment of a long-term maintenance plan. Under these existing regulations, the project will not substantially degrade water quality drainage systems or provide substantial additional sources of polluted runoff. Under existing City/State requirements for the project to implement BMPs and incorporate LID design standards, storm water impacts from anticipated future construction and operation of the project would be **Less Than Significant**.

**I.7.- I.10. No Impact.** The proposed project involves grading of the site and will not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of a levee or dam failure. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06007C0506E, a majority of the project site is located in Zone X, which is outside the 500-year flood plain, with a small portion located in the mapped 100-year flood plain. The portion that lies within the 100-year flood plain is the Dead Horse Slough water source. The project is not subject to inundation by seiche, tsunami, or mudflow.

**MITIGATION:** None Required

<b>J. Land Use and Planning</b> Will the project or its related activities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Result in physically dividing an established community?				X
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the City of Chico General Plan, Title 19 "Land Use and Development Regulations", or any applicable specific plan) adopted for the purpose of avoiding or mitigating an environmental effect?				X
3. Results in a conflict with any applicable Resource Management or Resource Conservation Plan?				X
4. Result in substantial conflict with the established character, aesthetics or functioning of the surrounding community?				X
5. Result in a project that is a part of a larger project involving a series of cumulative actions?				X
6. Result in displacement of people or business activity?				X

**J.1 - J.6. No Impact.** The project involves grading of the site to accommodate the future development of a personal storage facility. The project site is zoned Industrial Office Mixed Use (IOMU) and is identified as Industrial Office Mixed Use by the General Plan Land Use Diagram. Personal storage facilities are an allowed use in the IOMU zoning district. The proposed project will not physically divide an established community, or conflict with any applicable plans or ordinances adopted to mitigate environmental impacts. The project is not part of a larger project and will not result in displacement of people or business activities, and will not conflict with the established character, aesthetics or functioning of the surrounding community. The project would not result in the displacement of people or business activity. Therefore, with regard to land use conflicts the project is anticipated to have **No Impact**.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>K. Mineral Resources.</b>				
Would the project or its related activities:				
1. 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?				X
2. 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?				X

**DISCUSSION:**

**K.1.-K.2. No Impact.** The project would not result in the loss of availability of a known mineral resource or mineral resource recovery site. Mineral resources are not associated with the project or located on the project site. **No Impact.**

**MITIGATION:** None Required.

<b>L. Noise</b> Will the project or its related activities result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Exposure of persons to or generation of noise levels in excess of standards established in the Chico 2030 General Plan or noise ordinance.			X	
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
3. Exposure of sensitive receptors (residential, parks, hospitals, schools) to exterior noise levels (CNEL) of 65 dBA or higher?			X	
4. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
5. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
6. For a project located within the airport land use plan, would the project expose people residing or working in the Study Area to excessive noise levels?				X
7. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the Study Area to excessive noise levels?				X

## **DISCUSSION:**

**L.1. Less Than Significant.** The proposed grading project would generate noise and result in temporary noise level increases in the project vicinity. However, construction activities would be short-term, expecting to last only 2-4 weeks, and would adhere to the City's noise ordinance which limits the hours during which construction can take place and the maximum noise levels. Implementation of standard BMPs regarding noise attenuation including but not limited to proper tuning of equipment, equipping combustion engine driven equipment with intake and exhaust mufflers, limiting idling, and utilizing quiet compressors where the technology exists, would reduce noise impacts to **Less Than Significant**.

**L.2. Less Than Significant.** Any ground borne vibration due to the grading activities on the site would be temporary in nature and cease once the grading has been completed. Therefore, the impact from ground borne vibration will be **Less Than Significant**.

**L.3. – L.5. Less Than Significant.** Temporary noise events will be generated during the construction phase; however, these impacts are considered to be less than significant because they are short term, and project contractors will be required to comply with the City's existing noise regulations which limit the hours of construction and maximum allowable noise levels.

During the allowable times for construction outlined above, noise-generating activities are limited by the following criteria:

- No individual device or piece of equipment shall produce a noise level exceeding eighty-three (83) dBA at a distance of twenty-five (25) feet from the source. If the device or equipment is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close as possible to twenty-five (25) feet from the equipment, and

- The noise level at any point outside of the property plane of the project shall not exceed eighty-six (86) dBA.

These existing noise limitations imposed by the municipal code for temporary construction activities will ensure that the project would not result in significant temporary increases in noise levels that require mitigation. Therefore, temporary increases in ambient noise levels associated with the project are considered to be **Less Than Significant**.

**L.6 - L.7. No Impact.** The proposed grading project site is not located within an airport land use plan or within two miles of a public or private airport and will not expose people in the project area to excessive noise levels.

**MITIGATION:** None Required

<b>M. Open Space/ Recreation</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Will the project or its related activities:				
1. Affect lands preserved under an open space contract or easement?				X
2. Affect an existing or potential community recreation area?				X
3. 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?				X
4. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

**DISCUSSION:**

**M.1.-2. No Impact.** The project site is private property that is not in an open space contract, nor does it contain an open space easement. Therefore, with respect to open space and potential community recreation areas, the proposed project would have **No Impact**.

**M.3.-4. No Impact.** The proposed project involves only grading and would not incrementally add users of parks and recreation facilities in the Chico area. The project does not involve a recreational facility or the expansion of a recreation facility. The proposed project would result in **No Impact**.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>N. Population/ Housing</b>				
Will the project or its related activities:				
1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

**DISCUSSION:**

**N.1 – N.3. No Impact.** The proposed grading project will prepare the site for future commercial development of a personal storage facility. However, it will not induce substantial population growth in the area or displace substantial numbers of people. The project impacts to population and housing would be have **No Impact**.

**MITIGATION:** None Required.



<b>O. Public Services</b>		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Will the project or its related activities have an effect upon or result in a need for altered governmental services in any of the following areas:					
1. Fire protection?					X
2. Police protection?					X
3. Schools?					X
4. Parks and recreation facilities? (See Section J Open Space/Recreation)					X
5. Other government services?					X

**DISCUSSION:**

**O.1.-O.5. No Impact.** Currently, the area is served with necessary public services and the proposed grading project would not substantially increase demand for services in the area. Therefore, there would be **No Impacts** to police, fire, schools, parks, and other public services.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>P. Transportation/Circulation</b>				
Will the project or its related activities:				
1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
5. Result in inadequate emergency access?			X	
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

#### **DISCUSSION:**

**P.1.-P.2. Less Than Significant.** Future development of the site with a personal storage facility is anticipated to result in only minor and intermittent increases in traffic volumes to the project site and would not conflict with an applicable congestion management plan, including level of service standards and travel demand measures. Increased vehicle traffic to the site for the proposed grading project is anticipated to last only two to four weeks' time and will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, nor will it conflict with an applicable congestion management program or adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or the safety of such facilities. This impact would be considered **Less Than Significant**.

**P.3. No Impact.** The project site is located in Aircraft Overflight Zone B1 as identified by the Butte County Airport Land Use Plan (ALUCP) (2017). The basic function of the plan is to promote compatibility between the airports in Butte County and the land uses surrounding them. Future development at the project site would be required to satisfy intensity limit criteria as identified by the ALUCP. The proposed grading project would not result in changes to air traffic patterns. There will be **No Impact**.

**P.4 – P.5. Less Than Significant.** Increased vehicle traffic to the site for the proposed grading project and future development of a personal storage facility is anticipated to last several weeks and will not substantially increase hazards due to a design feature or create incompatible uses. The grading project will not result in inadequate emergency vehicle access. Access to personal storage facility site would be provided by a private access road from Thorntree Drive, reducing impacts to Thorntree Drive. This impact would be considered **Less Than Significant**.

**P.6. No Impact.** The proposed grading project will not conflict with any adopted policies, plans, or programs related to public transportation. There will be **No Impact**.

**Mitigation:** None Required

<b>Q. Tribal Cultural Resources</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
1. 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), or			X	
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			X	

## **DISCUSSION:**

**Q.1, a-b. Less than Significant with Mitigation Incorporated:** The site is classified as a medium archaeological sensitivity area on the Prehistoric Archaeological Sensitivity Areas map in the Chico General Plan. In June 2019, the Northeast Center for California Historical Resources Information System conducted a project review for the project site (**Appendix C**). The review examined the official maps and records for archaeological sites and surveys in Butte County. Review results revealed one previous survey for cultural resources, completed in 1980. No further prehistoric or historic resource sites have been recorded in the project area.

City Staff requested consultation with the Mechoopda Tribe on 3/18/2019 and received a response from Kyle McHenry, Tribal Historic Preservation office on 3/25/2019 (**Appendix D**). No substantial evidence has been provided to determine that the project site is listed or eligible for listing in the California Register of historic resources or is or contains a resource to be significant to a California Native American Tribe. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource. In the event that resources are inadvertently discovered, Implementation of Mitigation Q.1 and Mitigation Q.2 would reduce impacts to **Less than Significant with Mitigation Incorporated**.

## **MITIGATION:**

**MITIGATION Q.1. (Tribal Monitor):** The applicant's contractor shall, at no fiscal cost to the applicant or applicant's contractor, provide for the presence of a Mechoopda Indian Tribal Monitor during all earth moving and ground disturbing activities. The applicant shall provide the contractor's contact information for the purpose of providing direct information to the Tribal Monitor regarding project scheduling and safety protocol, as well as project scope, location of construction areas, and nature of work to be performed. The determination to be present for any, some, or all construction activities shall be at the discretion of the Tribal Monitor.

**MITIGATION Q.2. (Inadvertent Discovery):** If during ground disturbing activities, any potentially prehistoric, protohistoric, and/or historic cultural resources are encountered, the supervising contractor shall cease all work within 10 feet of the find (100 feet for human remains) and notify the City. A

professional archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology and being familiar with the archaeological record of Butte County, shall be retained to evaluate the significance of the find. City staff shall notify all local tribes on the consultation list maintained by the State of California Native American Heritage Commission, to provide local tribes the opportunity to monitor evaluation of the site. If human remains are uncovered, the project team shall notify the Butte County Coroner pursuant to Section 7050.5 of California's Health and Safety Code. Site work shall not resume until the archaeologist conducts sufficient research, testing and analysis of the archaeological evidence to make a determination that the resource is either not cultural in origin or not potentially significant. If a potentially significant resource is encountered, the archaeologist shall prepare a mitigation plan for review and approval by the City, including recommendations for total data recovery, Tribal monitoring, disposition protocol, or avoidance, if applicable. All measures determined by the City to be appropriate shall be implemented pursuant to the terms of the archaeologist's report. The preceding requirement shall be incorporated into construction contracts and documents to ensure contractor knowledge and responsibility for the proper implementation.

If paleontological resources are encountered during Project subsurface construction, all ground-disturbing activities within 10 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery.

*MITIGATION MONITORING Q.1 and Q.2:* Planning staff will verify that the above wording is included on construction plans. Should tribal cultural resources be encountered, the supervising contractor shall be responsible for reporting any such findings to Planning staff, and contacting a professional archaeologist, in consultation with Planning staff, to evaluate the find.

<b>R. Utilities</b>				
Will the project or its related activities have an effect upon or result in a need for new systems or substantial alterations to the following utilities:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Water for domestic use and fire protection?				X
2. Natural gas, electricity, telephone, or other communications?				X
3. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
4. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
5. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
6. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
7. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
8. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
9. Comply with federal, state, and local statutes and regulations related to solid waste?			X	

## **DISCUSSION:**

**Q.1.-Q.7. No Impact.** The proposed grading project will prepare the site for future development of a personal storage facility. All necessary utilities (water, storm drain, sewer, gas, phone or other communications, and electric facilities) are available near the site and extending them throughout the site will be required with future development. The project would not exceed the capacity of wastewater treatment facilities. Utilities are available and adequate to serve the proposed development. The project would have **No Impact** regarding the provision of utilities and wastewater services.

**Q.8.-Q.9.** Available capacity exists at the Neal Road landfill to accommodate waste generated by the project. Recycling containers and service will be provided for the project as required by state law. This impact would be **Less Than Significant**.

**MITIGATION:** None Required.

## V. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
A. The project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.			X	
B. The project has possible environmental effects which are individually limited but cumulatively considerable. (Cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past, current and probable future projects).			X	
C. The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.				X

### **DISCUSSION:**

**V.A - V.C:** The project does not have the potential to significantly degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plants or animals; or eliminate important examples of the major periods of California history or prehistory. Based on the preceding environmental analysis, the application of existing regulations and incorporation of identified mitigation measures will ensure that all potentially significant environmental impacts associated with the project, including those related to air quality, biological resources, and cultural resources would be minimized or avoided, and the project will not result in direct or indirect adverse effects on human beings or the environment, nor result in significant cumulative impacts. Therefore, with the incorporation of the identified mitigation measures, the project will result in a **Less Than Significant** impact.

## VI. REFERENCES

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Thorntree Grading and Mini Storage - Butte County, Summer

Thorntree Grading and Mini Storage  
Butte County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	68.00	1000sqft	7.00	68,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	71
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Site is 7 acres
- Construction Phase - vacant site no demo
- Off-road Equipment -
- Vehicle Trips - per ITE manual

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.56	7.00
tblVehicleTrips	WD_TR	1.68	1.65

Thorntree Grading and Mini Storage - Butte County, Summer

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2019	4.4710	45.6708	23.2548	0.0399	18.2379	2.3918	20.6297	9.9762	2.2005	12.1767	0.0000	3,956.360 <sub>3</sub>	3,956.360 <sub>3</sub>	1.2024	0.0000	3,986.419 <sub>9</sub>
2020	79.0777	20.9696	18.8392	0.0342	0.3839	1.1299	1.5137	0.1042	1.0625	1.1668	0.0000	3,301.268 <sub>5</sub>	3,301.268 <sub>5</sub>	0.7216	0.0000	3,318.094 <sub>7</sub>
Maximum	79.0777	45.6708	23.2548	0.0399	18.2379	2.3918	20.6297	9.9762	2.2005	12.1767	0.0000	3,956.360 <sub>3</sub>	3,956.360 <sub>3</sub>	1.2024	0.0000	3,986.419 <sub>9</sub>

#### Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2019	4.4710	45.6708	23.2548	0.0399	18.2379	2.3918	20.6297	9.9762	2.2005	12.1767	0.0000	3,956.360 <sub>3</sub>	3,956.360 <sub>3</sub>	1.2024	0.0000	3,986.419 <sub>9</sub>
2020	79.0777	20.9696	18.8392	0.0342	0.3839	1.1299	1.5137	0.1042	1.0625	1.1668	0.0000	3,301.268 <sub>5</sub>	3,301.268 <sub>5</sub>	0.7216	0.0000	3,318.094 <sub>7</sub>
Maximum	79.0777	45.6708	23.2548	0.0399	18.2379	2.3918	20.6297	9.9762	2.2005	12.1767	0.0000	3,956.360 <sub>3</sub>	3,956.360 <sub>3</sub>	1.2024	0.0000	3,986.419 <sub>9</sub>

Thorntree Grading and Mini Storage - Butte County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Thorntree Grading and Mini Storage - Butte County, Summer

## 2.2 Overall Operational

### Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288
Mobile	0.4150	2.5402	4.5939	0.0137	0.8754	0.0144	0.8898	0.2349	0.0136	0.2485		1,391,272.3	1,391,272.3	0.1020		1,393,822.0
<b>Total</b>	<b>2.3390</b>	<b>2.8705</b>	<b>4.8782</b>	<b>0.0157</b>	<b>0.8754</b>	<b>0.0396</b>	<b>0.9149</b>	<b>0.2349</b>	<b>0.0388</b>	<b>0.2736</b>		<b>1,787,561.2</b>	<b>1,787,561.2</b>	<b>0.1096</b>	<b>7.2700e-003</b>	<b>1,792,466.7</b>

### Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Energy	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288
Mobile	0.4150	2.5402	4.5939	0.0137	0.8754	0.0144	0.8898	0.2349	0.0136	0.2485		1,391,272.3	1,391,272.3	0.1020		1,393,822.0
<b>Total</b>	<b>2.3390</b>	<b>2.8705</b>	<b>4.8782</b>	<b>0.0157</b>	<b>0.8754</b>	<b>0.0396</b>	<b>0.9149</b>	<b>0.2349</b>	<b>0.0388</b>	<b>0.2736</b>		<b>1,787,561.2</b>	<b>1,787,561.2</b>	<b>0.1096</b>	<b>7.2700e-003</b>	<b>1,792,466.7</b>

## Thorntree Grading and Mini Storage - Butte County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3.0 Construction Detail

## Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/23/2019	9/5/2019	5	10	
2	Grading	Grading	9/6/2019	10/3/2019	5	20	
3	Building Construction	Building Construction	10/4/2019	8/20/2020	5	230	
4	Paving	Paving	8/21/2020	9/17/2020	5	20	
5	Architectural Coating	Architectural Coating	9/18/2020	10/15/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 102,000; Non-Residential Outdoor: 34,000; Striped Parking Area: 0  
(Architectural Coating – sqft)

OffRoad Equipment

Thorntree Grading and Mini Storage - Butte County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	29.00	11.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	12.54	10.52	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Thorntree Grading and Mini Storage - Butte County, Summer

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991		3,766.4529	3,766.4529	1.1917		3,796.2445
Total	4.3350	45.5727	22.0630	0.0380	18.0663	2.3904	20.4566	9.9307	2.1991	12.1298		3,766.4529	3,766.4529	1.1917		3,796.2445

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Worker	0.1360	0.0981	1.1918	1.9200e-003	0.1717	1.4400e-003	0.1731	0.0455	1.3300e-003	0.0469		189.9074	189.9074	0.0107		190.1754
Total	0.1360	0.0981	1.1918	1.9200e-003	0.1717	1.4400e-003	0.1731	0.0455	1.3300e-003	0.0469		189.9074	189.9074	0.0107		190.1754

## Thorntree Grading and Mini Storage - Butte County, Summer

**3.2 Site Preparation - 2019****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630	0.0380		2.3904	2.3904		2.1991	2.1991	0.0000	3,766,452 <sup>9</sup>	3,766,452 <sup>9</sup>	1.1917		3,796,244 <sup>5</sup>
<b>Total</b>	<b>4.3350</b>	<b>45.5727</b>	<b>22.0630</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.3904</b>	<b>20.4566</b>	<b>9.9307</b>	<b>2.1991</b>	<b>12.1298</b>	<b>0.0000</b>	<b>3,766,452<sup>9</sup></b>	<b>3,766,452<sup>9</sup></b>	<b>1.1917</b>		<b>3,796,244<sup>5</sup></b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1360	0.0981	1.1918	1.9200e-003	0.1717	1.4400e-003	0.1731	0.0455	1.3300e-003	0.0469		189.9074	189.9074	0.0107		190.1754
<b>Total</b>	<b>0.1360</b>	<b>0.0981</b>	<b>1.1918</b>	<b>1.9200e-003</b>	<b>0.1717</b>	<b>1.4400e-003</b>	<b>0.1731</b>	<b>0.0455</b>	<b>1.3300e-003</b>	<b>0.0469</b>		<b>189.9074</b>	<b>189.9074</b>	<b>0.0107</b>		<b>190.1754</b>



Thorntree Grading and Mini Storage - Butte County, Summer

**3.3 Grading - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.806 <sup>8</sup>	2,936.806 <sup>8</sup>	0.9292		2,960.036 <sup>1</sup>
<b>Total</b>	<b>2.5805</b>	<b>28.3480</b>	<b>16.2934</b>	<b>0.0297</b>	<b>6.5523</b>	<b>1.3974</b>	<b>7.9497</b>	<b>3.3675</b>	<b>1.2856</b>	<b>4.6531</b>		<b>2,936.806<sup>8</sup></b>	<b>2,936.806<sup>8</sup></b>	<b>0.9292</b>		<b>2,960.036<sup>1</sup></b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1133	0.0817	0.9932	1.6000e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		158.2562	158.2562	8.9300e-003		158.4795
<b>Total</b>	<b>0.1133</b>	<b>0.0817</b>	<b>0.9932</b>	<b>1.6000e-003</b>	<b>0.1431</b>	<b>1.2000e-003</b>	<b>0.1443</b>	<b>0.0379</b>	<b>1.1100e-003</b>	<b>0.0391</b>		<b>158.2562</b>	<b>158.2562</b>	<b>8.9300e-003</b>		<b>158.4795</b>

Thorntree Grading and Mini Storage - Butte County, Summer

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936,806 <sup>8</sup>	2,936,806 <sup>8</sup>	0.9292		2,960,036 <sup>1</sup>
Total	2.5805	28.3480	16.2934	0.0297	6.5523	1.3974	7.9497	3.3675	1.2856	4.6531	0.0000	2,936,806 <sup>8</sup>	2,936,806 <sup>8</sup>	0.9292		2,960,036 <sup>1</sup>

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1133	0.0817	0.9932	1.6000e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		158,2562	158,2562	8.9300e-003		158,4795
Total	0.1133	0.0817	0.9932	1.6000e-003	0.1431	1.2000e-003	0.1443	0.0379	1.1100e-003	0.0391		158,2562	158,2562	8.9300e-003		158,4795

Thorntree Grading and Mini Storage - Butte County, Summer

**3.4 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0741	1.8141	0.3778	4.3400e-003	0.1073	0.0163	0.1236	0.0309	0.0156	0.0465		454.3560	454.3560	0.0384		455.3161
Worker	0.2191	0.1580	1.9202	3.0900e-003	0.2766	2.3200e-003	0.2789	0.0734	2.1400e-003	0.0755		305.9619	305.9619	0.0173		306.3937
Total	0.2931	1.9721	2.2979	7.4300e-003	0.3839	0.0186	0.4025	0.1042	0.0177	0.1220		760.3179	760.3179	0.0557		761.7098

Thorntree Grading and Mini Storage - Butte County, Summer

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5
Total	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127	0.0000	2,591.580 2	2,591.580 2	0.6313		2,607.363 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0741	1.8141	0.3778	4.3400e-003	0.1073	0.0163	0.1236	0.0309	0.0156	0.0465		454.3560	454.3560	0.0384		455.3161
Worker	0.2191	0.1580	1.9202	3.0900e-003	0.2766	2.3200e-003	0.2789	0.0734	2.1400e-003	0.0755		305.9619	305.9619	0.0173		306.3937
Total	0.2931	1.9721	2.2979	7.4300e-003	0.3839	0.0186	0.4025	0.1042	0.0177	0.1220		760.3179	760.3179	0.0557		761.7098

Thorntree Grading and Mini Storage - Butte County, Summer

**3.4 Building Construction - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 <sup>1</sup>	2,553.063 <sup>1</sup>	0.6229		2,568.634 <sup>5</sup>
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 <sup>1</sup>	2,553.063 <sup>1</sup>	0.6229		2,568.634 <sup>5</sup>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0585	1.6451	0.3165	4.3100e-003	0.1073	0.0106	0.1179	0.0309	0.0102	0.0411		451.3168	451.3168	0.0355		452.2049
Worker	0.1960	0.1384	1.6741	2.9900e-003	0.2766	2.1900e-003	0.2788	0.0734	2.0200e-003	0.0754		296.8887	296.8887	0.0147		297.2554
Total	0.2544	1.7835	1.9907	7.3000e-003	0.3839	0.0128	0.3967	0.1042	0.0122	0.1164		748.2055	748.2055	0.0502		749.4602

Thorntree Grading and Mini Storage - Butte County, Summer

3.4 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 <sup>1</sup>	2,553.063 <sup>1</sup>	0.6229		2,568.634 <sup>5</sup>
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 <sup>1</sup>	2,553.063 <sup>1</sup>	0.6229		2,568.634 <sup>5</sup>

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0585	1.6451	0.3165	4.3100e-003	0.1073	0.0106	0.1179	0.0309	0.0102	0.0411		451.3168	451.3168	0.0355		452.2049
Worker	0.1960	0.1384	1.6741	2.9900e-003	0.2766	2.1900e-003	0.2788	0.0734	2.0200e-003	0.0754		296.8887	296.8887	0.0147		297.2554
Total	0.2544	1.7835	1.9907	7.3000e-003	0.3839	0.0128	0.3967	0.1042	0.0122	0.1164		748.2055	748.2055	0.0502		749.4602

Thorntree Grading and Mini Storage - Butte County, Summer

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 <sup>4</sup>	2,207.733 <sup>4</sup>	0.7140		2,225.584 <sup>1</sup>
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 <sup>4</sup>	2,207.733 <sup>4</sup>	0.7140		2,225.584 <sup>1</sup>

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Worker	0.1014	0.0716	0.8659	1.5500e-003	0.1431	1.1300e-003	0.1442	0.0379	1.0400e-003	0.0390		153.5631	153.5631	7.5800e-003		153.7528
Total	0.1014	0.0716	0.8659	1.5500e-003	0.1431	1.1300e-003	0.1442	0.0379	1.0400e-003	0.0390		153.5631	153.5631	7.5800e-003		153.7528

## Thorntree Grading and Mini Storage - Butte County, Summer

**3.5 Paving - 2020****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.733 <sup>4</sup>	2,207.733 <sup>4</sup>	0.7140		2,225.584 <sup>1</sup>
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.3566</b>	<b>14.0656</b>	<b>14.6521</b>	<b>0.0228</b>		<b>0.7528</b>	<b>0.7528</b>		<b>0.6926</b>	<b>0.6926</b>	<b>0.0000</b>	<b>2,207.733<sup>4</sup></b>	<b>2,207.733<sup>4</sup></b>	<b>0.7140</b>		<b>2,225.584<sup>1</sup></b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000			0.0000
Worker	0.1014	0.0716	0.8659	1.5500e-003	0.1431	1.1300e-003	0.1442	0.0379	1.0400e-003	0.0390		153.5631	153.5631	7.5800e-003		153.7528
<b>Total</b>	<b>0.1014</b>	<b>0.0716</b>	<b>0.8659</b>	<b>1.5500e-003</b>	<b>0.1431</b>	<b>1.1300e-003</b>	<b>0.1442</b>	<b>0.0379</b>	<b>1.0400e-003</b>	<b>0.0390</b>		<b>153.5631</b>	<b>153.5631</b>	<b>7.5800e-003</b>		<b>153.7528</b>



Thorntree Grading and Mini Storage - Butte County, Summer

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Archit. Coating	78.7950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	79.0372	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0286	0.3464	6.2000e-004	0.0572	4.5000e-004	0.0577	0.0152	4.2000e-004	0.0156		61.4253	61.4253	3.0300e-003		61.5011
Total	0.0406	0.0286	0.3464	6.2000e-004	0.0572	4.5000e-004	0.0577	0.0152	4.2000e-004	0.0156		61.4253	61.4253	3.0300e-003		61.5011

Thorntree Grading and Mini Storage - Butte County, Summer

3.6 Architectural Coating - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Archit. Coating	78.7950					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	79.0372	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0406	0.0286	0.3464	6.2000e-004	0.0572	4.5000e-004	0.0577	0.0152	4.2000e-004	0.0156		61.4253	61.4253	3.0300e-003		61.5011
Total	0.0406	0.0286	0.3464	6.2000e-004	0.0572	4.5000e-004	0.0577	0.0152	4.2000e-004	0.0156		61.4253	61.4253	3.0300e-003		61.5011

4.0 Operational Detail - Mobile

Thorntree Grading and Mini Storage - Butte County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Mitigated	0.4150	2.5402	4.5939	0.0137	0.8754	0.0144	0.8898	0.2349	0.0136	0.2485	1,391,272	1,391,272	1,391,272	0.1020		1,393,822
											3	3	3			0
Unmitigated	0.4150	2.5402	4.5939	0.0137	0.8754	0.0144	0.8898	0.2349	0.0136	0.2485	1,391,272	1,391,272	1,391,272	0.1020		1,393,822
											3	3	3			0

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated		Mitigated	
Land Use	Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Unrefrigerated Warehouse-No Rail	112.20	114.24	114.24	402,849		402,849	
Total	112.20	114.24	114.24	402,849		402,849	

4.3 Trip Type Information

	Miles	Trip %				Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted
Unrefrigerated Warehouse-No Rail	10.52	10.52	10.52	59.00	0.00	41.00	92	5
								3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.514547	0.034230	0.180067	0.120126	0.034848	0.006594	0.018358	0.079646	0.001635	0.001462	0.005861	0.001268	0.001358

Thorntree Grading and Mini Storage - Butte County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288
NaturalGas Unmitigated	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288

Thorntree Grading and Mini Storage - Butte County, Summer

5.2 Energy by Land Use - Natural Gas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	KBtu/yr	lb/day															
Unrefrigerated Warehouse-No Rail	3368.33	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288
Total		0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	KBtu/yr	lb/day															
Unrefrigerated Warehouse-No Rail	3368.33	0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288
Total		0.0363	0.3302	0.2774	1.9800e-003		0.0251	0.0251		0.0251	0.0251		396.2740	396.2740	7.6000e-003	7.2700e-003	398.6288

6.0 Area Detail

6.1 Mitigation Measures Area

## Thorntree Grading and Mini Storage - Butte County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day															
Mitigated	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Unmitigated	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159

## 6.2 Area by SubCategory

## Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day															
Architectural Coating	0.4318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159
Total	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149	4.0000e-005		0.0159

Thorntree Grading and Mini Storage - Butte County, Summer

## 6.2 Area by SubCategory

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4552					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.5000e-004	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149			0.0159
Total	1.8876	6.0000e-005	6.9700e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0149	0.0149			0.0159

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## 10.0 Stationary Equipment

### Fire Pumps and Emergency Generators

Thorntree Grading and Mini Storage - Butte County, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **Biological Resources Letter Report and Preliminary Wetlands Assessment for the Thorntree Drive Grading Project APN 016-200-122**

NorthStar biologists, Matt Rogers, Andrew Huneycutt and Jake Sivertson conducted a biological resources evaluation survey at the Thorntree Drive Grading project site (**Attachment A-Location Map**). The survey was conducted on June 7, 2018 during the morning from approximately 9:00 a.m. to 12:30 p.m., temperatures were in the low-70s with very little cloud cover and light winds. The survey began at the northern boundary of the parcel and traveled south covering the entirety of the project area. The purpose of the survey was to document existing site conditions and evaluate the project area for habitats that may be suitable for special-status species.

### **PROJECT DESCRIPTION**

The proposed project involves grading and leveling an approximate 6.9-acre area. The purpose of the grading is to facilitate the future development of the site, with a land use allowed under the existing zoning classification and consistent with the general plan land use designations. The grading will involve a cut volume of approximately 1017 cubic yards with a fill volume of approximately 8550 cubic yards of material across the site. The types of equipment utilized for the project may include but are not limited to a grader, dump haul trucks, backhoe, excavator, and work trucks.

An upland flow conveyance ditch will be constructed along the eastern, southern, and a portion of the western boundaries of the property. The conveyance ditch will be approximately 10 feet wide and contain a berm approximately 0.5 feet tall and one foot wide. Additionally, a bio-retention basin will be constructed on the western side of the parcel. The bio-retention basin will be approximately 10 feet wide and the base and approximately two feet deep. The bottom of the bio-retention basin will contain a subsurface drainage/storage layer consisting of gravel overlain with a layer of soil. Native grasses will be planted along the slope of the basin to prevent erosion. The basin will also include an outfall weir near its southern intersection with the upland flow ditch.

The project will maintain a distance of 15 feet away from the toe of the existing Sycamore Creek Federal setback levee. With the addition of the 10-foot width for the upland flow conveyance ditch the distance the grading will maintain from the setback levee is 25 feet. The project is approximately 110 feet away from the top of the bank of Sycamore Creek and approximately 165 feet away from the centerline of Sycamore Creek.

### **EXISTING CONDITIONS**

The proposed project site is located in the northern part of the City of Chico located just north of Sycamore Creek. The project is located in Section 11, Township 22N, Range 1E of the Richardson Springs U.S. Geologic Survey (USGS) 7.5-minute quadrangle. More specifically, the project is located within APN 016-200-122 on Thorntree Drive approximately 700 feet east of Cohasset Road within the City of Chico city limits. The topography of the project area is gentle and flat, with an elevation of approximately 198 feet above mean sea level. The most prominent man-made feature within the BSA is the Sycamore Creek Federal setback levee present on the north bank of Sycamore Creek and south of the proposed project area.

The project site area is characterized as vacant undeveloped land in the northeastern portion of Chico along Thorntree Drive. Vegetation found on-site is typical of annual grasslands within the northern Central Valley. The habitat present is comprised primarily of non-native and invasive annual grass species such as wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), medusa head (*Elymus caput-medusae*), foxtail barley (*Hordeum murinum*), and Italian rye (*Festuca perennis*). Non-native forbs present include yellow-star thistle (*Centaurea solstitialis*), bristly ox-tongue (*Helminthotheca echioides*), chickory (*Cichorium intybus*), Klamath weed (*Hypericum*

*perforatum*), winter vetch (*Vicia villosa*), hawksbit (*Leontodon saxatilis*), and German chamomile (*Matricaria chamomile*). Native plant species present include bicolored lupine (*Lupinus bicolor*), Indian milkweed (*Asclepias eriocarpa*), and harvest brodiaea (*Brodiaea elegans*). Surrounding uses include commercial and industrial uses to the north and open space to the east, west, and south (**Attachment B – Site Photos**).

No trees or shrubs are present within the project area. A valley oak (*Quercus lobata*) and a black locust (*Robinia pseudoacacia*) are present on the adjacent parcel to the west near Thorntree Drive. Trees and shrubs are found south of the Sycamore Creek Federal setback levee along the banks of the creek. Species present include Fremont cottonwood (*Populus fremontii*), arroyo willow (*Salix lasiolepis*), and buckbrush (*Ceanothus cuneatus*).

There are no aquatic features within the project area that would be considered jurisdictional under the current U.S. Army Corps of Engineers (USACE) definition for Waters of the United States (WOUS). Additionally, there are no aquatic features within the project area that would be considered special aquatic sites such as vernal pools, springs or wetlands. Two elevational features are found within the project area that collect and direct on-site sheet flow only; prior to conveying off-site. These elevational features do not exhibit an ordinary high water mark, and do not contain bed, bank, and/or scour morphology. Additionally, the plant communities within and surrounding these features are not indicative of wetlands as the species present are not hydrophytic. Additionally, the soils found within these elevational features are loamy in texture indicating they are relatively well draining. Wetland and vernal pool soils in the area tend to have larger portions of clay which allow the soils to hold water or perch it. Therefore, the elevational features do not contain any of the three diagnostic features of a wetland (wetland hydrology, hydric soils, hydrophytic vegetation) nor do they contain the scour morphology or hydrogeomorphic characteristics to classify them as WOUS.

Sycamore Creek is present within the BSA but is found outside of the project area, as the grading will maintain a minimum distance from the Federal Setback levee. Sycamore creek would likely be considered jurisdictional by the USACE as an Other Water of the United States designated as a non-relatively permanent water. The feature is ephemeral in nature as water is only present during and immediately following the rainy season (November-March). The project will maintain a large set back from Sycamore Creek due to the Federal Setback levee and its position in relation to the project area and the creek.

The full list of the species observed during the survey can be found in **Attachment C**.

## **REGULATORY FRAMEWORK**

The following laws and regulations were identified as possible constraints to project activities within the survey area based on the occurrence and/or potential for occurrence of sensitive natural resources.

### **Federal Endangered Species Act**

The United States Congress passed the federal Endangered Species Act (ESA) in 1973 to protect those 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 “endangered”, “threatened”, “candidate”, or “proposed”. An endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. “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.

Section 9 of the ESA prohibits the “take” a listed animal without a permit. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting or any attempt to engage in any such conduct. “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.” Under Section 7 of the ESA, federal agencies are required to consult with the USFWS or National Marine Fisheries Service (NMFS) if their actions, including permit approvals or funding, could adversely affect an endangered plant or wildlife species or its habitat, or could adversely affect designated critical habitat. Through consultation and the issuance of a biological opinion, USFWS or NMFS can issue an incidental take statement allowing take of the species, provided the action will not jeopardize the continued existence of any federally listed species or result in the destruction or adverse modification of habitats of those species. Section 10 of the ESA provides for issuance of incidental take permits to private parties without a federal nexus provided a Habitat Conservation Plan (HCP) is developed.

#### **Migratory Bird Treaty Act**

The federal Migratory Bird Treaty Act (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).

#### **California Endangered Species Act**

The California Endangered Species Act enacted in 1984, is similar to the federal 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 Sections 3503 and 3503.5**

The California Fish and Game Code (CFGC) (§3503) 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.” “Take” includes the disturbance of an active nest resulting in the abandonment or loss of young.

Section §3503.5 of the CFGC states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation pursuant thereto.”

#### **California Fish and Game Code Section 1900-1913**

The California Native Plant Protection Act (CFGF §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 ditch, building site, or road, or other right of way.” Very few of the plants constituting List 3 and List 4 meet the definitions of §1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code,

and few, if any, are eligible for state listing. Therefore, List 3 and List 4 plant species are not required to be considered in the preparation of environmental documents relating to CEQA unless they are considered locally or regionally significant.

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 (CNPS 2001). Potential impacts to populations of CNPS-listed plants receive consideration under CEQA review. The CNPS listings categorize plants as follows:

- List 1A: Plants presumed extinct in California;
- List 1B: Plants rare, threatened, or endangered in California or elsewhere;
- List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- List 3: Plants about which we need more information; and
- List 4: Plants of limited distribution.

#### **Public Resources Code CEQA Guidelines Section 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 a lead 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.

#### **METHODS**

Prior to conducting the onsite survey, existing databases, topographic maps, and aerial photos of the Biological Survey Area (BSA) consisting of the site plus a surrounding 200-foot buffer were reviewed and areas of potential habitat noted. After conducting the survey, agency special-status species lists were reviewed and edited taking into account existing conditions observed within the BSA.

NorthStar obtained lists of special-status species that potentially occur in the vicinity of the BSA from the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation, the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), and the California Native Plant Society's (CNPS) Online Rare and Endangered Plant Inventory v8-02. The lists of special-status species identified as potentially occurring are found in **Attachment D**.

NorthStar biologists conducted a biological survey of the project site and surrounding habitat to examine the site for potentially sensitive biological resources. The survey methodology involved traversing a meandering transect through the project area and surrounding habitat. The survey was general in nature and was conducted to determine the presence of special-status species and habitats within the BSA and to determine if these resources would be impacted by the proposed project. Species encountered during the survey were noted.

Following the field survey, the "potential for occurrence" was determined based on the quality and types of habitats observed at the site. For plants, the potential for occurrence is considered during the appropriate

flowering period. For birds and bats, the potential for occurrence is considered during the appropriate timeframes when these species breed, forage, roost, over-winter, or stop-over in the BSA during migration. Any bird or bat species could flyover the BSA, but this is not considered a potential for occurrence. The categories for the potential for occurrence include:

- **None:** The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficient surveys, the lack of suitable habitat (including soil, vegetation, connectivity, etc.), and/or the BSA is well outside of the known distribution of the species.
- **Low:** Potential habitat in the BSA is sub-marginal and the species is not known to occur in the vicinity of the BSA. Protocol-level surveys are not recommended.
- **Moderate:** Suitable habitat is present in the BSA and the species is known to occur in the vicinity of the BSA.
- **High:** 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.
- **Known:** The species or natural community was detected in the BSA or a recent reliable record exists for the BSA.

## RESULTS

A list of the special-status species identified by resources agencies and their potential for occurrence within the project area can be found in **Attachment E**. The following narrative focuses on the species identified in agency lists and their potential to occur within the project area. After an examination of the habitat present on-site, there are no federally listed species with potential to occur within the project area or the surroundings. The only special-status species with potential to occur on-site are birds protected by the MBTA.

### Plants

There were two federally listed plant species found on the official USFWS list Butte County meadowfoam (*Limnanthes floccosa* ssp. *californica*) and slender Orcutt grass (*Orcuttia tenuis*). Two additional federally listed species were identified on the CDFW and CNPS agency lists including Greene's tuctoria (*Tuctoria greenei*), and Hoover's spurge (*Euphorbia hooveri*). All four of these species are associated with vernal pool habitats in California.

There are no vernal pools or wetlands present within the project area completely eliminating the potential for those federally listed species to occur. Many of the other special-status species listed in agency lists are found in vernal pools, wetlands, and mesic habitats which are not present within the BSA.

The BSA is heavily invaded by non-native and invasive grass species, much of the BSA is covered in slender oat and medusa head eliminating the potential habitat for the special-status species identified in the agency lists. Non-native and invasive grasses are extremely adept at utilizing moisture and nutrients in the upper soil layers, limiting availability for more deeply rooted native species. Additionally, non-native and invasive grasses produce a layer of thatch that covers the ground limiting germination for special-status species. Due to the disturbed nature of the grassland present within the BSA no special-status plant species have the potential to occur on-site.

### Invertebrates

Four federally listed invertebrates were found on the official USFWS list including valley elderberry longhorn beetle (VELB, *Desmocerus californicus dimorphus*), conservancy fairy shrimp (*Branchinecta conservatio*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardii*).

The VELB is found exclusively in blue elderberry (*Sambucus nigra* spp. *caerulea*) shrubs in California's Central Valley where the species utilizes the shrubs for all life stages. Females will lay eggs on the bark of the shrub where they

hatch and the larvae will bore into a stem where it will live for one to two years feeding on the pith. After developing, an adult beetle will exit the stem and emerge to seek a mate. The adults are not particularly strong fliers and do not appear to disperse very far. The beetle will utilize shrubs with stems at least one inch in diameter. Typically, blue elderberry shrubs are found along riparian corridors at lower elevations. A majority of the valley elderberry longhorn beetle occurrences in the northern Central Valley are found along the main stem of the Sacramento River. At a local level, much of the variation in VELB occupancy of elderberry results from variables including elderberry condition, elderberry density, water availability, and the health of the riparian habitat. Research indicates that healthy riparian systems with dense elderberry clumps are the primary habitat of the beetle.

No elderberry shrubs are present within the BSA or within the vicinity of the proposed project, completely eliminating the potential for the species to occur.

Conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp are species that rely on vernal pool landscapes in northern California. They require ephemeral water to complete their life cycles. There are no vernal pools or wetland habitats present within the project area completely eliminating the potential for these species to occur.

### **Fish**

The only federally listed fish species found on the official USFWS list is delta smelt (*Hypomesus transpacificus*). The CDFW list contains two additional species, Central Valley Spring Run Chinook Salmon (*Oncorhynchus tshawytscha*), and Central Valley steelhead (*Oncorhynchus mykiss*). Delta smelt are confined to the Delta region of California in estuary habitats. Spring Run Chinook Salmon and Central valley steelhead are found on the Sacramento River and its tributaries, favoring cold and clean water for holding and spawning.

The project area does not contain any riverine habitat that would support the four federally listed species found on the agency lists. There is no potential for these species to be affected by the proposed project.

### **Reptiles and Amphibians**

Two federally listed species were found on the official USFWS list including giant garter snake (*Thamnophis gigas*) and California red-legged frog (*Rana draytonii*).

The giant garter snake is an endemic species found only within California's Central Valley. The species inhabits seasonal and permanent marsh and wetland habitat, low gradient streams, sloughs, small lakes, and adjacent uplands but will also utilize agricultural wetlands such as irrigation and drainage canals. Due to direct loss of habitat the species is especially reliant on rice in the Central Valley. The nearest known occurrence of giant garter snake in Butte County is approximately 7.4 miles to the southwest of the project site at the Chico Water Pollution Control Plant. Additionally, there is no aquatic habitat to support the species within the project area. Therefore, there is no potential for the species to occur within the project area.

The California red-legged frog is found in deep slow-moving water with dense stands of overhanging willow, cattail, or bulrush. California red-legged frogs have been extirpated from most historical localities including the Central Valley. There is no potential for the species to occur within the project area as they are presumed extinct from the entire Central Valley.

Foothill yellow-legged frog (*Rana boylei*) is found in many environs throughout California from the coast range to the transverse mountains in Los Angeles and throughout northern California west of the Cascade crest. It is found in rocky streams in a variety of habitats including riparian, conifer dominated, chaparral, wet meadow, etc. The species generally is found in partially shaded, shallow stream riffles typically in low to moderate gradient streams,



especially for breeding and egg laying. The tadpoles require at least three to four months to develop, therefore, the species is rarely found away from permanent water sources. American bullfrog (*Lithobates catesbiana*) is a voracious predator of foothill yellow-legged frogs of all life stages and is one of the drivers of the species decline in California. There are no permanent sources of water within the BSA that could support foothill yellow-legged frog. Sycamore Creek is ephemeral and only contains water during the winter and early spring. Additionally, the nearest known occurrences are over five miles from the BSA in the foothills near Richardson Springs where permanent water is present. The record found near the confluence of Big Chico Creek and the Sacramento River is presumed extinct as they have not been detected at the location for over 50 years. A prominent expert on the species made that determination.

Northwestern pond turtle is found in a variety of aquatic habitats within California and is the only abundant native turtle in the state. They are associated with permanent or nearly permanent water in a wide variety of habitats and elevations ranging from sea-level to 4,500 feet. The species requires basking sites such as rocks, submerged logs, mud banks, etc. Nests are typically constructed along banks of permanent water in soils at least four inches deep. There is no permanent or nearly permanent water within the BSA, water in Sycamore Creek is only ephemeral present during the rainy season.

Western spadefoot (*Spea hammondi*) is a relatively small, smooth skinned toad, with white and orange tipped tubercles on its back, and distinctive vertical pupils. It is named for the sharp-edged “spades” on its hind feet utilized for digging. The species occupies grassland, sage scrub, and woodland habitats from Tehama County to Baja. The species is dependent on ephemeral pools or slow-moving water courses that are predator free for breeding. Larval development can be rapid (approximately 30 days) if vernal pools are drying. There is no ephemeral water found within the project area. Sycamore Creek may provide suitable habitat but the area is heavily invaded with non-native predators including bullfrog, thus limiting the potential for the species to utilize this area for breeding.

### **Birds**

The only federally listed bird species found on the agency lists was the federally endangered least Bell’s vireo (*Vireo bellii pusillus*). The least Bell’s vireo is found in willow scrub habitats within riparian habitats in California. The species has not been detected in the northern Central Valley for a very long time, the most recent record from the area is an occurrence from the Chico area in the early 1900’s. The most recent record from the Central Valley was from the Yolo Bypass in 2011 over 80 miles from the project area. There is no willow scrub or riparian habitat found within the project area, therefore, there is no potential for the species to occur.

Many of the other species listed require trees or shrubs for nesting and none are present within the project area. The cottonwoods found adjacent to Sycamore Creek could provide suitable habitat for raptors such as Swainson’s hawk, however, no large stick nests were observed during the biological survey of the site.

Migratory birds are protected in varying degrees under California Fish and Game code, Section 3503.5, and the Migratory Bird Treaty Act (MBTA). The habitat within the project area could provide suitable nesting and foraging habitat for several species protected by the MBTA including western meadowlark (*Sturnella neglecta*), lark sparrow (*Chondestes grammacus*), savannah sparrow (*Passerculus sandwichensis*), Lincoln’s sparrow (*Melospiza lincolnii*) and northern harrier (*Circus hudsonius*). Additionally, species protected by the MBTA were observed during the biological survey of the project area. However, there was no evidence they were utilizing the project area for nesting.

### **Mammals**

The special-status mammals found in Attachment E primarily consist of bat species such as hoary bat, pallid bat, silver-haired bat, western mastiff bat, and Yuma myotis. There is no potential roosting habitat for any of these species as there are no trees or rocky cliffs found within the BSA. There is potential foraging habitat above the grassland within the BSA, however, it is of lower quality than the greater surrounding areas such as lower and upper Bidwell Park where a variety of habitats are present providing a more robust prey base.

### **CONCLUSIONS AND RECOMMENDATIONS**

The following measures would ensure impacts to special-status species would be avoided or minimized.

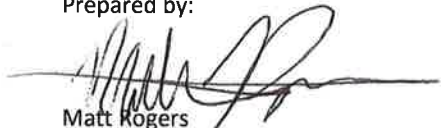
### **Migratory Birds and Raptors**

Vegetation removal or ground disturbance in areas where nests of birds protected by the MBTA (16 USC §703) potentially occur, should be conducted between September 1 and February 28 (i.e. the non-breeding season). If vegetation removal or ground disturbance occurs during the breeding season (i.e. March 1 to August 31) then it is recommended that a qualified biologist perform the following:

- Conduct a survey for raptors and all other birds protected by the MBTA and map all nests located within 250 feet of construction areas. The survey should be conducted no more than two weeks prior to the start of project activities.
- If an active nest is located, develop buffer zones around active nests that are sufficient enough in size to ensure impacts to nesting species are avoided. Project activities shall be prohibited within the buffer zones until the young have fledged or the nest fails, as determined by a qualified biologist.

Please feel free to contact NorthStar with any questions at (530) 893-1600 or via email at [mrogers@northstareng.com](mailto:mrogers@northstareng.com)

Prepared by:

  
Matt Rogers  
Associate Biologist

### **Attachments**

*Attachment A-Site Photos*  
*Attachment B-Map of Survey Area*  
*Attachment C- Observed Species List*  
*Attachment D- USFWS, CDFW, and CNPS Special-Status Species Lists*  
*Attachment E - Special-status species and sensitive natural communities*



**ATTACHMENT A:**

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SITE PHOTOS



PHOTO 1 -

APN 016-200-122.

Proposed project parcel found on the left side of the photo.

- Standing along the western boundary of the property approximately halfway into the parcel facing southeast looking towards the Sycamore Creek levee.

7 June 2018



PHOTO 2 -

APN 012-200-122.

Central portion of the proposed project area with the eastern boundary off in the background.

- Standing in the central portion of the project area looking northeast.

7 June 2018



PHOTO 3 -

Sycamore Creek  
levee and APN 012-  
200-122.

The Sycamore Creek  
levee and the  
surrounding land.  
The proposed project  
area is found on the  
right side of the  
photo.

- Standing on the  
Sycamore Creek  
levee looking  
southwest.

7 June 2018



PHOTO 4 -

APN 012-200-122.

Eastern boundary of  
the proposed project  
area. Project area  
found on the right  
side of the photo.

- Standing along the  
eastern boundary  
looking southeast  
towards the  
Sycamore Creek  
levee.

7 June 2018





PHOTO 5 -

APN 012-200-122.

Large patch of invasive Klamath weed present within the project area. Non-native and invasive grasses are present in the background of the photo.

- Standing within the property looking generally south towards Sycamore Creek.

7 June 2018



PHOTO 6 -

APN 012-200-122.

Annual grassland habitat within project area consisting of primarily non-native and invasive grasses such as medusa head and slender oat.

- Standing within the property looking west.

7 June 2018





PHOTO 7 -

Sycamore Creek setback levee and Sycamore Creek.

The Sycamore Creek federal setback levee and the habitat surrounding Sycamore Creek.

- Standing on the Sycamore Creek levee looking southeast towards Sycamore Creek.

7 June 2018



PHOTO 8 -

Sycamore Creek.

The main channel of Sycamore Creek with limited riparian vegetation consisting of willow and cottonwood.

- Standing within the channel looking downstream.

7 June 2018

**ATTACHMENT B:**

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**MAP OF SURVEY AREA**





<b>Legend</b> Project Parcel	 1 inch = 500 ft (printed at 8.5 x 11)		<b>Figure 1: Location Map</b> North Sycamore Creek Grading Plan - Butte County, CA -
	Imagery Source: USGS Topo Inset Imagery: National Geographic Within Section 11, Township 22N, Range 01E, Butte County, CA RICHARDSON SPRINGS USGS 7.5' Quad		 ... Designing Solutions 111 MISSION RANCH BLVD., SUITE 100 CHICO, CA 95926 PHONE: (530) 893-1600 - www.NorthStar.com
	Map Date: November 5, 2018	Drawn By: BSA	

## ATTACHMENT C:

### OBSERVED SPECIES LIST

#### Plants

Bicolored lupine	<i>Lupinus bicolor</i>
Black locust	<i>Robinia pseudoacacia</i>
Bristly ox tongue	<i>Helminthotheca echioides</i>
Buck brush	<i>Ceanothus cuneatus</i>
Chicory	<i>Cichorium intybus</i>
Foxtail barley	<i>Hordeum murinum</i>
German chamomile	<i>Metricaria chamomilla</i>
Harvest brodiaea	<i>Brodiaea elegans</i>
Hawksbit	<i>Leontodon saxatilis</i>
Indian milkweed	<i>Asclepias eriocarpa</i>
Italian rye	<i>Festuca perennis</i>
Klamath weed	<i>Hypericum perforatum</i>
Medusa head	<i>Elymus caput-medusae</i>
Ripgut brome	<i>Bromus diandrus</i>
Valley oak	<i>Quercus lobata</i>
Wild oat	<i>Avena barbata</i>
Winter vetch	<i>Vicia villosa</i>
Yellow star thistle	<i>Centaurea solstitialis</i>

#### Birds

American goldfinch	<i>Spinus tristis</i>
Barn swallow	<i>Hirundo rustica</i>
Bullock's oriole	<i>Icterus bullockii</i>
Cliff swallow	<i>Petrochelidon pyrrhonota</i>
Eurasian collared dove	<i>Streptopelia decaocto</i>
European starling	<i>Sternus vulgaris</i>
House finch	<i>Haemorhous mexicanus</i>
House sparrow	<i>Passer domesticus</i>
Lesser goldfinch	<i>Spinus psaltria</i>
Mourning dove	<i>Zenaida macroura</i>
Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>
Oak titmouse	<i>Baeolophus inornatus</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Red-tailed hawk	<i>Buteo jamacensis</i>
Turkey vulture	<i>Carthartes aura</i>
Western bluebird	<i>Sialia mexicana</i>
Western kingbird	<i>Tyrannus verticalis</i>



**ATTACHMENT D:**

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**USFWS, CDFW, AND CNPS SPECIAL-STATUS SPECIES LISTS**

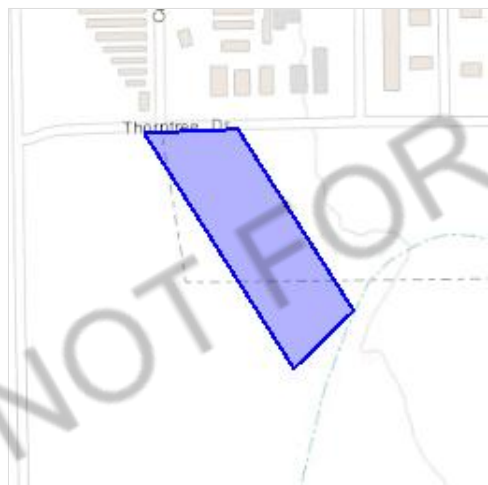
# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Butte County, California



## Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building  
2800 Cottage Way, Room W-2605  
Sacramento, CA 95825-1846

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Draw the project location and click CONTINUE.
- 2. Click DEFINE PROJECT.
- 3. Log in (if directed to do so).
- 4. Provide a name and description for your project.
- 5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
- 2. [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.

The following species are potentially affected by activities in this location:

## Reptiles

NAME	STATUS
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Giant Garter Snake *Thamnophis gigas*

Threatened

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4482>

## 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. <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

## 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. <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. <a href="https://ecos.fws.gov/ecp/species/7850">https://ecos.fws.gov/ecp/species/7850</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. <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 overlaps the critical habitat. <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 overlaps the critical habitat. <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

# Flowering Plants

NAME	STATUS
<b>Butte County Meadowfoam</b> <i>Limnanthes floccosa</i> ssp. <i>californica</i> There is <b>final</b> critical habitat for this species. Your location overlaps the critical habitat. <a href="https://ecos.fws.gov/ecp/species/4223">https://ecos.fws.gov/ecp/species/4223</a>	Endangered
<b>Slender Orcutt Grass</b> <i>Orcuttia tenuis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. <a href="https://ecos.fws.gov/ecp/species/1063">https://ecos.fws.gov/ecp/species/1063</a>	Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
<b>Butte County Meadowfoam</b> <i>Limnanthes floccosa</i> ssp. <i>californica</i> <a href="https://ecos.fws.gov/ecp/species/4223#crithab">https://ecos.fws.gov/ecp/species/4223#crithab</a>	Final
<b>Vernal Pool Fairy Shrimp</b> <i>Branchinecta lynchi</i> <a href="https://ecos.fws.gov/ecp/species/498#crithab">https://ecos.fws.gov/ecp/species/498#crithab</a>	Final
<b>Vernal Pool Tadpole Shrimp</b> <i>Lepidurus packardii</i> <a href="https://ecos.fws.gov/ecp/species/2246#crithab">https://ecos.fws.gov/ecp/species/2246#crithab</a>	Final

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

#### Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Breeds Jan 1 to Aug 31

#### Burrowing Owl *Athene cunicularia*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <https://ecos.fws.gov/ecp/species/9737>

Breeds Mar 15 to Aug 31

<b>California Thrasher</b> <i>Toxostoma redivivum</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
<b>Common Yellowthroat</b> <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/2084">https://ecos.fws.gov/ecp/species/2084</a>	Breeds May 20 to Jul 31
<b>Costa's Hummingbird</b> <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9470">https://ecos.fws.gov/ecp/species/9470</a>	Breeds Jan 15 to Jun 10
<b>Lewis's Woodpecker</b> <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a>	Breeds Apr 20 to Sep 30
<b>Nuttall's Woodpecker</b> <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9410">https://ecos.fws.gov/ecp/species/9410</a>	Breeds Apr 1 to Jul 20
<b>Oak Titmouse</b> <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9656">https://ecos.fws.gov/ecp/species/9656</a>	Breeds Mar 15 to Jul 15
<b>Rufous Hummingbird</b> <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8002">https://ecos.fws.gov/ecp/species/8002</a>	Breeds elsewhere
<b>Song Sparrow</b> <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
<b>Spotted Towhee</b> <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/4243">https://ecos.fws.gov/ecp/species/4243</a>	Breeds Apr 15 to Jul 20
<b>Wrentit</b> <i>Chamaea fasciata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

**Yellow-billed Magpie** *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

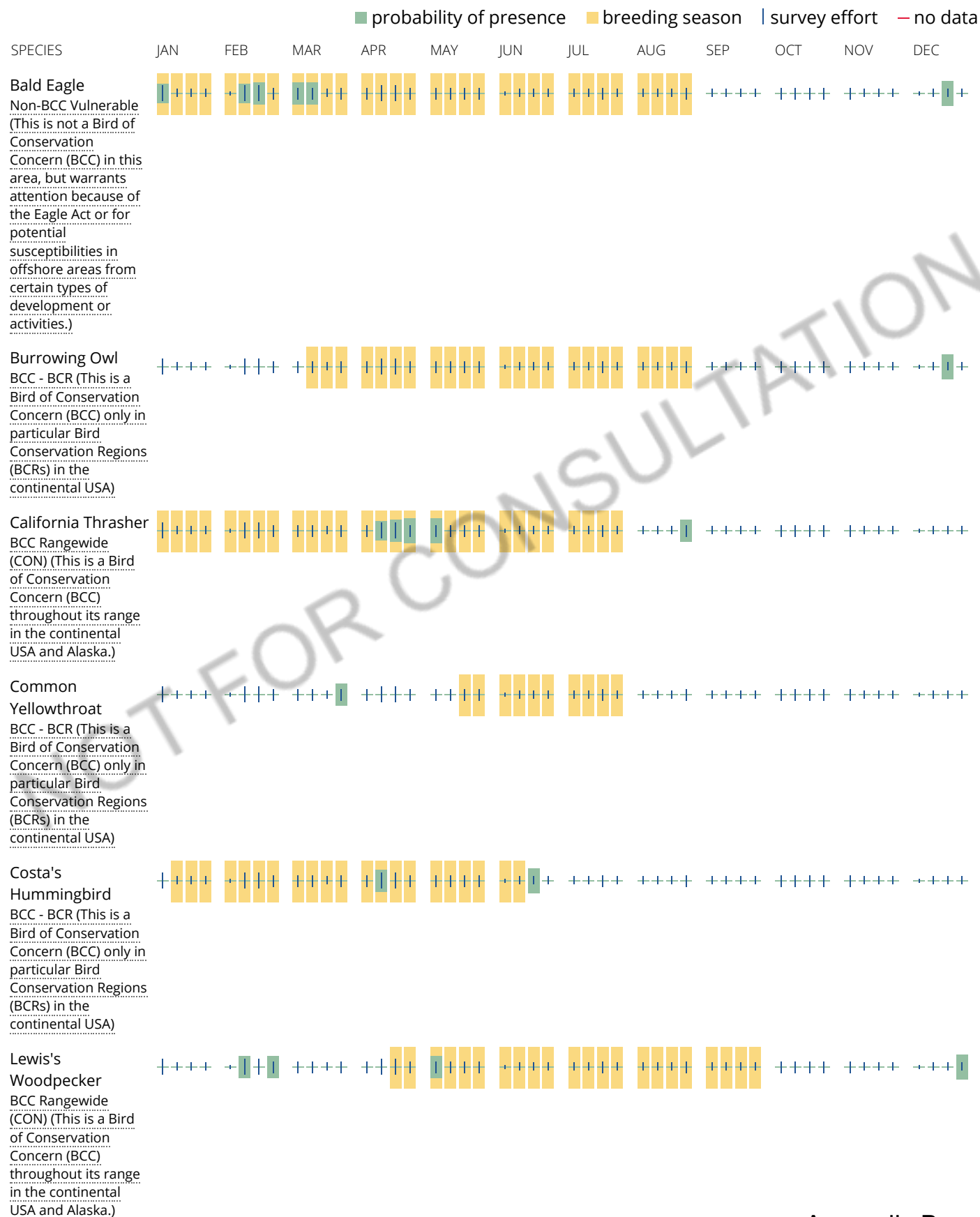
### No Data (—)

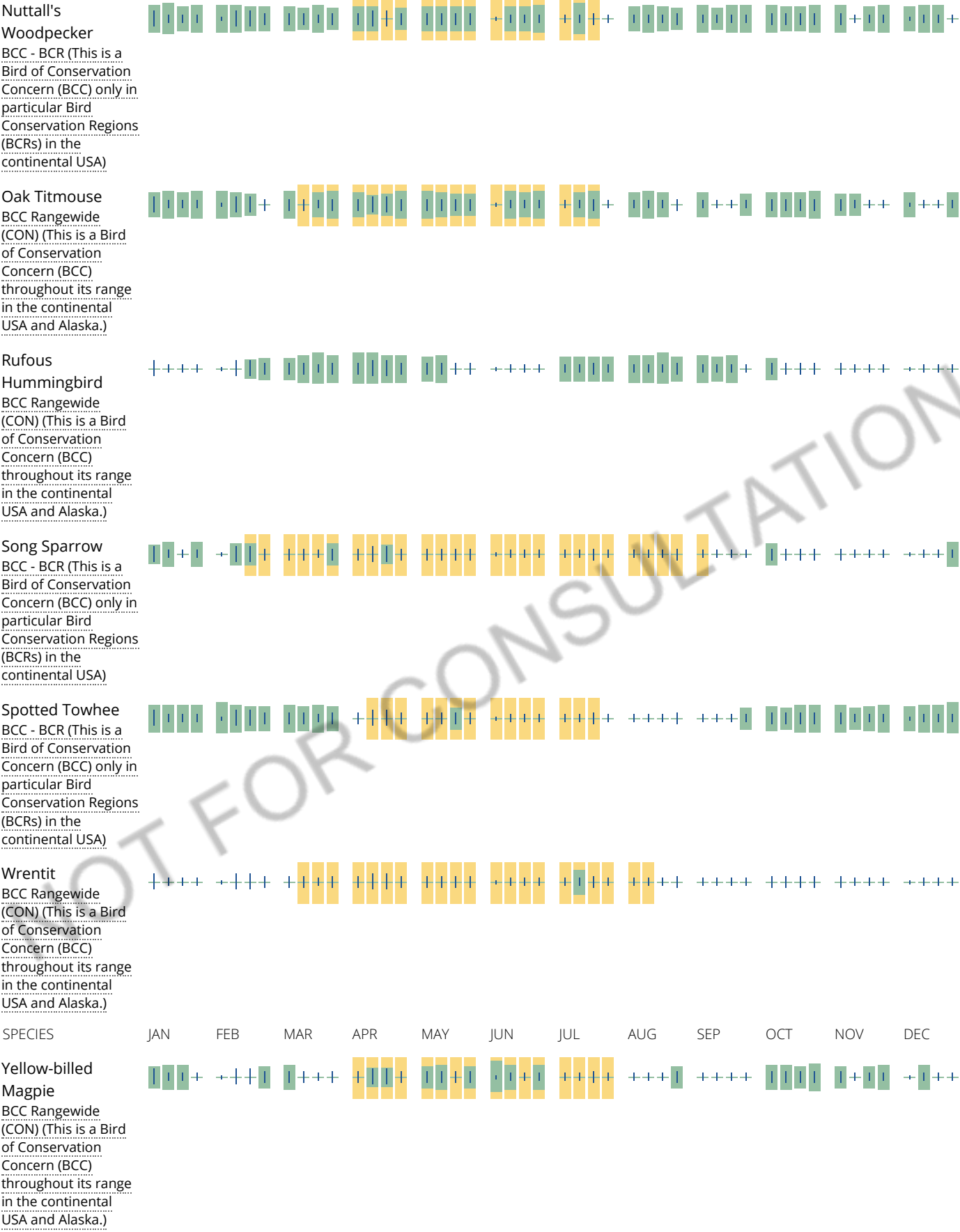
A week is marked as having no data if there were no survey events for that week.



## Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

## Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this

inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



## Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



**Query Criteria:** Quad<span style='color:Red'> IS </span>(Richardson Springs (3912177)<span style='color:Red'> OR </span>Campbell Mound (3912187)<span style='color:Red'> OR </span>Nord (3912178)<span style='color:Red'> OR </span>Paradise West (3912176)<span style='color:Red'> OR </span>Chico (3912167))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>adobe-lily</b> <i>Fritillaria pluriflora</i>	PMLIL0V0F0	None	None	G2G3	S2S3	1B.2
<b>Ahart's buckwheat</b> <i>Eriogonum umbellatum</i> var. <i>ahartii</i>	PDPGN086UY	None	None	G5T3	S3	1B.2
<b>Ahart's paronychia</b> <i>Paronychia ahartii</i>	PDCAR0L0V0	None	None	G3	S3	1B.1
<b>American peregrine falcon</b> <i>Falco peregrinus anatum</i>	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<b>bald eagle</b> <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S3	FP
<b>big-scale balsamroot</b> <i>Balsamorhiza macrolepis</i>	PDAST11061	None	None	G2	S2	1B.2
<b>brownish beaked-rush</b> <i>Rhynchospora capitellata</i>	PMCYP0N080	None	None	G5	S1	2B.2
<b>burrowing owl</b> <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
<b>Butte County checkerbloom</b> <i>Sidalcea robusta</i>	PDMAL110P0	None	None	G2	S2	1B.2
<b>Butte County fritillary</b> <i>Fritillaria eastwoodiae</i>	PMLIL0V060	None	None	G3Q	S3	3.2
<b>Butte County meadowfoam</b> <i>Limnanthes floccosa</i> ssp. <i>californica</i>	PDLIM02042	Endangered	Endangered	G4T1	S1	1B.1
<b>Butte County morning-glory</b> <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>	PDCON04012	None	None	G5T3	S3	4.2
<b>California beaked-rush</b> <i>Rhynchospora californica</i>	PMCYP0N060	None	None	G1	S1	1B.1
<b>California black rail</b> <i>Laterallus jamaicensis coturniculus</i>	ABNME03041	None	Threatened	G3G4T1	S1	FP
<b>California linderiella</b> <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
<b>California satintail</b> <i>Imperata brevifolia</i>	PMPOA3D020	None	None	G4	S3	2B.1
<b>chinook salmon - Central Valley spring-run ESU</b> <i>Oncorhynchus tshawytscha</i> pop. 6	AFCHA0205A	Threatened	Threatened	G5	S1	
<b>Conservancy fairy shrimp</b> <i>Branchinecta conservatio</i>	ICBRA03010	Endangered	None	G2	S2	
<b>dissected-leaved toothwort</b> <i>Cardamine pachystigma</i> var. <i>dissectifolia</i>	PDBRA0K1B1	None	None	G3G5T2Q	S2	1B.2



# Selected Elements by Common 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>Ferris' milk-vetch</b> <i>Astragalus tener</i> var. <i>ferrisiae</i>	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<b>flagella-like atractylocarpus</b> <i>Campylopodiella stenocarpa</i>	NBMUS84010	None	None	G5	S1?	2B.2
<b>foothill yellow-legged frog</b> <i>Rana boylei</i>	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<b>Great Valley Mixed Riparian Forest</b> <i>Great Valley Mixed Riparian Forest</i>	CTT61420CA	None	None	G2	S2.2	
<b>Great Valley Valley Oak Riparian Forest</b> <i>Great Valley Valley Oak Riparian Forest</i>	CTT61430CA	None	None	G1	S1.1	
<b>Greene's tuctoria</b> <i>Tuctoria greenei</i>	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
<b>hoary bat</b> <i>Lasiurus cinereus</i>	AMACC05030	None	None	G5	S4	
<b>Hoover's spurge</b> <i>Euphorbia hooveri</i>	PDEUP0D150	Threatened	None	G1	S1	1B.2
<b>least Bell's vireo</b> <i>Vireo bellii pusillus</i>	ABPBW01114	Endangered	Endangered	G5T2	S2	
<b>midvalley fairy shrimp</b> <i>Branchinecta mesoamericana</i>	ICBRA03150	None	None	G2	S2S3	
<b>North American porcupine</b> <i>Erethizon dorsatum</i>	AMAFJ01010	None	None	G5	S3	
<b>Northern Hardpan Vernal Pool</b> <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
<b>Northern Volcanic Mud Flow Vernal Pool</b> <i>Northern Volcanic Mud Flow Vernal Pool</i>	CTT44132CA	None	None	G1	S1.1	
<b>pallid bat</b> <i>Antrozous pallidus</i>	AMACC10010	None	None	G5	S3	SSC
<b>pink creamsacs</b> <i>Castilleja rubicundula</i> var. <i>rubicundula</i>	PDSCR0D482	None	None	G5T2	S2	1B.2
<b>Red Bluff dwarf rush</b> <i>Juncus leiostermus</i> var. <i>leiostermus</i>	PMJUN011L2	None	None	G2T2	S2	1B.1
<b>silver-haired bat</b> <i>Lasionycteris noctivagans</i>	AMACC02010	None	None	G5	S3S4	
<b>slender-leaved pondweed</b> <i>Stuckenia filiformis</i> ssp. <i>alpina</i>	PMPOT03091	None	None	G5T5	S3	2B.2
<b>steelhead - Central Valley DPS</b> <i>Oncorhynchus mykiss irideus</i> pop. 11	AFCHA0209K	Threatened	None	G5T2Q	S2	
<b>Swainson's hawk</b> <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
<b>tricolored blackbird</b> <i>Agelaius tricolor</i>	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC





Selected Elements by Common 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>valley elderberry longhorn beetle</b> <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T2	S2	
<b>vernal pool fairy shrimp</b> <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
<b>vernal pool tadpole shrimp</b> <i>Lepidurus packardii</i>	ICBRA10010	Endangered	None	G4	S3S4	
<b>western mastiff bat</b> <i>Eumops perotis californicus</i>	AMACD02011	None	None	G5T4	S3S4	SSC
<b>western pond turtle</b> <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
<b>western spadefoot</b> <i>Spea hammondi</i>	AAABF02020	None	None	G3	S3	SSC
<b>white-stemmed clarkia</b> <i>Clarkia gracilis ssp. albicaulis</i>	PDONA050J1	None	None	G5T3	S3	1B.2
<b>woolly meadowfoam</b> <i>Limnanthes floccosa ssp. floccosa</i>	PDLIM02043	None	None	G4T4	S3	4.2
<b>woolly rose-mallow</b> <i>Hibiscus lasiocarpus var. occidentalis</i>	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<b>Yuma myotis</b> <i>Myotis yumanensis</i>	AMACC01020	None	None	G5	S4	

Record Count: 50



## Plant List

### Inventory of Rare and Endangered Plants

31 matches found. *Click on scientific name for details*

#### Search Criteria

Found in Quads 3912187, 3912178, 3912177 3912176 and 3912167;

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

Common Name	Scientific Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
depauperate milk-vetch	<a href="#">Astragalus pauperculus</a>	Fabaceae	annual herb	Mar-Jun	4.3	S4	G4
Ferris' milk-vetch	<a href="#">Astragalus tener var. ferrisiae</a>	Fabaceae	annual herb	Apr-May	1B.1	S1	G2T1
big-scale balsamroot	<a href="#">Balsamorhiza macrolepis</a>	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Butte County calycadenia	<a href="#">Calycadenia oppositifolia</a>	Asteraceae	annual herb	Apr-Jul	4.2	S3	G3
Butte County morning-glory	<a href="#">Calystegia atriplicifolia ssp. buttensis</a>	Convolvulaceae	perennial rhizomatous herb	May-Jul	4.2	S3	G5T3
flagella-like atractyllocarpus	<a href="#">Campylopodia stenocarpa</a>	Dicranaceae	moss		2B.2	S1?	G5
dissected-leaved toothwort	<a href="#">Cardamine pachystigma var. dissectifolia</a>	Brassicaceae	perennial rhizomatous herb	Feb-May	1B.2	S2	G3G5T2Q
pink creamsacs	<a href="#">Castilleja rubicundula var. rubicundula</a>	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
white-stemmed clarkia	<a href="#">Clarkia gracilis ssp. albicaulis</a>	Onagraceae	annual herb	May-Jul	1B.2	S2S3	G5T2T3
marsh claytonia	<a href="#">Claytonia palustris</a>	Montiaceae	perennial herb	May-Oct	4.3	S4	G4
shield-bracted monkeyflower	<a href="#">Erythranthe glaucescens</a>	Phrymaceae	annual herb	Feb-Aug(Sep)	4.3	S3S4	G3G4
Hoover's spurge	<a href="#">Euphorbia hooveri</a>	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
Butte County fritillary	<a href="#">Fritillaria eastwoodiae</a>	Liliaceae	perennial bulbiferous herb	Mar-Jun	3.2	S3	G3Q
adobe-lily	<a href="#">Fritillaria pluriflora</a>	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2S3	G2G3
hogwallow starfish	<a href="#">Hesperis matronalis</a>	Asteraceae	annual herb	Mar-Jun	4.2	S3	G3
woolly rose-mallow	<a href="#">Hibiscus lasiocarpus var. occidentalis</a>	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	1B.2	S3	G5T3
California satintail	<a href="#">Imperata brevifolia</a>	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
Red Bluff dwarf rush	<a href="#">Juncus leiospermus var. leiospermus</a>	Juncaceae	annual herb	Mar-Jun	1B.1	S2	G2T2
Humboldt lily		Liliaceae	perennial bulbiferous	May-	4.2	S3	G4T3

Appendix B

	<a href="#"><u>Lilium humboldtii ssp. humboldtii</u></a>		herb	Jul(Aug)			
Butte County meadowfoam	<a href="#"><u>Limnanthes floccosa ssp. californica</u></a>	Limnanthaceae	annual herb	Mar-May	1B.1	S1	G4T1
woolly meadowfoam	<a href="#"><u>Limnanthes floccosa ssp. floccosa</u></a>	Limnanthaceae	annual herb	Mar-May(Jun)	4.2	S3	G4T4
veiny monardella	<a href="#"><u>Monardella venosa</u></a>	Lamiaceae	annual herb	May,Jul	1B.1	S1	G1
Tehama navarretia	<a href="#"><u>Navarretia heterandra</u></a>	Polemoniaceae	annual herb	Apr-Jun	4.3	S4	G4
adobe navarretia	<a href="#"><u>Navarretia nigelliformis ssp. nigelliformis</u></a>	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
Ahart's paronychia	<a href="#"><u>Paronychia ahartii</u></a>	Caryophyllaceae	annual herb	Feb-Jun	1B.1	S3	G3
Bidwell's knotweed	<a href="#"><u>Polygonum bidwelliae</u></a>	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
California beaked-rush	<a href="#"><u>Rhynchospora californica</u></a>	Cyperaceae	perennial rhizomatous herb	May-Jul	1B.1	S1	G1
brownish beaked-rush	<a href="#"><u>Rhynchospora capitellata</u></a>	Cyperaceae	perennial herb	Jul-Aug	2B.2	S1	G5
Butte County checkerbloom	<a href="#"><u>Sidalcea robusta</u></a>	Malvaceae	perennial rhizomatous herb	Apr,Jun	1B.2	S2	G2
slender-leaved pondweed	<a href="#"><u>Stuckenia filiformis ssp. alpina</u></a>	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S3	G5T5
Greene's tuctoria	<a href="#"><u>Tuctoria greenei</u></a>	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1

### Suggested Citation

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#### Contributors

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[CalPhotos](#)

#### Questions and Comments

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

## ATTACHMENT E:

### SPECIAL-STATUS SPECIES AND SENSITIVE NATURAL COMMUNITIES

Table 1. Special-status species that occur or potentially occur in the survey area.

Common Name ( <i>Scientific Name</i> )	Status Fed/State/ CNPS	Associated Habitats	Potential for Occurrence*
SENSITIVE NATURAL COMMUNITIES			
<b>Great Valley Mixed Riparian Forest</b>	___/SNC/___	A tall, dense, winter-deciduous, broadleaved riparian forest. The tree canopy is usually fairly well closed and moderately to densely stocked with several species including <i>Acer negundo</i> , <i>Juglans hindsii</i> , <i>Platanus racemosa</i> , <i>Populus fremontii</i> , and <i>Salix</i> spp.	<u>None</u> : Does not occur within the BSA.
<b>Great Valley Valley Oak Riparian Forest</b>	___/SNC/___	Occurs on the deep alluvial soils of higher floodplain terraces in association with river systems. Can also be found in other upland communities.	<u>None</u> : Does not occur within the BSA.
<b>Northern Hardpan Vernal Pool</b>	___/SNC/___	Seasonally flooded depressions on impermeable soils or rock.	<u>None</u> : Does not occur within the BSA.
<b>Northern Volcanic Mud Flow Vernal Pool</b>	___/SNC/___	Seasonally flooded depressions on impermeable soils or rock.	<u>None</u> : Does not occur within the BSA.
PLANTS			
<b>Adobe Lily</b> ( <i>Fritillaria pluriflora</i> )	___/___/1B.2	Chaparral, cismontane woodland, valley and foothill grassland. (Feb-Apr)	<u>Low</u> : Sub-marginal habitat present in the BSA.
<b>Adobe Navarretia</b> ( <i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i> )	___/___/4.2	Woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools. (Apr-Jul)	<u>Low</u> : No suitable vernal pool habitat, submarginal grassland habitat present.
<b>Ahart's Buckwheat</b> ( <i>Eriogonum umbellatum</i> var. <i>ahartii</i> )	___/___/1B.2	Serpentine soils, openings, and slopes in chaparral and cismontane woodland. (Jun-Sep)	<u>None</u> : No suitable cismontane woodland or serpentine soils within BSA.
<b>Ahart's Paronychia</b> ( <i>Paronychia ahartii</i> )	___/___/1B.1	Cismontane woodland, valley and foothill grassland, and vernal pools. (Mar-Jun)	<u>None</u> : No vernal pool habitat present within the BSA
<b>Bidwell's knotweed</b> ( <i>Polygonum bidwelliae</i> )	___/___/4.3	Grows in chaparral, woodland, and grassland habitat on volcanic soils.	<u>Low</u> : Sub-marginal grassland habitat present within the BSA.
<b>Big-scale Balsam Root</b> ( <i>Balsamorhiza macrolepis</i> )	___/___/1B.2	Cismontane woodlands and chaparral. Valley and Foothill grasslands. Sometimes serpentine. (Mar-June)	<u>Low</u> : Sub-marginal grassland habitat present within the BSA.

<b>Common Name (Scientific Name)</b>	<b>Status Fed/State/ CNPS</b>	<b>Associated Habitats</b>	<b>Potential for Occurrence*</b>
<b>Brownish Beaked-Rush</b> ( <i>Rhynchospora capitellata</i> )	___/___/2B.2	Lower montane coniferous forest, meadows and seeps, marshes and swamps, upper montane coniferous forest.	<u>Low</u> : Sub-marginal mesic habitat present within the BSA.
<b>Butte County Calycadenia</b> ( <i>Calycadenia oppositifolia</i> )	___/___/4.2	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland. (Apr-Jul)	<u>None</u> : No suitable chaparral or woodland habitats present within the BSA.
<b>Butte County Checkerbloom</b> ( <i>Sidalcea robusta</i> )	___/___/1B.2	Chaparral and cismontane woodland. (Apr-Jun)	<u>None</u> : No suitable chaparral or woodland habitats present within the BSA.
<b>Butte County Fritillary</b> ( <i>Fritillaria eastwoodiae</i> )	___/___/3.2	Chaparral, cismontane woodland, openings in lower montane coniferous forests, sometimes serpentinite. (Mar-Jun)	<u>None</u> : No suitable chaparral or coniferous habitat present within the BSA.
<b>Butte County Meadowfoam</b> ( <i>Limnanthes floccosa</i> ssp. <i>californica</i> )	FE/SE/1B.1	Valley and foothill grassland, vernal pools. (Mar-May)	<u>None</u> : No vernal swale or pool habitat present within the BSA.
<b>Butte County Morning-glory</b> ( <i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i> )	___/___/4	Chaparral and rocky lower montane coniferous forest, sometimes roadsides. (May-Jul)	<u>None</u> : No suitable rocky montane habitat present within the BSA.
<b>California Beaked-rush</b> ( <i>Rhynchospora californica</i> )	___/___/1B.1	Bogs and fens, lower montane coniferous forest, meadows and seeps, and marshes and swamps. (May-Jul)	<u>None</u> : No suitable marsh habitat present within the BSA.
<b>California Satintail</b> ( <i>Imperata brevifolia</i> )	___/___/2B.1	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and mesic riparian scrub, 0-500 meters. (Sep-May)	<u>Low</u> : Sub-marginal mesic habitat present within the BSA.
<b>Depauperate Milk-Vetch</b> ( <i>Astragalus pauperculus</i> )	___/___/4.3	Vernally mesic, volcanic, chaparral, cismontane woodland, valley and foothill grassland. (Mar-Jun)	<u>None</u> : No vernal wet grassland habitat within BSA
<b>Dissected-leaved Toothwort</b> ( <i>Cardamine pachystigma</i> var. <i>dissectifolia</i> )	___/___/1B.2	Chaparral and lower montane coniferous forests, usually serpentinite and rocky. (Feb-May)	<u>None</u> : No suitable chaparral or coniferous forest habitat present within the BSA.
<b>Ferris's Milk-vetch</b> ( <i>Astragalus tener</i> var. <i>ferrisiae</i> )	___/___/1B.1	Meadows and seeps, valley and foothill grassland. (Apr-May)	<u>Low</u> : Sub-marginal mesic habitat present within the BSA.
<b>Flagella-like Atractylodes</b> ( <i>Campylopodia stenocarpa</i> )	___/___/2B.2	Cismontane woodland, 100-500 meters.	<u>None</u> : No suitable woodland habitat present within the BSA.
<b>Greene's Tuctoria</b> ( <i>Tuctoria greenii</i> )	FE/___/1B.1	Vernal pools. (May-Jul/Sept)	<u>None</u> : No vernal pool habitat present within BSA.
<b>Hogwallow Starfish</b> ( <i>Hesperoxys caulescens</i> )	___/___/4.2	Sometimes alkaline. Valley and foothill grassland (mesic, clay), vernal pools (shallow). (Mar-Jun)	<u>None</u> : No suitable vernal pool habitat within the BSA.
<b>Hoover's Spurge</b> ( <i>Chamaesyce hooveri</i> )	FT/___/1B.2	Vernal pools. (Jul-Sep/Oct)	<u>None</u> : No vernal pool habitat present within BSA.

<b>Common Name (Scientific Name)</b>	<b>Status Fed/State/ CNPS</b>	<b>Associated Habitats</b>	<b>Potential for Occurrence*</b>
<b>Humboldt Lily</b> ( <i>Lilium humboldtii</i> ssp. <i>humboldtii</i> )	___/___/1B.1	Openings. Chaparral. Cismontane woodland, and lower montane coniferous forest. (May-Jul(Aug))	<u>None</u> : No suitable chaparral, cismontane forest, or lower montane forest habitat present within the BSA.
<b>Marsh Claytonia</b> ( <i>Claytonia palustris</i> )	___/___/4.3	Meadows and seeps (mesic). Marshes and swamps. Upper montane coniferous forest. (May-Oct)	<u>None</u> : No suitable habitat within BSA
<b>Pink Creamsacs</b> ( <i>Castilleja rubicundula</i> ssp. <i>rubicundula</i> )	___/___/1B.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland (serpentine). (Apr-Jun)	<u>Low</u> : Sub-marginal grassland habitat present within the BSA.
<b>Red Bluff Dwarf Rush</b> ( <i>Juncus leiospermus</i> var. <i>leiospermus</i> )	___/___/1B.1	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland and vernal pools/vernally mesic habitats. (Mar-May)	<u>Low</u> : Sub-marginal mesic habitat present within the BSA.
<b>Shield-bracted monkeyflower</b> ( <i>Erythranthe glaucescens</i> )	___/___/4.3	Serpentine seeps, sometimes streambanks. Chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland. (Feb-Aug(Sep))	<u>None</u> : No suitable seep habitat within BSA
<b>Slender-leaved Pondweed</b> ( <i>Stuckenia filiformis</i> ssp. <i>alpina</i> )	___/___/2B.2	Marshes and swamps (assorted shallow freshwater). (May-July)	<u>None</u> : No suitable marsh habitat present within the BSA.
<b>Tehama Navarretia</b> ( <i>Navarretia heterandra</i> )	___/___/4.3	Mesic valley and foothill grasslands, vernal pools. (April-June)	<u>None</u> : No suitable vernal pool habitat present within the BSA.
<b>Veiny Monardella</b> ( <i>Monardella venosa</i> )	___/___/1B.1	Cismontane woodlands. Valley and foothill grasslands in heavy clay soils. (May-July)	<u>None</u> : Only known population in Butte County is found approximately 9.6 miles southeast of the BSA.
<b>White-stemmed Clarkia</b> ( <i>Clarkia gracilis</i> ssp. <i>albicaulis</i> )	___/___/1B.2	Chaparral and cismontane woodland (sometimes serpentine). (May-Jul)	<u>None</u> : No suitable chaparral or woodland habitat present within the BSA.
<b>Woolly meadowfoam</b> ( <i>Limnanthes floccosa</i> ssp. <i>floccosa</i> )	___/___/4	Edge of vernal pools at elevations of 375 to 400 meters. (Mar-Apr)	<u>None</u> : No vernal pool habitat within BSA
<b>Wooly Rose-mallow</b> ( <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i> )	___/___/1B.2	Marshes and swamps (freshwater). (Jun-Sep)	<u>None</u> : No suitable swamp or marsh habitat within BSA
<b>INVERTEBRATES</b>			
<b>Conservancy Fairy Shrimp</b> ( <i>Branchinecta conservatio</i> )	FE/___/___	Moderately turbid, deep, cool-water vernal pool	<u>None</u> : No vernal pool habitat present in BSA.
<b>California Linderiella</b> ( <i>Linderiella occidentalis</i> )	___/___/___	Vernal pools, swales, and ephemeral freshwater habitat.	<u>None</u> : No vernal pool habitat present in BSA.

<b>Common Name (Scientific Name)</b>	<b>Status Fed/State/ CNPS</b>	<b>Associated Habitats</b>	<b>Potential for Occurrence*</b>
<b>Conservancy Fairy Shrimp</b> ( <i>Branchinecta conservatio</i> )	FE/___/___	Moderately turbid, deep, cool-water vernal pool	<u>None</u> : No vernal pool habitat present in BSA.
<b>Midvalley fairy shrimp</b> ( <i>Branchinecta mesovallensis</i> )	___/___/___	Vernal pools, swales, and ephemeral freshwater habitat	<u>None</u> : No vernal pool habitat present in BSA.
<b>Valley Elderberry Longhorn Beetle</b> ( <i>Desmocerus californicus dimorphus</i> )	FT/___/___	Blue elderberry shrubs usually associated with riparian areas.	<u>None</u> : No elderberry plants (the sole host plant of this beetle) occur within the BSA.
<b>Vernal Pool Fairy Shrimp</b> ( <i>Branchinecta lynchi</i> )	FT/___/___	Vernal pools, swales, and ephemeral freshwater habitat.	<u>None</u> : No vernal pool habitat present in BSA..
<b>Vernal Pool Tadpole Shrimp</b> ( <i>Lepidurus packardii</i> )	FE/___/___	Vernal pools, swales, and ephemeral freshwater habitat.	<u>None</u> : No vernal pool habitat present in BSA.
<b>REPTILES AND AMPHIBIANS</b>			
<b>California Red-legged Frog</b> ( <i>Rana draytonii</i> )	FT/___/___	Inhabits quiet pools of streams, marshes, and occasionally ponds.	<u>None</u> : Species presumed extirpated from the valley. Additionally, no suitable aquatic habitat present within the BSA.
<b>Foothill Yellow-legged Frog</b> ( <i>Rana boylei</i> )	___/SSC/___	Partly-shaded, shallow streams and riffles with cobble-sized substrate for egg- laying.	<u>None</u> : No suitable stream habitat present within the BSA.
<b>Giant Garter Snake</b> ( <i>Thamnophis gigas</i> )	FT/ST/___	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	<u>None</u> : No suitable wetland habitat present within the BSA.
<b>Northwestern Pond Turtle</b> ( <i>Actinemys marmorata marmorata</i> )	___/SSC/___	Associated with permanent ponds, lakes, streams, and irrigation ditches or permanent pools along intermittent streams.	<u>None</u> : No suitable stream habitat present within the BSA.
<b>Western Spadefoot</b> ( <i>Spea hammondi</i> )	___/SSC/___	Grassland and woodland and vernal pools without aquatic predators for breeding.	<u>Low</u> : No suitable breeding habitat is present within the BSA.
<b>FISH</b>			
<b>Central Valley Spring-Run Chinook Salmon</b> ( <i>Oncorhynchus tshawytscha</i> )	FT/ST/___	Sacramento River and tributaries.	<u>None</u> : No suitable riverine habitat present within the BSA.
<b>Central Valley Steelhead</b> ( <i>Oncorhynchus mykiss</i> )	FT/___/___	Sacramento and San Joaquin Rivers and their tributaries.	<u>None</u> : No suitable riverine habitat present within the BSA.
<b>Delta Smelt</b> ( <i>Hypomesus transpacificus</i> )	FT/ST/___	Sacramento-San Joaquin Estuary	<u>None</u> : No suitable estuary habitat within the BSA.
<b>BIRDS</b>			

<b>Common Name (Scientific Name)</b>	<b>Status Fed/State/ CNPS</b>	<b>Associated Habitats</b>	<b>Potential for Occurrence*</b>
<b>American peregrine falcon</b> ( <i>Falco peregrinus anatum</i> )	__/_/	Breeding Peregrine Falcons utilize habitats containing cliffs and almost always nest near water. Open habitats for foraging. Non-breeding Peregrine Falcons may also occur in open areas without cliffs.	<u>Low</u> : No nesting habitat present in the BSA; however suitable foraging habitat is present.
<b>Bald Eagle</b> ( <i>Haliaeetus leucocephalus</i> )	__/_SE/	Lakes, rivers, estuaries, reservoirs and some coastal habitats.	<u>None</u> : No suitable habitat present within the BSA.
<b>Burrowing Owl</b> ( <i>Athene cunicularia</i> )	__/_SSC/	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat.	<u>Low</u> : Sub-marginally suitable grassland habitat present within the BSA. However, no burrows were present within the BSA.
<b>California Black Rail</b> ( <i>Laterallus jamaicensis coturniculus</i> )	__/_ST/	Yearlong resident of saline, brackish, and fresh emergent wetlands in the San Francisco Bay Area, Sacramento-San Joaquin Delta, coastal Southern California, the Salton Sea and lower Colorado River area.	<u>None</u> : No suitable habitat present within the BSA.
<b>Least Bell's Vireo</b> ( <i>Vireo bellii pusillus</i> )	FE/_SE/	Riparian forests, woodlands, scrubs.	<u>None</u> : No suitable riparian habitat present in the BSA.
<b>Swainson's Hawk</b> ( <i>Buteo swainsoni</i> )	__/_ST/	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat including grasslands or suitable grain or alfalfa fields, or livestock pastures.	<u>Low</u> : No suitable nesting habitat present in the BSA; however suitable foraging habitat is present.
<b>Tri-colored Blackbird</b> ( <i>Agelaius tricolor</i> )	__/_SSC/	Nests in dense blackberry, cattail, tules, willow, or wild rose within emergent wetlands throughout the Central valley and foothills surrounding the valley.	<u>None</u> : No suitable nesting habitat present within the BSA.
<b>Migratory Birds and Raptors</b>	MBTA	Nest and forage in a variety of habitats including hardwood woodlands, coniferous forests, meadows, grasslands and riparian.	<u>Known</u> : Birds protected by the MBTA observed on-site. Additionally, nesting habitat present in the BSA; and suitable foraging habitat is present.
<b>MAMMALS</b>			
<b>Hoary Bat</b> ( <i>Lasiurus cinereus</i> )	__/_/	Roosting habitat includes woodlands and forests with medium to large-sized trees and dense foliage. Adjacent open areas are required for feeding.	<u>Low</u> : No suitable roosting habitat present, open area for foraging present within the BSA.
<b>North American porcupine</b> ( <i>Erethizon dorsatum</i> )	__/_/	Coniferous, deciduous and mixed forests. Prefers scrubby areas	<u>None</u> : No suitable habitat within BSA.
<b>Pallid Bat</b> ( <i>Antrozous pallidus</i> )	__/_SSC/	Arid and semi-arid habitats; roosts in rock crevices, caves, and mine shafts.	<u>Low</u> : No suitable roosting habitat present within the BSA.



Common Name ( <i>Scientific Name</i> )	Status Fed/State/ CNPS	Associated Habitats	Potential for Occurrence*
<b>Silver-haired Bat</b> ( <i>Lasionycteris noctivagans</i> )	—/_/_	Coniferous and mixed deciduous forest as well as riparian areas.	<u>Low</u> : No suitable deciduous forest habitat present within the BSA.
<b>Western Mastiff Bat</b> ( <i>Eumops perotis californicus</i> )	—/SSC/_	Common species of low elevations in California. Crevices in steep cliff faces or in the roof eaves of buildings of two or more stories (needs vertical faces to take flight).	<u>Low</u> : No suitable roosting habitat present within the BSA. Foraging habitat present in the BSA.
<b>Yuma Myotis</b> ( <i>Myotis yumanensis</i> )	_/_/_	Woodland and forested areas, large buildings and abandoned mine tunnels within one-half mile of a surface water source; abandoned swallow nests under bridges.	<u>Low</u> : No suitable roosting habitat present within the BSA.
<p align="center"><b><u>CODE DESIGNATIONS</u></b></p> <div> <div> <b>FE</b> = Federally-listed Endangered  <b>FT</b> = Federally-listed Threatened  <b>FC</b> = Federal Candidate Species  <b>BCC</b> = Federal Bird of Conservation Concern  <b>MBTA</b> = protected by the federal Migratory Bird Treaty Act   <b>SE</b> = State-listed Endangered  <b>ST</b> = State-listed Threatened  <b>SH</b> = Presumed extinct in California </div> <div> <b>SSC</b> = CDFW Species of Special Concern  <b>FP</b> = CDFW Fully Protected Species  <b>SNC</b> = CDFW Sensitive Natural Community   <b>CNPS 1B</b> = Rare or Endangered in California or elsewhere  <b>CNPS 2</b> = rare or Endangered in California, more common elsewhere  <b>CNPS 3</b> = More information is needed  <b>CNPS 4</b> = Plants with limited distribution </div> </div>			
<p><b>*Potential for occurrence:</b> for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, over-winter, or stop-over in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential for occurrence. The categories for the potential for occurrence include:</p> <p><u>None</u>: The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficient surveys, the lack of suitable habitat, and/or the BSA is well outside of the known distribution of the species.</p> <p><u>Low</u>: Potential habitat in the BSA is sub-marginal and the species is not known to occur in the vicinity of the BSA. Protocol-level surveys are not recommended.</p> <p><u>Moderate</u>: Suitable habitat is present in the BSA and the species is known to occur in the vicinity of the BSA.</p> <p><u>High</u>: 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.</p> <p><u>Known</u>: Species was detected in the BSA or a recent reliable record exists for the BSA.</p>			

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neinfocntr@csuchico.edu

June 4, 2019

City of Chico  
Community Development Department – Planning  
P.O. Box 3420  
Chico, CA 95927  
Attn: Ms. Shannon Costa



**I.C. File # R19-1  
Project Review**

RE: ER 19-02 (Thorntree)/ Don Brown/ APN 016-200-122  
T22N, R1E MDBM / Arroyo Chico Land Grant  
USGS Richardson Springs 7.5' and 15' quadrangles  
7 acres (Butte County)

Dear Ms. Costa,

In response to your request, a project review for the project cited above was conducted by examining the official maps and records for archaeological sites and surveys in Butte County.

**RESULTS:**

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

**Historic Resources:** According to our records, no sites of this type have been recorded in the project area. However, one site of this type has been recorded within a quarter mile of the project. This consists of a rail grade that was once part of the Sacramento Northern Railroad/Northern Electric Railroad. Unrecorded historic cultural resources may be located in the project area.

The USGS Richardson Springs (1952) 15' quad map indicates Sycamore Creek and the Arroyo Chico Land Grant are within the project area while the Chico Municipal Airport, roads, and buildings are in the project vicinity. The GLO (1867) map indicates the Rancho Arroyo Chico is within the project area and a historic road is within the project vicinity. A copy of this is enclosed.

The Arroyo Chico land grant was first given to William Dickey in 1844, the same year that Edward A. Farwell obtained Rancho Farwell. By the late 1840s, General John Bidwell had purchased both of these grants from the original grantees, forming Rancho Chico, a major land holding in the area. The town of Chico was founded in the year 1860 on the Rancho Arroyo land grant. Bidwell later donated land for public schools, setting aside a plot of ground for each church organization, and designating a large section for the Northern Branch State Normal School, started in 1887. The Normal School would later become California State University at Chico.

**Previous Archaeological Investigations:** According to our records, the project area has been previously surveyed for cultural resources. The studies are listed below.

Manning, James P. (Society for California Archaeology)

1980 *Archaeological Reconnaissance of the Proposed Foothill Park Subdivision*  
(Addition)

**NEIC Report 009382**

Resources:

None

**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** (2009), **California Investigation of Historic Resources** (1976), **California Historical Landmarks** (2012), **Gold Districts of California – Bulletin 193** (2012), **Historic Spots in California – Fifth Edition** (2002), **Handbook of North American Indians, Vol. 8, California** (1978), and **Directory of Properties in the Historic Property Data File for Butte County** (2012).

## **RECOMMENDATIONS:**

Based upon the above information and the local topography, and regional history, the project is located in an area considered to be highly sensitive for prehistoric, protohistoric, and historic cultural resources. The *Mechoopda* subgroup of Konkow Maidu populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for farming and transportation opportunities.

Therefore, due to the sensitivity, and because the previous survey is more than ten years old, we recommend that a professional archaeologist be contacted to conduct a cultural resources review of the project area. The consultant can offer recommendations for avoidance and protection of

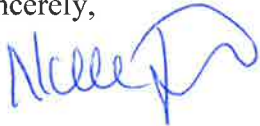
previously recorded as well as any newly identified resources. In addition, any existing structures should be evaluated for potential historical significance. The project archaeologist will be able to offer recommendations for the preservation of or mitigation of effects on any cultural resources encountered as a result of field survey. A list of qualified consultants is available online at [www.chrisinfo.org](http://www.chrisinfo.org).

The project archaeologist should also 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 Native American Heritage Commission should be contacted at (916) 373-3710 for information regarding Native American representatives in the vicinity of the project.

During any phase of parcel development, if any potential prehistoric, protohistoric, and/or historic cultural resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential cultural resource find is intended for accidental discoveries made during construction activities, and is not intended as a substitute for the recommended cultural resources survey.

The fee for this project review is \$75.00 (1 hour of Project Review Time @ \$75.00 per hour). Payment for this project review was received on May 9, 2019 (Check # 11257). Thank you for your dedication in preserving Butte County's and California's irreplaceable cultural heritage, and please feel free to contact us if you have any questions or need any further information or assistance.

Sincerely,



Noel Jones  
Research Associate



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COMMUNITY DEVELOPMENT  
DEPARTMENT

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411 Main Street – 2<sup>nd</sup> Floor  
P.O. Box 3420  
Chico, CA 95927

PLANNING SERVICES  
(530) 879-6800  
Fax (530) 895-4726  
<http://www.ci.chico.ca.us>

March 18, 2019

Mechoopda Indian Tribe of Chico Rancheria  
Attn: Environmental Coordinator  
125 Mission Ranch Blvd.  
Chico, CA 95926

To whom it may concern,

RE: Notification Pursuant to Assembly Bill 52 of Complete Development Project Applications for the Thorntree Grading Permit located on the south side of Thorntree Drive, approximately 700 feet easterly of Cohasset Road, APN 016-200-122

In response to Assembly Bill 52, as codified under Public Resources Code (PRC) section 21080.3.1, the City of Chico is offering the Mechoopda Indian Tribe of Chico Rancheria the opportunity to consult regarding potential Tribal Cultural Resources at a certain project site located in the Chico area. The purpose of the consultation is to allow an opportunity for participation in land use decisions to protect or mitigate impacts to Tribal Cultural Resources.

Project Location: The project site is located on the south side of Thorntree Drive, approximately 700 feet easterly of Cohasset Road, APN 016-200-122

Brief Description: The proposed project involves grading of an approximate 6.9-acre area to facilitate the future development of the site. The grading will involve a cut volume of approximately 1,017 cubic yards with a fill volume of approximately 8,550 cubic yards of material across the site. The types of equipment used for the project may include, but are not limited to, a grader, dump haul trucks, backhoe, excavator, and work trucks. The project will maintain a distance of 15-feet away from the toe of the existing Sycamore Creek Federal Setback Levee. With the addition of the 10-foot width for the upland flow conveyance ditch the distance grading will maintain from the setback levee is 25-feet. The project is approximately 110 feet away from the top of bank of Sycamore Creek and approximately 165 feet from the centerline of Sycamore Creek. The proposed grading is to facilitate the future development of the site. No project is proposed at this time. Future land use proposals would require additional entitlement from the City of Chico, for which additional environmental review may be necessary.

Review of the proposal pursuant to CEQA resulted in the preparation of a mitigated negative declaration, which will undergo circulation at a later date. The site is classified High Sensitivity on the Prehistoric Archaeological Sensitivity Areas map in the Chico General Plan. Additional project details are available upon request.

The City of Chico would appreciate notification of whether your Tribe desires to consult regarding this project, or declines the opportunity to consult, at your earliest convenience. PRC

21080.3.1(d) sets forth a time frame of 30 days to respond and initiate consultation. Please contact me at (530)879-6807 or via email at [shannon.costa@chicoca.gov](mailto:shannon.costa@chicoca.gov) regarding the Tribe's interest in this matter. I would also be happy to provide any further information regarding this project or the City's authority in this particular matter.

Sincerely,

Shannon Costa  
Associate Planner

Enclosures: Location Map