



PINE CREEK BOAT RAMP REPAIR PROJECT

Initial Study and Mitigated Negative Declaration

Prepared for:
California Department of Boating and Waterways



Prepared by:



April 13, 2012

PROPOSED MITIGATED NEGATIVE DECLARATION

Project: Pine Creek Boat Ramp Repair Project

Lead Agency: California Department of Boating and Waterways

Applicant: California Department of Boating and Waterways

PROJECT DESCRIPTION

The existing Pine Creek Boat Launch Area is located in western Butte County on Pine Creek, tributary to the Sacramento River. It is a sub-unit of the Bidwell-Sacramento River State Park, owned and operated by the California Department of Parks and Recreation (State Parks). Due to deterioration of the facilities at the Pine Creek Boat Ramp (described above under *Project Purpose*) and the need to upgrade certain facilities to Americans with Disabilities Act (ADA) standards, State Parks has requested the California Department of Boating and Waterways (DBW) to design and construct a replacement boat ramp and to make ancillary improvements at the site.

The existing facilities on the project site include a 23-space parking lot, restroom, three picnic tables with canopies, and a 20-foot wide by 122-foot long boat ramp.

The Proposed Project would involve the following activities:

- Demolition of the existing precast panels and beams, and removal of the debris off-site for recycling;
- Grading of the site (approximately 10 cubic yards of material moved);
- Removal of 0.06-acres of vegetation on the east and west side of the ramp;
- Driving of three 12-inch diameter steel pipe piles, and two 16-inch diameter concrete piles;
- Placement of precast concrete panels (approximately 90 cubic yards of concrete) to form the new ramp, which will be expanded from its current dimensions of 20 feet wide and 122 feet long, to the proposed dimensions of 24-feet wide and 142 feet long. The greater length is needed to allow year-round use of the ramp, and the greater width is needed in order to provide room for the boarding float on the ramp, and still provide a 18-foot launch lane;
- Installation of a 6-foot wide boarding float entire length of the boat ramp;
- Placement of approximately 200 cubic yards of rip-rap to decrease the drop-offs on both sides of the ramp.
- Construction of a wheelchair-accessible path of travel between the bathroom and the top of the boat ramp;
- Replacement of some signage on the bathroom.

The total construction period for the Proposed Project is expected to be 2 months. Equipment used is expected to include: a backhoe; a skidsteer; a crane, fork lift and piling truck; and paving equipment. Pile driving is expected to last 1-2 days.

A number of Minimization Measures have been included in the Proposed Project to reduce or eliminate the environmental impacts of project construction. These are described in full under *Project Description* in the Initial Study.

FINDINGS

An Initial Study (IS) has been prepared to describe and assess the significance of potential environmental impacts of the Proposed Project. Based on the results of the IS, it has been determined that the Proposed Project will have the following effects:

- No impacts on the following resources: agricultural resources, land use and planning, mineral resources, population and housing, public services,
- Less-than-significant impacts on the following resources: aesthetics, air quality, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, recreation, transportation and traffic, and utilities and service systems.
- Significant impacts on the following resources, which will require mitigation: biology.

DBW has incorporated 47 minimization measures into the project description to protect environmental resources. In addition, the following mitigation measure is required to reduce these impacts to less than significant:

- DBW will obtain a Lake or Streambed Alteration Agreement from DGF prior to initiating work on the Proposed Project. In issuing this agreement, DFG will require mitigation for the loss of riparian habitat, and DBW will purchase 0.06 acres of riparian habitat credits from an authorized mitigation bank serving the project area or equivalent mitigation.

Questions or comments regarding this IS/MND may be addressed to:

Brian Rickards

California Department of Boating and Waterways

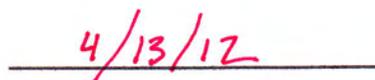
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Brian Rickards
Project Engineer



Date

1. PROJECT PURPOSE AND PROJECT DESCRIPTION

INTRODUCTION AND CONTEXT

The California Department of Boating and Waterways (DBW) mission is “To provide safe and convenient public access to California’s waterways and leadership in promoting the public’s right to safe, enjoyable, and environmentally sound recreational boating.” (California Department of Boating and Waterways website). As part of their implementation of this mission, DBW monitors the condition of facilities within their jurisdiction and makes repairs to facilities not meeting their standards for safety and efficacy.

PURPOSE OF THIS IS/MND

This Initial Study and Negative Declaration were prepared by the JLPUD in order to comply with the California Environmental Quality Act (CEQA) and the requirements of the State Water Resources Control Board (SWRCB).

The purpose of an Initial Study is to determine if a project may have a significant effect on the environment. An environmental impact report must be prepared if it is determined that the project will have a significant effect upon the environment. However, if the lead agency determines that the project will not have a significant effect on the environment, a Negative Declaration may be prepared.

The CEQA Guidelines Section 15070 (California Code of Regulations, Title 14, Section 15000 et. seq. 2009) states that a Negative Declaration shall be prepared for a project when either:

- a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
- b) The Initial Study identifies potentially significant effects, but
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If 15070(b)(1) revisions are adopted, then a Mitigated Negative Declaration is prepared.

PROJECT PURPOSE

The purpose of the Pine Creek Boat Ramp Repair Project (Proposed Project) is to improve the safety and efficacy of the facilities at the Pine Creek Boat Ramp and to bring the facilities into compliance with the Americans with Disabilities Act (ADA).

Every year, each division of the California Department of Parks and Recreation (DPR), submits a list of projects to DBW for improvements to boating-related facilities within state parks. Each list is submitted in order of importance and with a general cost estimate for the improvements. DBW inspects each proposed project, and develops site plans and more detailed cost estimates. This project was submitted by the head superintendent of the Northern Buttes District of DPR.

DBW's inspection of the Pine Creek Boat Ramp site revealed a number of problems. The existing boat ramp is constructed of precast concrete aboveground panels, held up by piles and girders. The girders are sagging, the ramp has cracks and gaps in it, and some of the panels have shifted position. Boat launching year round is not possible because the ramp is too short for launching during periods when water levels in Pine Creek are low. The facility does not include a boarding float (a platform-type structure, located alongside of or near a launching ramp, designed for short term moorage of boats to facilitate pedestrian access to and from boats in the water), which is now proposed to allow boaters easier access on and off their boats at the site. In addition, more than 30-inches of drop-off exists on both sides of the boat ramp at present, posing a safety hazard.

Other elements were found not to be in compliance with ADA standards. The slope of the walkway between the curb at the restroom and the parking lot and lateral slope of the asphalt surface between the restroom and the top of the ramp are higher than current ADA standards.

PROJECT DESCRIPTION

The existing Pine Creek Boat Launch Area is located in western Butte County on Pine Creek, tributary to the Sacramento River (Figure 1). It is a sub-unit of the Bidwell-Sacramento River State Park, owned and operated by the California Department of Parks and Recreation (State Parks) (Figure 2). Due to deterioration of the facilities at the Pine Creek Boat Ramp (described above under *Project Purpose*) and the need to upgrade certain facilities to Americans with Disabilities Act (ADA) standards, DPR has requested DBW to design and construct a replacement boat ramp and to make ancillary improvements at the site.

The existing facilities on the project site include a 23-space parking lot, restroom, three picnic tables with canopies, and a 20-foot wide by 122-foot long boat ramp.

The Proposed Project would involve the following activities:

- Removal of the existing precast panels and beams, and legal disposal of the debris off-site.
- Grading of the site (approximately 10 cubic yards of material moved);

- Removal of 0.06-acres of vegetation on the east and west sides of the ramp;
- Driving of three 12-inch diameter steel pipe piles, and two 16-inch diameter concrete piles;
- Placement of precast concrete panels (approximately 90 cubic yards of concrete) to form the new ramp, which will be expanded from its current dimensions of 20 feet wide and 122 feet long, to the proposed dimensions of 24-feet wide and 142 feet long. The greater length is needed to allow year-round use of the ramp, and the greater width is needed in order to provide room for the boarding float on the ramp, and still provide a 18-foot launch lane;
- Installation of a 6-foot wide boarding float along the full-length of the boat ramp;
- Placement of approximately 200 cubic yards of rip-rap to decrease the drop-offs on both sides of the ramp.
- Construction of a wheelchair-accessible ramp between the bathroom and the top of the boat ramp;
- Replacement of some signage on the bathroom.

The total construction period for the Proposed Project is expected to be 2 months. Equipment used is expected to include: a backhoe; a skidsteer; a crane, fork lift and piling truck; and paving equipment. Pile driving is expected to last 1-2 days.

MINIMIZATION MEASURES

The following measures have been included in the Project Description to avoid or minimize environmental impacts. They will also be included in the construction contract to be let by DBW for the Proposed Project, to ensure that they are adhered to.

General Measures

1. Existing precast concrete panels and beams will be hauled off-site and recycled or disposed of by the contractor according to all relevant laws and regulations. All other construction waste, including vegetation removed, will also be hauled off-site.
2. Contractor shall, at all times, keep the premises free from accumulation of waste materials or rubbish caused by their work. At the completion of the work remove all rubbish, tools, and surplus materials, and leave the job in a broom clean condition.
3. Selective demolition shall be done in accordance with the construction documents. Repair any demolition performed in excess of that required. Return structures and surfaces to the condition prior to commencement of selective demolition. Repair adjacent construction or surfaces, soiled or damaged, by selective demolition work.
4. A location for the contractor's corporation yard will be designated within the site by the state. Contractor is permitted to fence this area to protect offices, stored material and equipment. Contractor is responsible for securing his/her equipment from theft or vandalism.
5. The contractor is responsible for site conditions continually during working hours, including public safety, dust control, and erosion and sediment control.

6. The contractor is financially responsible for the maintenance or repair of offsite street surfaces where damage has been sustained because of the construction traffic.
7. Construction noise shall be in compliance with Department of Parks and Recreation rules and local county noise ordinances. Consult the county for specific restrictions. Construction to occur during daylight hours only.
8. No soils report is provided. The contractor is responsible for determining soil conditions prior to bidding.
9. It is possible that previous activities have obscured surface evidence of cultural resources or that previously undiscovered cultural resources are located on the site. If previously unidentified cultural resources are encountered during earth-moving activities, all construction activity within 100 feet of the resources shall be halted immediately, and the appropriate authorities notified. If suspected human remains are encountered, the County Coroner and the Department of Boating and Waterways should be notified immediately. If prehistoric or historic-era resources are encountered, the Department of Boating and Waterways and a qualified archaeologist should be notified immediately.
10. Temporary wildlife exclusionary fencing (e.g., silt fence) should be installed around work areas during construction.
11. A turbidity curtain will be installed around the entire work area for the boat ramp to provide a physical barrier to any fish, GGS, and other aquatic species attempting to enter the project area, and to prevent sediment input into Pine Creek.

Air Quality Measures

12. Land Clearing/Earth Moving:
 - Water shall be applied by means of truck(s), hoses and/or sprinklers as needed prior to any land clearing or earth movement to minimize dust emission.
 - A water truck (or water hoses and/or sprinklers) shall be on site at all times during ground disturbance activities.
 - Water shall be applied to disturbed areas a minimum of 2 times per day or more as necessary.
 - On-site vehicles limited to a speed which minimizes dust emissions on unpaved roads.
 - Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
 - The telephone number of the BCAQMD shall also be visible to ensure compliance.
13. Visibly Dry Disturbed Soil Surface Areas:
 - All visibly dry disturbed soil surface areas of operation shall be watered to minimize dust emission.
14. Paved Road Track-Out:
 - Existing roads and streets adjacent to the project will be cleaned at least once per day unless conditions warrant a greater frequency.
 - Haul vehicles transporting soil into or out of the property shall be covered.
15. Vehicles Entering/Exiting Construction Area:
 - Vehicles entering or exiting construction area shall travel at a speed which minimizes dust emissions.
16. Employee Vehicles:

- Construction workers shall park in designated parking areas(s) to help reduce dust emissions.
17. Soil Piles:
- Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material may be required to further reduce dust emissions.

Erosion Control Measures

18. All erosion & sediment control BMP's shall be in accordance with:
- a. Caltrans Stormwater Quality Handbook, construction site bmp's manual, latest edition
 - b. Caltrans Stormwater Quality Handbook, Construction Contractors Guide and Specifications, latest edition
19. All work equipment shall be washed at a location off the project site.
20. Straw wattles and silt fences shall be placed in appropriate areas to prevent silt/sediment from entering the creek at all times during construction.
21. Erosion control best management practices (BMP's) shall be installed and maintained during the wet season. Sediment control BMP's shall be installed and maintained all year round.
22. Hydroseed, if utilized, must be placed by September 15. Hydroseed placed during the wet season shall use a secondary erosion protection method such as straw mulch, soil binder or erosion control blankets/mats.
23. During the rainy/wet season, all non active disturbed soil areas must be stabilized with erosion controls within 14 calendar days or prior to forecasted rain event (whichever comes first).
24. Erosion controls devices using monofilament netting will not be permitted anywhere on site.
25. The Contractor is responsible for dust control during all phases of construction. Water or other approved methods shall be used to control windblown dust and particles. Dust and particles shall not leave the construction site. Dust control shall be utilized over all disturbed areas (unless suitably stabilized) regardless of whether active work is underway. The following measures shall be implemented:
- a. Water shall be applied by means of truck(s), hoses and/or sprinklers as needed prior to any land clearing or earth movement to minimize dust emission.
 - b. A water truck (or water hoses and/or sprinklers) shall be on site at all times during ground disturbance activities.
 - c. Water exposed surfaces, graded areas, storage piles, and haul roads a minimum of 2 times per day or more as necessary. All visibly dry disturbed areas of operation shall be watered to minimize dust emission.
 - d. Vehicles entering or exiting construction area shall travel at a speed which minimizes dust emissions.
 - e. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours. The telephone number of the BCAQMD (530-332-9400) shall also be visible to ensure compliance.
 - f. Existing roads and streets adjacent to the project will be cleaned at least once per day unless conditions warrant a greater frequency.
 - g. Minimize the amount of disturbed area, the amount of material actively worked, and the amount of material stockpiled.

- h. Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material may be required to further reduce dust emissions.
 - i. Haul vehicles transporting soil into or out of the property shall be covered.
26. Any seed, straw, or mulch brought into the site should be certified weed-free. Areas of ground disturbance should be monitored for invasive species infestation. If necessary, hand labor or mechanical methods should be used to control exotic and unwanted vegetation.

Biological Protection Measures

VELB - The following measures are taken from the USFWS (1999) conservation guidelines for the VELB and will be implemented to avoid and minimize potential effects of the project on the VELB:

- 27. Fence and flag all elderberry shrubs to be avoided. Provide a minimum setback of at least 20 feet from the drip line of each elderberry plant wherever feasible. In no event should heavy equipment drive within the drip line of elderberry shrubs.
- 28. In lieu of trimming any elderberry branches that may encroach into the parking lot area where heavy equipment will be present, branches shall be pulled back from the work area and secured with twine, rope, or mesh fencing material for the duration of construction activities.
- 29. Construction and maintenance personnel will participate in a USFWS-approved worker environmental awareness-training program explaining the life history of the VELB and the importance of maintaining the barriers to protect the elderberry shrubs. DBW will put up signs every 50 feet along the edge of the avoidance areas with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." These signs should be clearly readable from a distance of 20 feet and must be maintained for the duration of construction.
- 30. Implement dust control measures as described in Minimization Measure #12-17.

GGS - The following measures, specified in the programmatic formal consultation for U.S. Army Corps of Engineers 404 projects with relatively small effects on the giant garter snake (USFWS 2004), will be implemented to protect this species, if the USFWS determines that GGS may occur in the project area.

- 31. All work within potential giant garter snake habitat, including activities within aquatic habitat and activities within 200 feet of supporting upland habitat, will occur between May 1 and October 1 of any year, with exceptions made to extend this window during periods of warm or temperate conditions, subject to the discretion of regulatory agencies.
- 32. Construction and maintenance personnel will participate in a USFWS-approved worker environmental awareness-training program. Under the guidelines of this program, workers shall be informed about the presence of GGS and habitat associated with the species and that unlawful take of the animal or destruction of its habitat is a violation of the Endangered Species Act. Prior to construction activities, a qualified biologist approved by the USFWS shall instruct construction personnel about: (1) the life history of the giant garter snake; (2) the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas, such as rice fields, to the

- species; and (3) the terms and conditions of the biological opinion. Colored photographs of the giant garter snake shall be handed out during the training session for posting on the job site. Proof of this instruction shall be submitted to the USFWS, Sacramento Field Office.
33. No more than 24 hours prior to the commencement of construction activities in giant garter snake habitat, a pre-construction survey will be undertaken by a qualified biologist. The biologist will prepare a field report documenting the monitoring efforts and submit a copy to the USFWS Sacramento Field Office.
 34. The monitoring biologist will be available thereafter on an on-call basis. If a snake is encountered during construction activities, the biologist shall have the authority to halt work until appropriate corrective measures have been implemented or it is determined that the snake shall not be harmed. Giant garter snakes encountered during construction activities shall be allowed to move away from construction activities on their own. Capture and relocation of trapped or injured individuals can only be attempted by personnel or individuals with current USFWS recovery permits pursuant to Section 10(a)1(A) of the federal ESA.
 35. Vegetation clearing will be confined to the minimal area necessary to complete the construction activity.
 36. During construction operations, the number of access routes, number and size of staging areas, and the total area of the proposed project activity will be limited to the minimum necessary. Routes and boundaries will be clearly demarcated. Movement of heavy equipment to and from the project site will be restricted to established roadways to minimize habitat disturbance. Project-related vehicles shall observe a 20-mile-per-hour speed limit within construction areas, except on County roads and on state and federal highways. This is particularly important during periods when the snake may be sunning or moving on roadways. All heavy equipment, vehicles, and supplies will be stored at the designated staging area at the end of each work period.
 37. During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas.
 38. The project proponents shall ensure that any temporary loss of giant garter snake habitat is confined to the project site.
 39. To eliminate an attraction to predators of the snake, all food-related trash items, such as wrappers, cans, bottles, and food scraps, must be disposed of in closed containers and removed at the end of each workday from the entire project site.
 40. All construction debris shall be removed following the completion of construction activities and all disturbed areas shall be restored to pre-project conditions.
 41. Tightly woven fiber netting or similar material shall be used for erosion control and other purposes at the project site to prevent the entanglement of giant garter snakes that may occur with monofilament or jute netting. This limitation shall be communicated to the contractor using special provisions included in the bid solicitation package.

Swainson's Hawk - Standard measures which are applicable to this project include the following:

42. Pre-construction surveys shall be conducted by a qualified biologist to determine whether any active Swainson's hawk nests are located within 0.25 mile of construction activities. These surveys shall be conducted according to the Swainson's Hawk Technical Advisory Committee's (May 31, 2000) methodology or updated methodologies, as approved by CDFG.

43. If breeding Swainson's hawks (i.e., exhibiting nest building or nesting behavior) are identified, no new disturbances (e.g., heavy equipment operation associated with construction) shall occur within 0.25 mile of an active nest during the nesting season or until a qualified biologist has determined that the young have fledged or that the nest is no longer occupied.
44. This non-disturbance distance may be modified on a case-by-case basis (with CDFG approval) if a qualified biological monitor determines, through repeated observations, that the activity is not disruptive to the breeding pair. Any such nests will be monitored on a daily basis to determine whether construction activities are likely to impact nesting birds. Where disturbance to a Swainson's hawk nest cannot be avoided, such disturbance shall be temporarily avoided (i.e., defer construction activities until later in the nesting cycle, such as after July 15th, when the adults are less likely to abandon the nest).
45. If it is determined by the biological monitor that a nesting pair of Swainson's hawks appears to be adversely affected by construction activities (based on behavioral observations), work at this location will stop until the young have fledged or until the biologist determines that certain activities may proceed.

Fish Species – The following measures would protect special-status fish species:

46. Boat ramp demolition and construction shall be confined to the period of June 15 to October 15.
47. A turbidity curtain will be installed around the entire work area, as described in Minimization Measure #11.



Figure 1
Regional Location

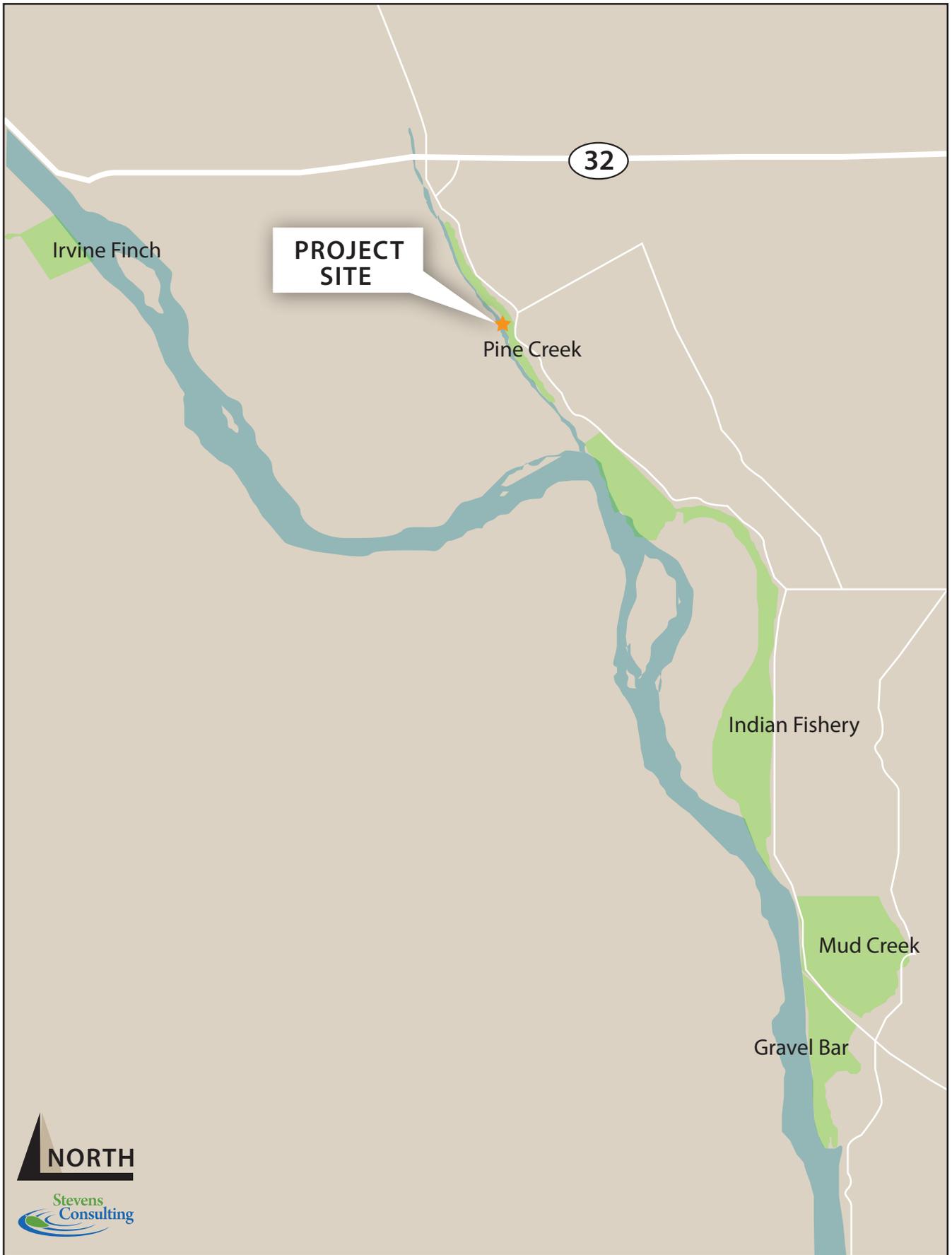


Figure 2
Bidwell-Sacramento River State Park Subunits

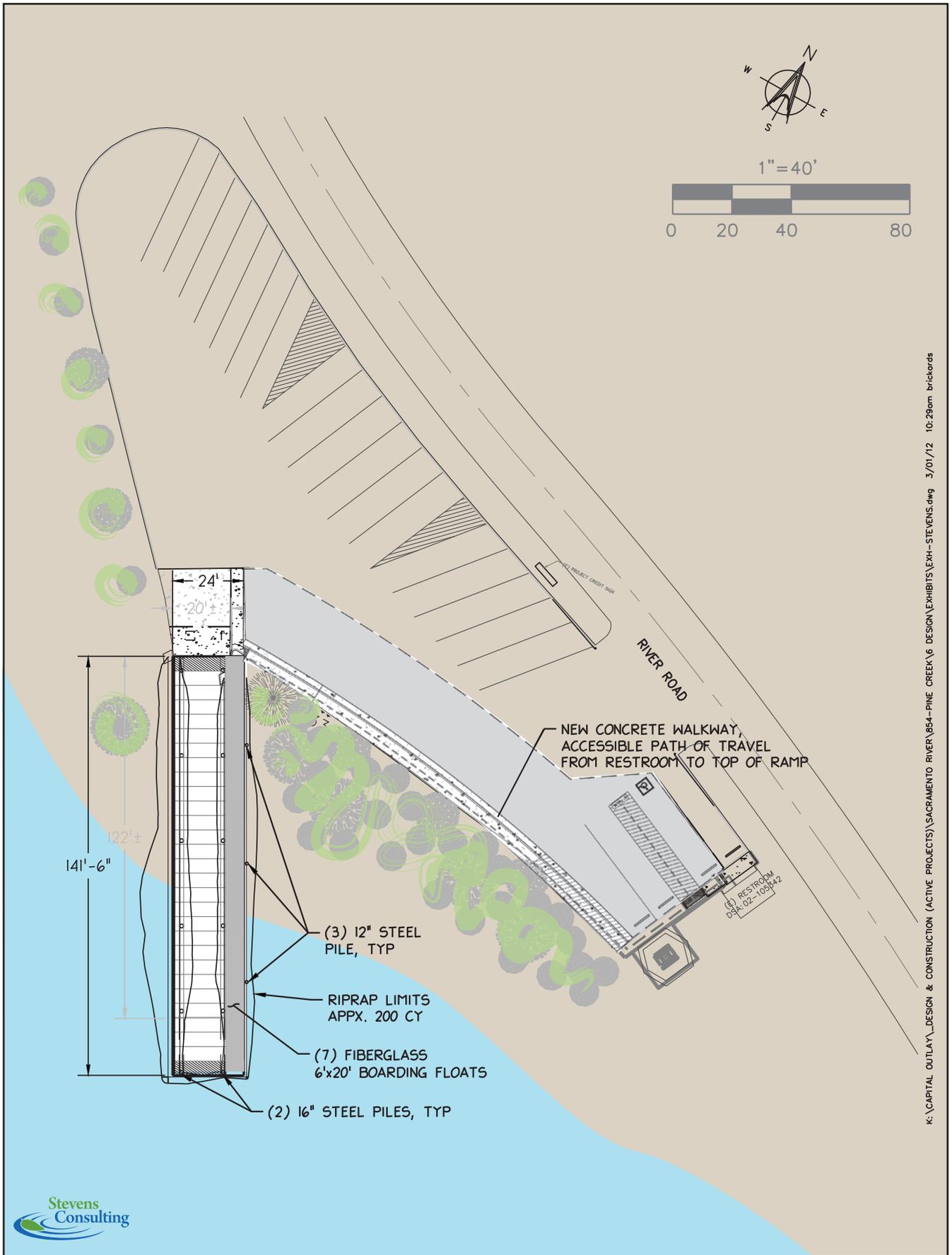


Figure 3
Pine Creek Boat Ramp Repair – Proposed Improvements

CEQA BASELINE

ESTABLISHING THE CEQA BASELINE DATE

Establishing the CEQA baseline for a project is an essential early step in the process of preparing a CEQA compliance document. The baseline date establishes the environmental conditions against which the changes caused by the proposed project will be compared, in order to determine the impacts of the project. According to Section 15125(a) of the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et. seq. 2009), the baseline for assessing impacts in an Environmental Impact Report (EIR) will “normally” be the environmental setting for the project at the time a Notice of Preparation is issued, or if no notice of preparation is published, at the time environmental analysis is commenced. This same guidance is typically used in establishing the baseline for analyses in Initial Studies.

For this project, the CEQA baseline will be set at February 15, 2012, the date that DBW initiated CEQA compliance for this project.

2. PUBLIC INVOLVEMENT

DBW is the lead agency under the California Environmental Quality Act (CEQA) with primary authority for project approval. This IS/MND is being prepared by DBW, who will also be responsible for any mitigation recommended in this report.

This Initial Study/Mitigated Negative Declaration (IS/MND) will be circulated for public and agency review, pursuant to Section 15105(b) of the State CEQA guidelines. DBW will adopt findings concerning all environmental issues raised by the public and responsible agencies.

In addition, the following responsible and trustee agencies may have jurisdiction over some or all of the elements of the proposed project:

Agency	Permit/Approval
California Department of Fish and Game	California Endangered Species Act permit; Lake or Streambed Alteration Agreement
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification
Central Valley Flood Protection Board	Encroachment Permit

3. ENVIRONMENTAL CHECKLIST

The environmental factors checked below could be potentially affected by this project. The checklists and text on the following pages provide detail regarding the potential effects.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality / GHG |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

GENERAL ENVIRONMENTAL CONDITIONS

The Pine Creek Boat Ramp is located in western Butte County, California, approximately 7 miles west of the City of Chico, and 2 miles east of the community of Hamilton City (Figure 1). The site is adjacent to Pine Creek, a small tributary to the Sacramento River, with the confluence located approximately 0.7 miles south of the project location. The general vicinity of the project is flat floodplain, with farmland, riparian habitat, and parkland the predominant surrounding land uses.

3.1 AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			<input checked="" type="checkbox"/>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<input checked="" type="checkbox"/>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The proposed project is located in western Butte County in the northwestern portion of the Sacramento Valley. The topography is gentle and flat, with elevations ranging from 60 to 200 feet above sea level. The level topography contributes to an open and uniform visual character, with natural waterways and canals, and associated levees, providing the most dominant landscape features. Natural vegetation in the area consists of valley grasslands, valley oak woodlands, fresh water marshes, and vernal pools. (DCE 2010)

From the open valley area, the most prominent scenic views are to distant features such as the Sutter Buttes to the southwest, the Coast Ranges to the west, and the county's eastern foothills. there are also many wetlands and riparian areas along the Sacramento River that contribute to an overall visual character of healthy, natural, lush vegetation. There are no officially designated State scenic highways in Butte County. None of the highway segments designated as scenic in the existing Zoning Ordinance or Butte County General Plan 2030 are near to the project site. (DCE 2010)

Light pollution refers to all forms of unwanted light in the night sky, including glare, light trespass, sky glow, and over-lighting. Views of the night sky are an important part of the natural environment, particularly for a rural to semi-rural area, such as Butte County. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species, and often indicate an unnecessarily high level of energy consumption. Current sources of light in Butte County include exterior lighting on residential and commercial buildings, streetlights, and billboards and other signage. Current occurrences of glare are mainly a result of the sun or street lighting reflecting off of large expanses of concrete or other light-colored surfaces, such as parking lots, wide streets, and warehouse rooftops. Glass and other reflective surfaces can also be a source of glare. The Butte County Building Code and Zoning Ordinance regulates light power and brightness, shielding, and sensor controls, and require light fixtures to be designed and sited so as to minimize light pollution, glare, and light trespass into adjoining properties. (DCE 2010)

IMPACT ASSESSMENT

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

Less Than Significant Impact

The Proposed Project is not located near any designated scenic vistas. Further, it only involves the replacement of existing facilities. Therefore, it is not expected to have a substantially adverse effect on a scenic vista, and no mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a site and its surroundings?

No Impact

No scenic resources have been identified in the vicinity of the Proposed Project. Further, the Proposed Project would not result in any changes to the environment that would damage scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant

The Proposed Project would involve the replacement of existing facilities at the site. Although the replacement of the boat ramp would require the removal of approximately 0.06 acres of riparian vegetation, this vegetation will be replaced (onsite or offsite), and would not involve the removal of any trees. Therefore, this impact is considered less than significant, and no mitigation is required.

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

No Impact

The Proposed Project does not include any changes in the lighting at the project site. Therefore, the Proposed Project would not create a new source of substantial light or glare.

3.2 AGRICULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Western Butte County is located in the floodplain of the Sacramento River, an area that is particularly amenable to farming as it provides fertile, alluvial sediments with abundant nutrients. The lands surrounding the Proposed Project, except those that are covered with riparian vegetation, or designated as parkland, are designated as prime farmlands.

Agriculture accounts for 20 percent of Butte County’s work force and is the County’s principal economic base. It is the largest land use in the county as measured in aerial extent. In 1993 agriculture contributed approximately \$276 million directly to the local economy and indirectly an estimated \$1billion indirectly. In 2006 the estimated gross value of agricultural production in Butte County was \$454,212,000. (DPR 2010)

IMPACT ANALYSIS

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

No Impact

The proposed project does not involve any changes in land use. Therefore, it would not convert any farmlands to other uses.

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

No Impact

The land on which the proposed project is located is not zoned for agricultural use, nor is it under a Williamson Act contract.

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

No Impact

The Proposed Project would not involve any changes to the environment that could result in the conversion of farmland to non-agricultural use.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			<input checked="" type="checkbox"/>	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<input checked="" type="checkbox"/>	
c) 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)?			<input checked="" type="checkbox"/>	
d) Expose sensitive receptors to substantial pollutant concentrations?			<input checked="" type="checkbox"/>	
e) Create objectionable odors affecting a substantial number of people?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The proposed project would be located within the Northern Sacramento Valley Air Basin (NSVAB), and would be under the jurisdiction of the Butte County Air Quality Management District (BCAQMD). Summer conditions in the NSVAB are typically characterized by high temperatures and low humidity, with temperatures averaging approximately 90°F during the day and 50°F at night. During the summer months, the prevailing winds are typically from the south. Winter conditions are characterized by occasional rainstorms, interspersed with stagnant and sometimes foggy weather. The daytime average temperature is in the low 50s°F and nighttime temperatures average in the upper 30s°F. During winter, winds predominate from the south, but north winds frequently occur. Rainfall occurs mainly from late October to early May, with an average of 17.2 inches per year, but this amount can vary significantly each year (Butte County, 2010).

Dispersion of local pollutant emissions is predominantly affected by the prevailing wind patterns and inversions that often occur in the NSVAB. Within the NSVAB, two types of inversions can occur. During summer months, sinking air forms a “lid” over the region and confines pollution to a shallow layer near the ground, which can contribute to photochemical smog problems. During winter nights, air near the ground cools while the air aloft remains warm, which can cause localized air pollution “hot spots” near emission sources (Butte County 2010).

REGULATORY SETTING

Federal Clean Air Act

The 1977 Federal Clean Air Act (CAA) required the United States Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for seven criteria air pollutants, including ozone, carbon monoxide, oxides of nitrogen, oxides of sulfur, respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and lead. EPA publishes standards for these pollutants. The EPA has classified air basins (or portions of basins) as either “attainment” or “non-attainment” for each of these criteria air pollutants, based on whether or not monitoring data indicates that the NAAQS have been achieved within the basin.

California Clean Air Act

The California Air Resources Board (ARB) is the state agency responsible for protecting public health and the environment from the harmful effects of air pollution. ARB oversees all air pollution control efforts in California, including the activities of 35 independent local air districts. State law vests ARB with direct authority to regulate pollution from motor vehicles, fuels, and consumer products. Primary responsibility for controlling pollution from business and industry lies with the local air districts. The California Clean Air Act sets and regulates State Ambient Air Quality Standards (SAAQS) for the same criteria pollutants as those listed above under the CAA. The SAAQS are in most cases more stringent than the NAAQS.

Criteria Pollutants

As required by the Clean Air Act, the EPA identifies and sets standards to protect human health and welfare for seven pollutants: ozone, carbon monoxide, PM₁₀, PM_{2.5}, sulfur dioxide, lead, and nitrogen oxide. Because the Butte County is designated as not attaining federal and/or state standards for three of these pollutants, these are described further below.

Ozone (O₃) - Ozone is a pungent, colorless, toxic gas. Close to the earth's surface, it is produced photochemically from hydrocarbons, oxides of nitrogen, and sunlight and is a major component of smog. Ozone causes eye and respiratory irritation, reduces resistance to lung infections, and may aggravate pulmonary conditions in persons with lung disease. Butte County is designated as not attaining federal and state standards for ozone.

Respirable and Fine Particulate Matter (PM₁₀ and PM_{2.5}) - Particulate matter, or PM, is the term for particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Particles can be suspended in the air for long periods of time. Some particles are large or dark enough to be seen as soot or smoke. Others are so small that individually they can only be detected with an electron microscope.

Particles less than 10 micrometers in diameter (PM₁₀) are tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the air sacs in the lungs where they may be deposited, resulting in adverse health effects. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. These solid and liquid particles come in a wide range of sizes.

Sources of fine particles include all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. Other particles may be formed in the air from the chemical change of gases. They are indirectly formed when gases from burning fuels react with sunlight and water vapor. These can result from fuel combustion in motor vehicles, at power plants, and in other industrial processes.

PM₁₀ poses a health concern because it can be inhaled into and accumulate in the respiratory system. PM₁₀ also causes visibility reduction. Particles with diameters between 2.5 and 10 micrometers are referred to as "coarse." Sources of coarse particles include crushing or grinding operations, and dust from paved or unpaved roads. Particles less than 2.5 micrometers in diameter (PM_{2.5}) are referred to as "fine" particles and are believed to pose the greatest health risks. Because of their small size (approximately 1/30th the average width of a human hair), fine particles can lodge deeply into the lungs. Butte County is designated as not attaining state standards for PM₁₀ and PM_{2.5}, as well as not attaining the federal standard for PM_{2.5}.

2009 ATTAINMENT PLAN

The 2009 Air Quality Attainment Plan was created by the air districts within the Northern Sacramento Valley to achieve and maintain healthy air quality throughout the northern air basin. The plan addresses the progress made in implementing the original plan submitted to the ARB in 1991 and has been updated every three years, most recently in 2009. The plan includes the proposed control strategies necessary to attain the California ozone standard at the earliest practicable date.

IMPACT ANALYSIS

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

Less-Than-Significant Impact

The proposed project is consistent with the existing land use designation for the site. Because it does not involve any urban development, it would not increase population, employment, or automobile travel beyond that already contained in local plans and accounted for in the State Implementation Plan (SIP). In addition, the project would not conflict with the proposed control strategies identified in the 2009 Air Quality Attainment Plan nor would it involve any stationary or area-wide emission sources. While construction of the proposed project would generate some equipment use and vehicle trips, this would be short term (roughly 2 months). Over the long term, the proposed project would not change the maximum number of trips to and from the site on a peak day, nor would it change peak day daily boat usage at the site. There could be an increase in use of the boat ramp during the year by allowing more days to effectively use the boat ramp each year; this would result in a minor increase in average daily emissions over the year. As explained above, more use would not change the maximum day usage or daily emissions, and daily emissions of criteria air pollutants are the threshold used by BACQMD. Implementation of the proposed project would therefore not conflict or obstruct implementation of the air quality improvement efforts of the BCAQMD.

b) Violate any air quality standard or contribute substantially to an existing, or projected, air quality violation?

Less-Than-Significant Impact

Compared to existing operations of the boat ramp, operation of the proposed project would allow for boat launching year-round. However, it is assumed that the proposed project would not change the emissions on a maximum use day (from user vehicles and boats) and would result in only a minor increase during the year associated with average daily emissions. For example, the daily emissions associated with 12 additional trips per day would be less than one pound per day (0.35 lb/day) of reactive organic gases (ROG) and less than one pound per day (0.65 lb/day) of nitrogen oxides (NO_x). See Appendix A for details. The BCAQMD's most restrictive daily thresholds for ROG and NO_x are both 25 pounds per day (lb/day). Therefore, operations of the proposed project would be far below the BCAQMD violation threshold and would result in a less-than-significant impact.

Construction of the proposed project would include demolition of the existing boat ramp, limited grading and vegetation removal, installation of the new boat ramp (including driving of piles, placement of concrete panels and rip-rap, and installation of the boarding float), and Americans with Disabilities Act improvements between the existing bathroom and the top of the boat ramp. These construction activities would require the use of a backhoe, a skid-steer, a crane, a forklift, and a pile truck for varying durations over the 2-month construction period. Construction activities would require rip-rap, concrete panels, piles, concrete, asphalt, and other materials to be delivered to the site. Fugitive dust emissions during construction would be generated during ground disturbance activities such as grading and vegetation removal. Equipment exhaust would also be generated from construction worker vehicle trips and from the operations of construction equipment.

The BCAQMD's *CEQA Air Quality Handbook Guidelines for Assessing Air Quality Impacts for Projects Subject to CEQA* (BCAQMD 2008), recommend the quantification of project related construction exhaust emissions for comparison with its significance thresholds. Therefore, the

daily construction exhaust emissions that would be associated with the project have been estimated using the URBEMIS 2007 model (Version 9.2.4) and are presented in Table 1. To estimate emissions, the model uses equipment and vehicle emissions data specific to the Mountain Counties rural setting (as recommended by BCAQMD) obtained from the California Air Resources Board (ARB) OFFROAD and EMFAC emission models.

For the purpose of estimating construction-related emissions, it was assumed that the majority of the building materials would be delivered to the project site during the demolition and grading phases of the project. As shown in Table 1, daily construction emissions associated with construction of the Proposed Project would be less than the BCAQMD Level 1 significance thresholds. Therefore, impacts are considered less than significant.

Table 1 Short-term Construction Exhaust Emissions

Parameter	ROG	NO _x	PM10
Construction Emissions (lb/day)	2.5	20.3	3.0
Level A Significance Thresholds (lb/day)	25	25	82
Significant?	No	No	No

Note: Emissions were estimated using the URBEMIS 2007 air emissions model, see Appendix A for details.

Although construction-related emissions would not exceed the BCAQMD's Level 1 significance thresholds for criteria pollutants, the BCAQMD's *CEQA Air Quality Handbook Guidelines* recommend the implementation of standard mitigation measures for all projects, whether or not significant impacts have been identified. To ensure that construction-related impacts would be less than significant, the BCAQMD-recommended standard construction mitigation measure was included as project 2 Measure #21.

c) 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 threshold for ozone precursors)?

Less-Than-Significant Impact

With the inclusion of the BCAQMD-recommended mitigation measure as project Minimization Measures #12-17, the emissions of pollutants during construction activities would be less than significant, and would not be cumulatively considerable. All emissions that would be associated with project construction would occur during a very short period of time (approximately 2 months). In addition, there would be no long-term increase in daily operational emissions. Therefore, the cumulative impacts that would be associated with the proposed project would be less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact

The proposed project site is in a rural, primarily undeveloped area of Butte County. There are no residences or other sensitive receptors within 1,000 feet of the proposed project site. Therefore, impacts related to exposing sensitive receptors to substantial pollutant concentrations would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

No Impact

The proposed project site is in a rural, primarily undeveloped area of Butte County. There are no residences or other sensitive receptors within 1,000 feet of the proposed project site, and the project is not the type of project (e.g., waste facility, refinery, etc.) that would generate objectionable odors and thereby affect a substantial number of people. Therefore, there would be no impact.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			<input checked="" type="checkbox"/>	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		<input checked="" type="checkbox"/>		
c) 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?		<input checked="" type="checkbox"/>		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			<input checked="" type="checkbox"/>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			<input checked="" type="checkbox"/>	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			<input checked="" type="checkbox"/>	

ENVIRONMENTAL SETTING

In July 2011, Prunuske Chatham, Inc. prepared a Biological Resources Assessment for DBW on the Proposed Project (Prunuske Chatham 2011). Much of the information in this section is taken from that document. Prunuske Chatham, Inc. conducted a field survey of the project site on June 28, 2011. The purpose of the field survey was to characterize biological communities within the site and to determine whether or not suitable habitat for special-status plant and

animal species was present. The potential presence of and impacts on special-status species were determined based on a comparison of existing habitat conditions and the presence of unique habitat features, proximity of the site to reported occurrences, and the geographic range of subject species. The surveys consisted of traversing the site on foot and evaluating all representative habitats within the area of potential impact plus a buffer around this area.

Gibson & Skordal, LLC, did a follow-up biological survey of the project site on March 9, 2012. The purpose of this follow-up survey was to identify the location of all elderberry shrubs within 100 feet of the area to be disturbed (per U.S. Fish and Wildlife Service guidance), and to conduct stem counts for all identified elderberry shrubs. In addition, Gibson & Skordal identified all trees within the area of impact, and measured the trunk diameter at breast height (DBH) of substantial trees. The results of this survey are also presented in this section.

Plant Communities

Three primary plant communities occur within the project site: mixed riparian forest, valley oak riparian forest, and freshwater marsh. These communities overlap to some extent but generally occupy different elevations on the site, with marsh occurring at the creek edge, mixed riparian forest on the moist sections of the creek banks, and valley oak forest on upland portions of the site. All of these habitats are dominated by native species. The mixed riparian forest is the best-developed of the three habitats, with mature trees and a diversity of understory species, and is the dominant vegetation type in the portion of the project area near the boat ramp.

Table 2 below lists plant communities identified on the site, using both the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) and A Manual of California Vegetation (Sawyer et al. 2009). Classification using the Manual of California Vegetation should be considered preliminary, as more detailed study would be needed to confirm these classifications. Sensitivity is based on rarity rankings (CDFG 2010) and inventory priority (CDFG 2011a). A complete list of all plant species observed on the property is provided in Appendix B.

Table 2. Plant Communities Occurring on the Pine Creek Boat Ramp Site

Holland Community Type	Manual of California Vegetation Alliance Type	Sensitivity	CDFG Rank*
Great Valley Valley Oak Riparian Forest	<i>Quercus lobata</i> Woodland Alliance	Yes	G3 S3
Great Valley Mixed Riparian Forest	<i>Acer negundo</i> Forest Alliance	Yes	G5 S2
Coastal and Valley Freshwater Marsh	<i>Schoenoplectus acutus</i> Herbaceous Alliance	Yes	G5 S4

*G indicates conservation priority at the global level, and S refers to the state level. 1 = critically imperiled; 2 = imperiled; 3 = vulnerable; 4 = apparently secure; 5 = secure.

All of the habitats present on the site are considered sensitive based on CDFG rankings and inventory priorities. Mapped occurrences of all three of these habitat types, as well as Great

Valley cottonwood riparian forest and willow scrub, are located in the project area, primarily to the south near the confluence of Pine Creek with the Sacramento River. More extensive, well-developed riparian forest is visible across Pine Creek from the site. All of these riparian communities were historically much more extensive in the Central Valley, but are now threatened due to conversion to agriculture. Great Valley valley oak riparian forest is present in the upper elevations of the site, surrounding the parking and picnic areas. This habitat is dominated by native valley oaks (*Quercus lobata*), most of which are young trees that appear to have been either planted since development of the boat ramp or regenerated naturally in recent decades. A few young Northern California black walnut trees (*Juglans hindsii*) are also present. California grape (*Vitis californica*) grows abundantly on young trees. An understory of nonnative annual grasses is present.

Great Valley mixed riparian forest surrounds the boat ramp on the banks of the creek and is characterized by an intermittent canopy of boxelder (*Acer negundo*), Oregon ash (*Fraxinus latifolia*), red willow (*Salix laevigata*), and sandbar willow (*S. exigua*). A number of blue elderberries (*Sambucus nigra* ssp. *cerulea*) are present just below the parking lot edge; these may be planted. California button willow (*Cephalanthus occidentalis* var. *californicus*) and white stemmed raspberry (*Rubus leucodermis*) are common in the understory. Basket sedge (*Carex barbarae*) is present in the herbaceous layer.

A small area of freshwater marsh is present where the boat ramp meets the waters of Pine Creek. This habitat is characterized by emergent vegetation including common tule (*Schoenoplectus acutus*). In the adjacent aquatic habitat, wetland plants are present including native coontail (*Ceratophyllum demersum*) and two invasive nonnative species, Brazilian waterweed (*Egeria densa*) and floating water primrose (*Ludwigia peploides* ssp. *montevidensis*). These invasive species are not limited to the boat ramp site but appear to be common in adjacent areas of Pine Creek as well.

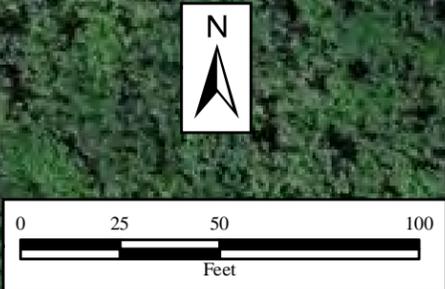
The Gibson & Skordal survey identified six trees in the vicinity of the disturbance area, two Oregon ash (*Fraxinus latifolia*), two valley oaks (*Quercus lobata*), and two box elders (*Acer negundo*) (Figure 4).



Common Name	Species	DBH 1 (inches)	DBH 2 (inches)	DBH 3 (inches)
Oregon Ash	<i>Fraxinus latifolia</i>	20.0	N/A	N/A
Oregon Ash	<i>Fraxinus latifolia</i>	12.5	N/A	N/A
Valley Oak	<i>Quercus lobata</i>	7.0	N/A	N/A
Valley Oak	<i>Quercus lobata</i>	6.0	5.5	5.0
Box Elder	<i>Acer negundo</i>	6.0	N/A	N/A
Box Elder	<i>Acer negundo</i>	6.0	N/A	N/A

Elderberry Shrub	Stem Diameter 1 (inches)	Stem Diameter 2 (inches)	Exit Holes	Riparian
E1	6.5	N/A	No	Yes
E2	7.0	1.25	No	Yes
E3	5.5	N/A	No	Yes
E4	5.0	N/A	No	Yes
E5	12.0	N/A	No	Yes
E6	6.0	N/A	No	Yes
E7	8.0	N/A	No	Yes
E8	5.5	N/A	No	Yes
E9	10.0	N/A	No	Yes
E10	7.0	7.0	No	Yes
E11	8.0	7.0	No	Yes
E12	2.5	N/A	No	Yes
E13	13.0	N/A	No	Yes
E14	11.0	N/A	Yes	Yes
E15	4.0	N/A	No	Yes
E16	7.0	N/A	No	Yes
Sum of All Stem Diameters	133.25			

- Elderberry Shrub
- Oregon Ash
- Box Elder
- Valley Oak
- Proposed Ramp
- Proposed Extent of Riprap
- Turbidity Curtain
- Ordinary High Water Mark
- Anticipated Water Level During Construction



Wildlife Species

The wildlife resources described below are those that would be expected to occur on the site and/or in nearby areas where suitable habitat exists. Although the characteristic assemblages may occur predictably within certain vegetation types, it should be recognized that relatively few wildlife species are restricted to a single habitat, and, indeed, some species may require more than one habitat type. The following discussion includes a general summary of species typically associated with each plant community, based on regional occurrence and field observations. Wildlife species' common names are used in the text because they are unequivocal. The vertebrate wildlife species observed on the site includes: observations included black phoebe, house finch, western kingbird, black-headed grosbeak, snowy egret, American robin, belted kingfisher, American goldfinch, great egret, spotted towhee, and Brewer's blackbird.

In general, riparian areas, wetlands, and river channels such as those occurring within the project site provide nesting opportunities, food, and shelter, and may serve as corridors or refugia during migration for a variety of wildlife species. Birds represent the most abundant and prominent wildlife species in riparian areas. Year-round resident birds likely to occur on the site include Anna's hummingbird, black phoebe, western-scrub jay, yellow-billed magpie, American crow, oak titmouse, bushtit, Bewick's wren, winter wren, American robin, California towhee, spotted towhee, and song sparrow. The most common finch species include house finch and American goldfinch. Additional migratory species that may breed within the area include Swainson's thrush, yellow warbler, common yellowthroat, black-headed grosbeak, yellow-breasted chat, lazuli bunting, western kingbird, and swallows (e.g., tree, cliff, barn, northern rough-winged). Tree-climbing birds such as Nuttall's, downy, and acorn woodpeckers, white-breasted nuthatch, and brown creeper may also frequent the site. Casual winter residents include golden-crowned and ruby-crowned kinglets, varied thrush, and yellow-rumped warbler.

A number of bird species are also very closely tied to the creek itself. Osprey can frequently be seen foraging for fish from above. Herons and egrets forage for fish and other vertebrates in shallow waters. Fish-eating double-crested cormorant and belted kingfisher are also present. Earth embankments are important breeding sites for bank swallows and kingfishers. Riparian forests that are structurally diverse with a healthy understory of low-growing groundcover, midstory shrubs and small trees, a high canopy of trees and vines, and snags are critical for supporting the various habitat needs of the above-mentioned as well as other resident and migratory species.

Suitable foraging and breeding habitat also exists for raptors, including American kestrel and red-shouldered, red-tailed, and Swainson's hawks. Cooper's and sharp-shinned hawks may also utilize the site, especially in winter when they are typically more abundant. Small vertebrates within the habitat are likely to serve as a food source for predatory birds. The larger trees are prime habitat for nesting raptors. Nocturnal avian predators include western screech, great horned, and barn owls. Due to their nocturnal nature and timing of the field survey, no owls were observed on the site. The habitats on the site support a variety of mammals. Isolated habitats free of human disturbance provide escape, cover, and nesting sites for a number of larger mammals, including bobcat and gray fox. The presence of a large number of vertebrate species, such as birds, small mammals, reptiles, and amphibians, may serve as a significant food source for these larger mammals. Some of the most commonly observed mammals within riparian forests include western gray squirrel, dusky-footed woodrat, and northern raccoon. Larger riverine systems, such as Pine Creek and the Sacramento River, support North American beaver. Potential roosting sites for various bat species exist in the

crevices and tree hollows found throughout the forests, and bats may forage throughout the area.

Native oaks found within the site and surrounding forests serve as a significant resource for many wildlife species in the form of both food and shelter. The entire tree from the canopy to the roots is used as shelter, as well as the layer of detritus around the base, which is utilized by a number of amphibians and insects. Acorns are used heavily by acorn woodpeckers, western-scrub jays, and western gray squirrel. Individual trees are also important food storage sites for acorn woodpeckers, which cache acorns for future consumption, particularly in dead and dying oak trees. The site supports a number of old snags suitable for cavity nesting and food storage, but these are outside of the proposed work area. The use of acorns by a number of wildlife species is important for the dispersal and colonization of oaks.

Within the forest floor, woody debris piles and layers of duff provide habitat for amphibians. Locally, common amphibians include California slender salamander, Sierran treefrog, and western and spadefoot toads; however, these species are not restricted to this habitat type. Common reptiles of this community include western skink, western fence lizard, alligator lizard, and gopher, racer, ringneck, sharp-tailed, and garter snakes.

During the field survey, direct (scat) and indirect (tracks and burrows) wildlife observations were limited due to cool and wet conditions; however, observations included black phoebe, house finch, western kingbird, black-headed grosbeak, snowy egret, American robin, belted kingfisher, American goldfinch, great egret, spotted towhee, and Brewer's blackbird.

Fish Species

The most significant wildlife resource within the project site is Pine Creek proper. Within this area, the creek is a meandering, perennial system, with well-developed riparian vegetation along the banks. Pine Creek flows into the Sacramento River just a short distance downstream of the site. Within the Sacramento River watershed, there are nearly 57 species of documented fish. While not all of these species may occur within Pine Creek, the creek does support a number of species including, but not limited to, special-status steelhead, Chinook salmon, and potentially green sturgeon. Additional native species present may include lamprey, California roach, hardhead, Sacramento squawfish, Sacramento sucker, threespine stickleback, and sculpin. Nonnative fish present include American shad, an important sport fish, sunfish, bass, carp, bullhead, catfish, etc.

SPECIAL-STATUS SPECIES

A literature and database search was conducted by Prunuske Chatham to determine the potential occurrence of special-status species within the project site, based on a comparison of existing habitat conditions and the presence of unique habitat features, proximity to reported occurrences, and geographic range of subject species. The search focused on reported occurrences for the Ord Ferry 7.5' USGS quadrangle where the site is located and the eight surrounding quads. General references were also consulted to evaluate the potential for unique biological communities and special-status species. The review included, but was not limited to, the following sources:

- California Department of Fish and Game (CDFG) Natural Diversity Database (CNDDDB) (CDFG 2011a);

- CNDDDB/Spotted Owl Viewer on-line database for the reported sightings of northern spotted owl (CDFG 2011b);
- A Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009);
- Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986);
- California Department of Fish and Game Natural Communities List (CDFG 2010);
- CNPS Inventory of Rare and Endangered Vascular Plants of California on-line inventory (CNPS 2011);
- CalFlora Database, including Consortium of California Herbaria records (CalFlora 2011);
- Natural Resources Conservation Service online soil maps for the project region (NRCS 2011);
- Sacramento U.S. Fish and Wildlife Service (USFWS) Office Species Lists (USFWS 2011); and
- Field guides and general references for birds, mammals, reptiles, amphibians, and invertebrates (e.g., Brown 1997; Jameson and Peeters 2004; Jennings and Hayes 1994; Kays and Wilson 2002; Shapiro and Manolis 2007; Shuford and Gardali 2008; Sibley 2000; Stebbins 2003; Zeiner et al. 1990).

Figure 1 is a map of nearby occurrences of special-status species based on CNDDDB records.

Protected Bird Species

Nesting native bird species are protected under both federal and state regulations. Under the federal Migratory Bird Treaty Act (MBTA), it is unlawful to take, kill, and/or possess migratory birds at any time or in any manner, unless the appropriate permits are obtained. Protections extend to active nests, eggs, and young birds still in the nest. Birds and their nests are also protected under the California Fish and Game Code (§3503 and §3503.5).

Most bird species, with a few specific exceptions, are protected under the MBTA and California Fish and Game Code. Vegetation removal and/or construction activities in areas with suitable nesting habitat during the breeding period, typically mid-March to mid-August in this region (RHJV 2004), could result in nest abandonment or loss of native nesting birds unless appropriate actions are taken (e.g., preconstruction surveys, avoidance, monitoring, etc.). Heron and egret rookeries are also protected under the above-mentioned regulations. In addition, while not formally listed, CDFG considers rookeries to be a sensitive resource.

Special-Status Plants

The background literature review identified the potential presence of a number of special-status plant species within the project area's region. Based on the suitability of habitat within the site and surrounding areas and proximity of recorded sightings, these species were evaluated for potential occurrence within the site. For the special-status plant species that occur in habitat types found within the property and/or that have reported sightings within close proximity to the site, status and life history characteristics and potential for occurrences within the project site are described in Appendix C.

Most of the special-status plants occurring in the region that includes the project area are typically found in vernal pools, alkaline habitats, or upland habitats which are not present on the site. Two species [Brazilian watermeal, (*Wolffia brasiliensis*) and woolly rose mallow (*Hibiscus lasiocarpus* var. *occidentalis*)] are known to occur in freshwater marsh habitat, have documented occurrences within five miles, and were found to have moderate potential to occur on the site. However, neither of these plant species were observed on the site during the field

survey, which occurred during their reported blooming periods. The only special-status species found on the site is northern California black walnut (*Juglans hindsii*). Several young walnut trees occur in the valley oak woodland habitat on the upper portion of the site. These are outside of the potential impact area. In addition, only mature stands of northern California black walnut are considered rare and special-status. Younger trees are thought to have originated from widely naturalized orchard and ornamental plantings (Jensen 2008). No impacts on special-status plants are anticipated.

Special-Status Animals

The background literature review identified the potential presence of a number of special-status or animal species of interest within the project area's region. Based on the suitability of habitat within the site and surrounding areas and proximity of recorded sightings, these species were evaluated for potential occurrence within the site. For the animal species that occur in habitat types found within the site and/or that have reported sightings within close proximity to the site, status and life history characteristics and potential for occurrences within the preserve are described in Appendix D and shown in Figure 4. During the Prunuske Chatham field survey, no special-status animal species were observed. During the background literature review, a number of species were identified as having high potential for occurrence within the project site. These include valley elderberry longhorn beetle, western pond turtle, Swainson's hawk, western yellow-billed cuckoo, osprey, bank swallow, green sturgeon, steelhead, and Chinook salmon. Several species have moderate potential for occurrence on the site (e.g., western spadefoot, giant garter snake, additional bird species, and special-status and common bat species).

The Gibson & Skordal survey identified 16 elderberry bushes within 100-foot of the area of impact (Figure 4). An exit hole potentially created by a VELB was identified on only one of the elderberry bushes, located along the west edge of the parking lot.

Sensitive Aquatic Communities

Sensitive aquatic communities include wetlands and other waters of the U.S. and the state of California. Wetlands and other waters include a variety of both permanent and ephemeral aquatic ecosystems that occur in nearly all continents and climates. Protective regulations and policies have been enacted by a number of government agencies. Wetlands and other waters fall under the jurisdiction of federal and state agencies, including the U.S. Army Corps of Engineers, local Regional Water Quality Control Board, and California Department of Fish and Game. Pine Creek and surrounding aquatic habitats will require consultation with state, federal, and potentially local agencies.

IMPACT ANALYSIS

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

Less Than Significant Impact

VELB. Fifteen elderberry shrubs were identified in the project area. No elderberry shrubs will be removed as part of project construction. Although proposed construction activities will encroach within 100 feet of several elderberry shrubs, DBW has incorporated will implement Minimization Measures #12-17 to minimize dust production and #27-30 to protect elderberry shrubs from direct contact during construction, into the project design, which will protect these shrubs from damage and will reduce impacts to less than significant.

Giant Garter Snake. If individual giant garter snakes are present within Pine Creek, they could be affected during removal of the existing boat ramp or installation of the new ramp. Due to the width of Pine Creek and the presence of heavy riparian cover in the project area, it is unlikely that the giant garter snake (GGS) would occur in the project area. If the USFWS determines that GGS is likely to occur in the project area, DBW has incorporated Minimization Measures #11 (turbidity curtain) and #31-41 (standard GGS protection measures), into the project design, which will reduce any impacts to less than significant.

Swainson's Hawk. Suitable nest trees for the Swainson's hawks are present in the project area. Therefore, the project may affect the Swainson's hawk. No mature tree removal will be required for project construction. Although all work on the project will take place between June and October, after the nesting season, if Swainson's hawks were nesting in the project vicinity, construction activity, including noise, could cause nest abandonment. DBW has incorporated Minimization Measures #42-45 into the project design, which will protect these shrubs from damage and will reduce impacts to less than significant.

Other Bird and Bat Species - Other bird species including the yellow-billed cuckoo, bald eagle, osprey, and bank swallow have been identified as potentially occurring in the project vicinity. DBW will implement Minimization Measures #42-45 for the Swainson's hawk which will also protect these species.

Northwestern Pond Turtle - Pond turtles could be affected when the existing boat ramp is demolished and the new ramp is constructed. DBW will implement Minimization Measures #31-41 for the GGS, which will also protect the northwestern pond turtle.

Fish Species - Fish species potentially occurring in the project area include green sturgeon, Central-Valley DPS steelhead, Central Valley fall/late fall run ESU Chinook salmon, Sacramento River winter-run ESU Chinook salmon, and central valley spring run ESU Chinook salmon. Direct effects on these species could occur during any in-water work involving demolition and construction of the boat ramp. In addition, direct impacts to fish species could occur if excess sedimentation from construction activities enters Pine Creek. DBW will implement Minimization Measures #46-47, incorporated into the project design, which will protect these species and will reduce impacts to less than significant.

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Less Than Significant with Mitigation Incorporated

The Proposed Project would result in the loss of 0.06 acres of riparian habitat adjacent to the southeast edge of the existing boat ramp. This impact is considered significant, and mitigation is required. DBW will obtain a Lake or Streambed Alteration Agreement from DGF prior to initiating work on the Proposed Project. In issuing this agreement, DFG will require mitigation for the loss of riparian habitat, and DBW will purchase 0.06 acres of riparian habitat credits from an authorized mitigation bank serving the project area, or equivalent mitigation. With this mitigation, this impact would be reduced to less than significant.

- c) 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?**

Less Than Significant with Mitigation Incorporated

The Proposed Project would result in the loss of approximately 0.03 acres of Waters of the United States. This is due to the placement of rip-rap within the Ordinary High Water Mark of Pine Creek. There is no vegetation in this area, but this 0.03 acres is included in the loss of 0.06 acres of riparian habitat described above, for which DBW will be providing mitigation. DBW will also obtain a Section 404 Nationwide Permit from USACE prior to initiating work on the Proposed Project. Therefore, no additional mitigation is required.

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

Less Than Significant Impact

The Proposed Project would not directly interfere 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 a native wildlife nursery site.

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

Less Than Significant Impact

The Proposed Project would not result in the removal of any oak trees, and would thus not conflict with the Butte County tree ordinance. It would also not conflict with any other local ordinances.

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

No Impact

The proposed project site is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			<input checked="" type="checkbox"/>	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			<input checked="" type="checkbox"/>	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			<input checked="" type="checkbox"/>	
d) Disturb any human remains, including those interred outside of formal cemeteries?			<input checked="" type="checkbox"/>	

ENVIRONMENTAL SETTING

The information contained in this section is drawn from a cultural resources report prepared by Peak & Associates (Peak & Associates 2012). The Project area lies within the ethnographically known Mechoopda territory. The Mechoopda are a sub group of the Konkow. The Konkow, the neighboring Maidu to the east, and the Nisenan to the south all spoke Maiduan languages belonging to the Penutian superstock. Within the Konkow language, several dialects were spoken. The distribution of these dialectical groups was, in part, along the lower part of the Feather River Canyon, extending up to about the Rich Bar area. Others of the related groups held the Middle and South Fork Feather River drainages, extending westward onto the Sacramento Valley floor, immediately adjoining the lower foothill courses of these streams.

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

The Mechoopda in the Chico area were somewhat more fortunate, thanks largely to John Bidwell, who had employed many native Mechoopda and Konkow in his gold mining operations at nearby Bidwell Bar, shortly after the discovery of gold at Coloma. The Mechoopda Band of Konkow returned with Bidwell to his new residence at Rancho Chico where they were employed as laborers. In general, thanks to Bidwell's protection and employment, the Mechoopda were spared the forced relocation to the Round Valley Reservation.

The Mechoopda Indian Tribe of Chico Rancheria has prepared an excellent, comprehensive overview of their specific tribal heritage. The following section is from Mechoopda Indian Tribe Of Chico Rancheria, A Comprehensive Overview (Mechoopda Indian Tribe of Chico Rancheria, 2007). A summary of the information contained in this document is provided in the Peak & Associates report.

Peak & Associates contacted the Native American Heritage Commission (NAHC) requesting a check of their Sacred Lands files and a list of interested individuals and organizations that may have knowledge of resources in or near the Project site. According to a letter from the NAHC dated February 8, 2012, there are no Sacred Lands on record in or near the Project site.

Peak & Associates sent letters requesting information about known resources within the Project area on February 18, 2012 to: Dennis Ramirez, Chairperson, Mechoopda Indian Tribe of Chico Rancheria; Gary Archuleta, Chairperson, Mooretown Rancheria of Maidu Indians; James Sanders, Tribal Administrator, Mooretown Rancheria of Maidu Indians; Patsy Seek, Chairperson, Konkow Valley Band of Maidu; Mike DeSpain, Director, OEPP, Mechoopda Indian Tribe of Chico Rancheria; and, April Wallace Moore.

Mike DeSpain, Director, OEPP, Mechoopda Indian Tribe of Chico Rancheria replied by letter on February 22, 2012 stating that the Mechoopda Indian Tribe was very concerned about cultural resources in the area and requested that a "funded monitor be present during all ground breaking activities."

Peak & Associates also requested a records search for the Project site by the Northeast Center (NEIC) of the California Historical Resources Information System on August 29, 2011. According to the NEIC's records, no prehistoric or historic period cultural resources have been recorded within the Project, but two prehistoric period village sites have been recorded in the vicinity of the Project. According to the NEIC, there is no record that the Project had been inspected by archeologists. NEIC recommended that the Project be inspected by a qualified archeologist prior to construction.

Neal Neuenschwander, Staff Archeologist with Peak & Associates inspected the project site on February 15, 2012, by means of parallel transects spaced at intervals of approximately five meters. The ground surface, outside of the paved parking lot and areas under water, was visible throughout the Project site due to the minimal presence of ground cover. In an area with periodic inundation, and continuing additions of alluvium, a subsurface inspection offers an invaluable tool to discover what otherwise would likely be obscured (buried) cultural resources. The cut-bank area west of the existing parking lot provided an excellent window into the character of the sediment that lies between the ground surface and Pine Creek and was intensively inspected. The sediment looked to be typical alluvium, and had no evidence of discoloration due to previous cultural activity (midden), or any evidence of buried prehistoric or historic period material (artifacts). Recent refuse was present at the site, but no evidence of previous prehistoric or historic period cultural activities were observed during the inspection.

IMPACT ANALYSIS

a) and b) Cause a substantial adverse change in the significance of a historical resource or an archaeological resource as defined in §15064.5?

Less Than Significant Impact

No historical or archaeological resources were identified during the records search or the site visit. While the surface surveys do not reveal what resources may be buried beneath the ground, the inclusion of project Minimization Measure #9, will ensure that any resources discovered during construction will be protected.

c) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?

Less Than Significant Impact

No paleontological resources were identified during the records search or the site visit. While the surface surveys do not reveal what resources may be buried beneath the ground, the inclusion of project Minimization Measure #9, will ensure that any resources discovered during construction will be protected.

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

Less Than Significant Impact

No evidence of human remains has been identified on the project site during surveys. However, there is always the potential for human remains to be encountered during earthmoving activities associated with construction of the Proposed Project. However, the inclusion of project Minimization Measure #9, will ensure that any human remains discovered during construction will be handled in compliance with all appropriate laws and regulations.

3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</p> <p>ii) Strong seismic ground shaking?</p> <p>iii) Seismic-related ground failure, including liquefaction?</p> <p>iv) Landslides?</p>			<input checked="" type="checkbox"/>	
b) Result in substantial soil erosion or the loss of topsoil?			<input checked="" type="checkbox"/>	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			<input checked="" type="checkbox"/>	
d) 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?			<input checked="" type="checkbox"/>	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Butte County is made up of three distinct geologic areas: the valley region, the foothill region, and the mountain region. The Proposed Project is located in the valley region, which covers approximately 45 percent of the county’s land area and consists predominantly of marine sedimentary rocks and continentally-derived sediments underlain by granitic and metamorphic bedrock. (DC&E Geology, Soils, and Mineral Resources)

In accordance with the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (A-P EFZ), only faults with evidence of historic or Holocene surface fault rupture are considered “active” earthquake faults and zoned on the A-P EFZ maps. Faults with evidence of surface fault rupture within the past 1.6 million years are considered potentially or conditionally active. No active or conditionally active faults are located near the project site. Nevertheless, the California Geological Survey has defined the entire county as a seismic hazard zone. (DC&E Geology, Soils, and Mineral Resources)

Liquefaction is a process in which sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid. Liquefaction can cause the soil beneath a structure to lose strength, which may result in the loss of foundation-bearing capacity. Areas of liquefiable soil can be found on the valley floor, especially near the Sacramento and Feather Rivers and minor tributaries. (DC&E Geology, Soils, and Mineral Resources)

Expansive soils shrink and swell with changes in moisture content as the clay minerals in these soils expand and contract. Expansive soils contain clay minerals that greatly increase in volume when they absorb water and shrink when they dry. When light buildings such as houses and light commercial buildings are placed on expansive soils, foundations may rise each wet season and fall each dry season. The project site is in a portion of the county where the potential for the occurrence of expansive soils is considered low. (DC&E Geology, Soils, and Mineral Resources)

Erosion is a two-step process by which soils and rocks are broken down or fragmented and then transported. The project site is in a portion of the county where the erosion potential is considered slight. (DC&E Geology, Soils, and Mineral Resources)

IMPACT ANALYSIS

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42,**
- Strong seismic ground shaking,**
- Seismic-related ground failure, including liquefaction, and**
- Landslides.**

Less Than Significant Impact

Although all of Butte County is considered a seismic hazard zone, the Proposed Project does not involve the construction of any structures or facilities that could expose people to risk.

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

Less Than Significant Impact

The Proposed Project involves a small amount of grading, which could lead to some erosion. However, the inclusion of project Minimization Measures #18-26 will minimize the potential for erosion. Therefore, this impact is considered less than significant.

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

Less Than Significant Impact

The Proposed Project is located on a soil that may be subject to liquefaction, but the existing piles have been driven deep enough that they are anchored in securely in deeper soils. The proposed new piles will also be driven down deep enough to be securely anchored.

- d) 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?**

Less Than Significant Impact

The project site is located in a portion of the county where the potential for the occurrence of expansive soils is considered low.

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

No Impact

The Proposed Project does not involve any changes to the collection or treatment of wastewater on the project site. See section 3.17: *Utilities and Service Systems* for more information on the on-site wastewater collection system.

3.7 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Gases that trap heat in the atmosphere are referred to as greenhouse gas (GHG) emissions because they capture heat radiated from the sun as it is reflected back into the atmosphere, similar to a greenhouse. The accumulation of GHG emissions has been implicated as a driving force for Global Climate Change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and the impact of human activities that alter the composition of the global atmosphere. Both natural processes and human activities result in the generation of GHG emissions.

The major concern is that increases in GHG emissions are causing Global Climate Change. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, the vast majority of the scientific community now agrees that there is a direct link between increased GHG emissions and long term global temperature increases. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, more drought years, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

In California, GHGs are defined as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃), perfluorocarbons (PFCs), and hydrofluorocarbons. CO₂ is the reference gas for climate change because it gets the most attention and is considered the most important GHG. To account for the warming potential of GHGs, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). The effects of GHG emission sources (i.e., individual projects) are reported in metric tons per year of CO₂e.

IMPACT ANALYSIS

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

Less-than-Significant Impact

The BCAQMD's *CEQA Air Quality Handbook Guidelines* (BCAQMD 2008) does not identify thresholds of significance for GHG emissions. However, several California air districts have identified quantitative significance thresholds for GHG emissions, the most stringent of which has been identified by the Bay Area Air Quality Management District (BAAQMD). For land use development projects, the quantitative threshold is annual operational emissions of more than 1,100 metric tons CO₂e. The BAAQMD has not identified a threshold established for emission of GHGs during project construction. In the absence of a BCAQMD significance threshold for GHG emissions, and for a conservative evaluation, this analysis applies the BAAQMD's threshold for annual operational emissions of 1,100 metric tons of CO₂e to assess project-related construction and operational emissions.

Using the URBEMIS 2007 emissions model and The Climate Registry default emission factors, it was determined that approximately 42 metric tons of CO₂e would be generated during the 2-month construction period. Short-term construction emissions would be substantially less than the BAAQMD significance threshold of 1,100 metric tons; therefore, short-term construction activities would result in an impact that would be less than significant (see Appendix A for details).

Regarding project operations, it is assumed that the proposed project would increase the number of days per year that the boat ramp would be available for use. It is assumed that the site currently generates an average of 12 daily vehicle trips (equal to approximately half of the available parking spaces at the site) that average round trip travel of 25 miles would occur on days when conditions are favorable for boat launching (i.e., high water levels). If, on average, 12 daily trips occurred every day per year, the associated emissions would be approximate 60 CO₂e. It is assumed that the associated boat emissions would generate emissions no more than the vehicle emissions. Therefore, operation of the proposed facility could generate up to 120 CO₂e per year, which would be considerably less than the BAAQMD's significance

threshold of 1,100 metric tons of CO2e per year (see Appendix A for details). It should be noted that this is a very conservative estimate given that the estimate is for all trips to the site, rather than for the new trips generated by the Proposed Project. Therefore, operations of the proposed project would result in a less-than-significant impact.

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

No Impact

The Conservation and Open Space Element of the Butte County General Plan 2030 identifies goals and policies related to reducing GHG emissions; however, none of the goals and policies would be directly applicable to the proposed project. Therefore, the proposed project would not conflict with Butte County identified goals and policies to reduce GHG emissions and there would be no impact.

3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			<input checked="" type="checkbox"/>	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			<input checked="" type="checkbox"/>	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			<input checked="" type="checkbox"/>	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			<input checked="" type="checkbox"/>	
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			<input checked="" type="checkbox"/>	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

No potentially hazardous sites contained on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (California Environmental Protection Agency 2012) are located on the project site or near to it. The closest sites are in the City of Chico.

The nearest airport is Ranchoero Airport, which is approximately 5 miles to the southeast. It is a privately owned general aviation facility. The project site does not fall within the Airport Zone or any of the Compatibility Zones for Ranchoero Airport. The Chico Municipal Airport and the Paradise Airports are located approximately 7 miles and 18 miles away, respectively. (California Department of Parks and Recreation 2010)

IMPACT ANALYSIS

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

Less Than Significant Impact

Hazardous materials used during the construction of the Proposed Project would likely be limited to common petroleum products associated with construction equipment, such as diesel fuel, lubricants, antifreeze, and solvents. However, when properly stored and used, these products and materials do not present a significant hazard. No changes in the use of hazardous materials during operation of the boat ramp are anticipated.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact

As described above in item a), when properly used, the materials used during the construction and operation of the Proposed Project would not create a significant hazard to the public or the environment.

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

Less Than Significant Impact

There are no schools located within the project site. The nearest schools are Emma Wilson Elementary School, located five miles to the west, and Hamilton Elementary School, located approximately 3 miles to the southwest.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact

As stated above, no potentially hazardous sites contained on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (California Environmental

Protection Agency 2012) are located on the project site or near to it. The closest sites are in the City of Chico.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less Than Significant Impact

The Proposed Project is not located within an airport land use plan, or within two miles of any airport. Further, no people would live or work at the project site (except the occasional visit to empty the payment box, trim vegetation, clean the toilets, and collect trash, so the project would not result in a safety hazard.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact

There are no private airstrips in the vicinity of the Proposed Project.

g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact

The Proposed Project would not directly result in any physical changes that would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h) 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?

No Impact

The Proposed Project does not involve the construction of any new residences, so it would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

3.9 HYDROLOGY AND WATER QUALITY

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

c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?			<input checked="" type="checkbox"/>	
d) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?			<input checked="" type="checkbox"/>	
e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			<input checked="" type="checkbox"/>	
f) Otherwise substantially degrade water quality?			<input checked="" type="checkbox"/>	
g) Place housing within a 100-yr. flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				<input checked="" type="checkbox"/>
h) Place within a 100-yr. flood hazard area structures which would impede or redirect flood flows?			<input checked="" type="checkbox"/>	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			<input checked="" type="checkbox"/>	
j) Inundation by seiche, tsunami, or mudflow?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The Proposed Project is located on Pine Creek, a minor tributary to the Sacramento River, within the Sacramento River Basin, as designated by the Central Valley Regional Water Quality Control Board (CVRWQCB). The Sacramento River is a large, dynamic alluvial river that drains the northern portion of the Central Valley (California Department of Parks and Recreation (DPR) 2003a, 2003b). Pine Creek is a small, intermittent stream that drains the northwestern portion of Butte County. Because the Pine Creek watershed gets virtually all of its water from rainfall, and because the project site is located just upstream of the confluence of Pine Creek with the Sacramento River, most of the water in the reach of Pine Creek adjacent to the project site is backwater from the Sacramento River.

The Project Site is located within the designated 100-year floodplain of the Sacramento River. The most current Federal Emergency Management Agency (FEMA) Flood Insurance Map (FIRM) shows that the project site is designated as Zone A: *Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies.* (FEMA Website) The project site has historically flooded under high flows in the Sacramento River, up to the location of the restrooms. The Central Valley Flood Protection Board is responsible for maintaining safe floodways within the Sacramento River watershed. The Proposed Project will be subject to consultation with and a permit from the Central Valley Flood Protection Board (CVFPB).

The CVRWQCB regulates water quality in the region and provides water quality standards and management criteria as required by the Clean Water Act. These standards and criteria are

presented in the Water Quality Control Plan (Basin Plan) for the Central Valley Region (CVRWQCB 1998). No specific information is available regarding the quality of water in Pine Creek.

IMPACT ANALYSIS

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact

The construction of the Proposed Project may contribute the discharge of pollutants, particularly sediment to Pine Creek. The area of land that would be disturbed during construction of the Proposed Project will be much less than one acre, so the preparation of a Stormwater Pollution Prevention Plan (SWPPP) will not be required for the project. However, DBW is required to obtain a Clean Water Act Section 401 Water Quality Certification from the Central Valley Regional Water Quality Control Board in order to obtain a Clean Water Act Section 404 permit from USACE. DBW has included Minimization Measures #18-26 in the project description and will include these same measures in the bid documents for construction of the Proposed Project to that will minimize the discharge of pollutants to Pine Creek. These include the installation of a silt curtain surrounding the in-water work associated with the installation of the new boat ramp, and the implementation of erosion control BMPs. Because DBW will implement these measures and will obtain Water Quality Certification, the construction of the Proposed Project would not violate any water quality standards or waste discharge requirements.

b) 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)?

No Impact

The Proposed Project would not involve the use or replenishment of groundwater resources, so will have no effect on the groundwater basin under the project site.

c) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact

The Proposed Project would not directly alter drainage patterns on the project site. Precipitation on the project site will drain down the ramp as it does now, and no additional land is being covered with impervious surface, so the amount of runoff will not change. The Proposed Project will not change the course of Pine Creek. The construction of the Proposed Project has the potential to temporarily increase erosion on site. However, as discussed above, measures included in the project description and the need to obtain a Section 401 Water Quality Certification will reduce the potential impacts to less than significant.

- d) Substantially alter the existing drainage pattern of the site, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?**

Less Than Significant Impact

As described above, the Proposed Project would not substantially alter the existing drainage pattern of the site nor alter the course of a stream or river.

- e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Less Than Significant Impact

As described above, the Proposed Project would not change stormwater runoff. The construction of the Proposed Project has the potential to temporarily increase erosion on site and to contribute pollutants to Pine Creek. However, as discussed above, Minimization Measures included in the project description and the need to obtain a Section 401 Water Quality Certification will reduce the potential impacts to less than significant. Long-term operation of the Proposed Project will not change the use of the boat ramp, and thus would not change the contribution pollutants from the site.

- f) Otherwise substantially degrade water quality?**

Less Than Significant Impact

The Proposed Project would not contribute pollutants by any other mechanism, other than those described above. Thus, it would not otherwise substantially degrade water quality.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact

The Proposed Project is located within the 100-year floodplain of the Sacramento River, but it does not involve the construction of any housing or other habitable structures.

- h) Place within a 100-yr. flood hazard area structures which would impeded or redirect flood flows?**

Less Than Significant Impact

The Proposed Project will result in approximately 230 cubic yards of additional concrete ramp in Pine Creek, which will displace the same amount of water and may change the flood capacity of Pine Creek by an extremely small amount. However, Ayers Associates prepared a report for the Department of Parks and Recreation (DPR) (Ayers Associates 2009) to analyze the hydraulic effects of proposed changes to a parcel of land within the Bidwell-Sacramento River State Park, south of the Pine Creek Boat Ramp. The changes that were analyzed included converting an existing walnut orchard into a recreational area consisting of grass meadows, sparse walnut trees, picnic tables, a restroom and a gravel parking lot; and five native plant restoration zones. This analysis, and the IS/ND prepared for the project by DPR (DPR 2010), concluded that there would not be a significant change in the flow path of the river or over the floodplains as a result of implementing these changes, nor of flood elevations. It is reasonable

to assume that the much smaller changes anticipated under the Proposed Project would also not result in significant changes in river flows or flood elevations.

i) 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?

Less Than Significant Impact

The Proposed Project would not substantially change the flood characteristics of the project site or its surroundings. Neither does it involve the construction of structures in the floodplain that could be damaged by flood flows.

j) Inundation by seiche, tsunami, or mudflow?

No Impact

The proposed project is located far from the coast and from the mountains, so it would not be subject to inundation by seiche, tsunami, or mudflow. Further, the site is designed to withstand flood flows, as it is periodically subjected to them.

3.10 LAND USE AND PLANNING

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

ENVIRONMENTAL SETTING

The Proposed Project is located in Butte County on land owned by the California Department of Parks and Recreation. This land does not have zoning or general plan designations, but is set aside for open space and recreation uses. Surrounding land uses include agricultural fields to the east and northwest, open space to the west, north, and south. The Area west of Pine Creek Landing is owned by CDFG as part of the Pine Creek unit of the Sacramento River Wildlife Area. Also west of Pine Creek Landing, north of the CDFG property are other public lands, including the Pine Creek Unit of the Sacramento River National Wildlife Refuge (USFWS) and Reclamation Board property (managed by the Department of Water Resources). (EDAW 2003)

IMPACT ANALYSIS

a) Physically divide an established community?

No Impact

The Proposed Project is not in the vicinity of a populated area, and would not result in any changes in land use, or other changes to the environment that would physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact

The Proposed Project would not involve any changes to land use, and is not subject to the land use authority of Butte County, so it would not conflict with any applicable land use plans, policies or regulations. It involves the replacement of existing facilities, and is thus consistent with current uses.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact

The Proposed Project is not within the geographic boundaries of any habitat conservation plans or natural community conservation plans.

3.11 MINERAL RESOURCES

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

ENVIRONMENTAL SETTING

There are currently 20 mines with permits to operate in Butte County. The State Geologist has not yet mapped the mineral resources of Butte County, so an overall assessment of the mineral resources in Butte County is not available. The county's predominant mining products are aggregate resources and stone. Aggregate resources, such as sand and gravel, are used extensively in all types of construction, including residential, commercial, industrial, roads and

highways, dams, and bridges. Gold is also mined in Butte County. The main form of gold mining in Butte County has been placer mining. There are no permitted placer mines in Butte County, but suction dredge mining, regulated by the Department of Fish and Game, occurs within the county's creeks and rivers. (DC&E 2010)

IMPACT ANALYSIS

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

No Impact

No mineral resources have been identified at the project site. Further, the Proposed Project would not change the availability of or access to any mineral resources.

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

No Impact

No locally important mineral resources have been identified at the project site. Further, the Proposed Project would not change the availability of or access to any mineral resources.

3.12 NOISE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<input checked="" type="checkbox"/>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<input checked="" type="checkbox"/>	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located in a somewhat remote rural area. The predominant sources of noise external to the site are traffic along River Road, and occasional use of agricultural machinery on adjacent lands. The boat ramp itself is a source of noise from vehicles accessing the site and from the boats as they are launched.

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. (DC&E 2010)

No noise-sensitive land uses exist within the vicinity of the project site, as it is surrounded by open space and agricultural uses.

The Health and Safety Element of the Butte County General Plan 2030 (Butte County Development Services 2010) contains the following measure to minimize the noise effects of construction projects:

HS-P1.9 The following standard construction noise control measures shall be required at construction sites in order to minimize construction noise impacts:

- *Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.*
- *Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.*
- *Utilize quiet air compressors and other stationary noise-generating equipment where appropriate technology exists and is feasible.*

IMPACT ANALYSIS

a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinances, or applicable standards of other agencies?

Less Than Significant Impact

The construction associated with the Proposed Project would result in a temporary increase in noise, lasting approximately two months. Noise would be generated by the delivery of materials to the site, and the construction of the new boat ramp and ancillary facilities, expected to take approximately 2 months. Perhaps the most noise would be created by the use of a crane/pile driver to set the new piles in place (expected to take one or two days). This construction would be limited in scope and duration, and Butte County has not established noise standards applicable to the Proposed Project. Further, per project Minimization Measure #7, construction would be limited to daylight hours. Therefore, this construction would not expose persons to noise levels in excess of general plan or noise ordinances. The long-term use of the boat ramp is not expected to change as a result of implementing the Proposed Project, as the replacement of facilities would not increase the capacity of the boat ramp. Therefore, this impact is considered less than significant.

b) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact

The driving of piles, which would last no more than two days, would generate some groundborne vibrations. However, there are no sensitive receptors in the vicinity of the Proposed Project, so this impact is considered less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact

The lengthening of the boat ramp would increase the number of days that the ramp could be used, and would therefore result in minor increases in long-term ambient noise levels at the project site. However, because no sensitive receptors are near to the project site, and because peak usage of the site is not expected to increase as a result of the Proposed Project, this impact is considered less than significant.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact

As described above under a), construction of the Proposed Project would result in a temporary increase in noise levels, and as described above under c), the operation of the project would result in a small increase in ambient noise. However, because the construction-related increase would be short in duration and limited in scope, because the operational increases would be very small, because there are no sensitive noise receptors in the vicinity of the Proposed Project, and because DBW has include Minimization Measure #7 in the Project Description, this impact is considered less than significant.

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

No Impact

The project site is not located within an airport land use plan, nor within two miles of any airport.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact

No private airstrips are located near the Proposed Project, and no people would live or work at the project site, so no people would be exposed to excessive noise.

3.13 POPULATION AND HOUSING

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

ENVIRONMENTAL SETTING

According to California Department of Finance (DOF) data, the population of Butte County, including the incorporated municipalities, was approximately 220,700 people in January 2009. The 2009 population reflects an 8.3 percent increase over 2000 State population estimates. The majority of these residents, approximately 136,800 people, live in the incorporated municipalities. The balance of these residents, approximately 83,900 people, live in the county's unincorporated areas. (DC&E 2010)

Also according to DOF data, there are approximately 37,000 dwelling units in unincorporated Butte County in 2009, with an overall 9 percent vacancy rate. This represents almost a 10 percent reduction from the number of housing units in 2000, which results from annexation of these units into incorporated jurisdictions, and a slight increase in the vacancy rate in 2000. There are approximately 2.47 persons per household (PPH) in unincorporated Butte County in 2009, which is somewhat higher than that for the whole county, which is 2.33 PPH. (DC&E 2010)

IMPACT ANALYSIS

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

No Impact

The Proposed Project would not have any effects on population growth, as it would not involve any activities related to the creation of residences or employment opportunities.

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

No Impact

The Proposed Project would not involve the displacement of any existing housing, as there is no housing on the project site.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact

The Proposed Project would not involve the displacement of any people, as there are no people living on the project site.

3.14 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</p> <p style="padding-left: 40px;">Fire protection?</p> <p style="padding-left: 40px;">Police protection?</p> <p style="padding-left: 40px;">Schools?</p> <p style="padding-left: 40px;">Parks?</p> <p style="padding-left: 40px;">Other public facilities?</p>				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

DPR Rangers assigned to Bidwell-Sacramento River State Park are Peace Officer Standards and Training (POST) certified Law Enforcement Officers. Currently, these Rangers are stationed in the park and patrol this area on a regular basis. In Butte County, the elected Sheriff is ultimately responsible for the safety of the people residing in, or visiting, the County. Similar to the fire protection services described above, the Butte County Sheriff’s Office (BCSO) has established mutual aid agreements with the California Highway Patrol (CHP) and municipal police departments, including the Chico Police Department (CPD). If the State Park Rangers require assistance at the project site, Butte County Sheriff and CHP officers will assist State Park Rangers. (DPR 2010)

The Butte County Fire Department (BCFD) and the California Department of Forestry and Fire Protection (CAL FIRE) provide fire and emergency services to the entire population within unincorporated portions of the county. Since 1931, the County has contracted with CAL FIRE to provide staffing to the BCFD through an annual cooperative agreement. Under the terms of this agreement, the County funds CAL FIRE professional command, firefighting, and administrative staff to operate the BCFD. Through this arrangement, CAL FIRE and the BCFD function together as a fully consolidated fire protection agency. The Hamilton City Volunteer Fire District can respond to fire emergencies at the Park within minutes (EDAW 2003).

The Proposed Project is located within the Chico Unified School District with Emma Wilson Elementary School (approximately 4 miles east), Chico Junior High School (approximately 6 miles east), and Chico High School (approximately 5 miles east). The project site is also in close proximity to Hamilton Union High School District in Hamilton City, approximately 4 miles to the northwest. (DPR 2010)

The project site is a subunit of the Bidwell-Sacramento River State Park.

IMPACT ANALYSIS

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, or other public facilities?**

No Impact

The Proposed Project would not directly change any land uses, create any housing, or increase population levels. It would, therefore, not increase the need for any public services.

3.15 RECREATION

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

ENVIRONMENTAL SETTING

Recreational activities available at the Pine Creek Boat Launching Facility include boating (includes motor- boating and kayaking/canoeing), fishing, picnicking, hiking/walking, and nature viewing. The Pine Creek Boat Launching Facility is one facility within the Pine Creek Boat Launch Area subunit, within the larger Bidwell-Sacramento River State Park (Figure 2), which includes four other subunits. They include the Irvine Finch River Access, which contains: a boat launch facilities for motor boats, kayaks, canoes, inner tubes; fishing; picnicking; and en-route camping. The Indian Fishery sub-unit includes facilities for picnicking, hiking, nature viewing, bank fishing, and interpretation and education, and the recently-added Brayton parcel, on which habitat restoration activities are planned to begin during spring or summer 2012. The recently-

purchased Mud Creek and Gravel Bar sub-units have not yet been developed. Attendance at the Bidwell-Sacramento River State Park is estimated at 88,780 in 2009, 60,472 in 2010, with a 15 year average of 90,198. (Fehling pers. comm.)

IMPACT ANALYSIS

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

No Impact

The Proposed Project involves the replacement and upgrading of the existing boat ramp to improve safety, and minor improvements to bring the facilities up to code with respect to Americans with Disabilities Act access requirements. It would not involve any increases in the capacity of facilities or any changes to land use that would generate an increase in demand for recreational facilities, either on-site or at other facilities.

b) 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?

Less Than Significant Impact

The Proposed Project does involve the construction of recreational facilities. However, none of the environmental impacts of the Proposed Project, which are examined in this document, are expected to be significant and unavoidable.

3.16 TRANSPORTATION AND TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			<input checked="" type="checkbox"/>	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			<input checked="" type="checkbox"/>	
c) 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?				<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?			<input checked="" type="checkbox"/>	

f) Result in inadequate parking capacity?				<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The Proposed Project is located in western Butte County. Access to the site is available from River Road (also known as Sutter Avenue), which is a two-lane north-south rural roadway running along the east side of the Sacramento River from SR 32 to the north, to Ord Ferry Road to the south. No traffic counts are available for River Road, which is an indication that traffic levels are light.

Regional access to the site is available from I-5 via SR 32 to the west, and from SR 99 to SR 32 to the east, in the City of Chico. SR 32 is a minor two-lane conventional highway in the vicinity of the Proposed Project. The segment of SR 32 between the Glenn County line and Meridian Road has peak hour traffic volumes of approximately 1300 vehicles in each direction.

The nearest airport is Ranchoero Airport, which is approximately 5 miles to the southeast. It is a privately owned general aviation facility. The project site does not fall within the Airport Zone or any of the Compatibility Zones for Ranchoero Airport. The Chico Municipal Airport and the Paradise Airports are located approximately 7 miles and 18 miles away, respectively. (California Department of Parks and Recreation 2010)

Butte County Transit (B-Line) provides service within the City of Chico as well as several other communities within Butte County. No transit service is available to the project site.

IMPACT ANALYSIS

- a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**

Less Than Significant Impact

The Proposed Project would be expected to generate a small amount of additional traffic during the construction of the project, though this would be more than offset by the fact that the facilities would be closed during construction, so traffic associated with use of the facilities would not occur. A small long-term increase in traffic volumes at the site is expected. While no changes to the capacity of the boat ramp, and no increase in parking at the site are included in the Proposed Project, peak usage of the site is not expected to occur. However, a small increase in the number of days when the site would be used is expected, because the ramp is will be lengthened. However, this increase is expected to be small, and will be limited by the amount of available parking, so this increase is expected to be less than significant.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact

The Proposed Project would not generate a substantial amount of additional traffic to the site. There would be a slight increase in traffic associated with construction at the site, but that would be offset by the fact that the site would be closed to recreationists during the construction period. A small long-term change in traffic generated by the site is expected, because the site would be useable for more days during the year, but usage could not be more than current peak usage (due to limitations in available parking). Because area roadways do not currently experience congestion (CALTRANS 2010), the small increase in traffic is not expected to lead to exceedance of any level of service standards.

c) 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?

No Impact

The Proposed Project would not directly result in any changes to air travel, as it would not involve any activities that would generate or change the demand for air travel.

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

No Impact

The Proposed Project would not directly involve the design, redesign, or alteration of any roadway facilities and would not increase any hazards.

e) Result in inadequate emergency access?

Less Than Significant Impact

Operation of the Proposed Project would not directly involve any changes to land use, or any alterations to the roadway system and thus would not affect emergency access. Construction of the Proposed Project could affect emergency access on River Road, during times when materials are being moved to and from the site, but this is expected to occur over a very short period of time, and access to River Road from other directions would continue to be available.

f) Result in inadequate parking capacity?

No Impact

The Proposed Project does not directly involve any changes to land use, and thus would not have any affect on the demand or supply of parking. To a large extent, the use of Proposed Project facilities is limited by the availability of parking spaces. The Proposed Project would not involve any changes to parking.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact

The Proposed Project would not directly have any affect on alternative transportation modes, as it would not create any long-term affects any public roadways, bicycle facilities, or transit facilities, nor alter the demand for any of these facilities.

3.17 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<input checked="" type="checkbox"/>	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				<input checked="" type="checkbox"/>
e) 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?			<input checked="" type="checkbox"/>	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			<input checked="" type="checkbox"/>	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			<input checked="" type="checkbox"/>	

ENVIRONMENTAL SETTING

Wastewater Collection, Treatment and Disposal. The California Department of Parks and Recreation manages the project site, including wastewater. Wastewater generated at the portable toilets at the project site is collected in holding tanks and is periodically pumped out and disposed of at offsite locations.

Water Supply. Potable water is not provided at the project site.

Solid Waste Collection and Disposal. The County of Butte operates the Neal Road Landfill, located is located at 1023 Neal Road in Paradise. The only solid waste generated by the project site is waste collected in on-site garbage cans. Refuse from these cans is collected by DPR staff and hauled to a dumpster in another part of the park. From there, it is collected by Waste Management, under contract to DPR, and hauled to an approved offsite location.

IMPACT ANALYSIS

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact

Wastewater is not treated at the site, but is pumped from the holding tanks and hauled offsite, where it is treated. The Proposed Project would not result in any changes to wastewater collection, treatment, or disposal activities. Thus, it would not cause the exceedance of any wastewater treatment requirements.

b) 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?

Less Than Significant Impact

The Proposed Project would generate a small amount of additional wastewater at the project site, as use of the site would only increase a small amount due to the ramp lengthening. This increase would be so small that no additional wastewater treatment capacity would be needed.

c) 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?

No Impact

Stormwater flows at the project site are not collected, but flow from paved areas down the boat ramp to Pine Creek. No changes to the drainage at the site are included in the Proposed Project.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or, are new or expanded entitlements needed?

No Impact

No potable water is provided at the project site, nor is the provision of potable water a part of the Proposed Project.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it had adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact

The Proposed Project is expected to result in a very small increase in usage of project facilities due to the boat ramp lengthening, and thus would result in a very small increase in the generation of wastewater at the project site.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact

Solid waste will be generated by construction of the Proposed Project, the bulk of which will be the existing concrete beams and panels comprising the boat ramp. DBW has included in the

project description a requirement that these concrete beams and panels be hauled off site and recycled or disposed of according to all applicable laws and regulations by the contractor. This requirement will be included in the bid specifications developed by DBW for contractors bidding on the construction of project facilities. The bid will also specify that the selected contractor properly dispose of all other construction debris and materials in an offsite location. Operation of the Proposed Project is expected to result in an increase in the number of days that the boat ramp could be used. Therefore, a very small increase in the generation of solid waste at the project site is expected. Because the amount of additional waste is very small in relation to the amount generated by the entire park, much less the entire region, this impact is considered less than significant.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact

As described above, the construction of the Proposed Project would generate a small amount of solid waste. Per Minimization Measure 1, DBW will ensure that this waste is disposed of according to all applicable federal, state, and local statutes and regulations. Operation of the proposed project would not generate any additional solid waste.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have 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?		<input checked="" type="checkbox"/>		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			<input checked="" type="checkbox"/>	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			<input checked="" type="checkbox"/>	

- a) **Does the project have 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant with Mitigation Incorporated

The Proposed Project has the potential to result in impacts on special-status species such as the VELB, GGS, Swainson's Hawk, other bird and bat species, and several fish species. In addition, the construction of the Proposed Project will result in the permanent loss of a small amount of riparian habitat, and the temporary loss of a smaller amount of wetland habitat. However, DBW has incorporated Minimization Measures #10, 11, and 18-47 to reduce impacts to special-status species to less than significant, and has adopted measure to mitigate for the loss of habitat. With these minimization and mitigation measures, this impact would be less than significant.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Less Than Significant Impact

Most of the land in the vicinity of the Proposed Project is in public ownership, by the Department of Parks and Recreation, Department of Fish and Game, Department of Water Resources, and U.S. Fish and Wildlife Services (see further discussion above under *Land Use*). These lands have been put under public ownership to protect them for open space, recreation, and habitat protection purposes. The only known projects in the vicinity of the Proposed Project are some recreational improvements and habitat restoration project being undertaken by the Department of Parks and Recreation. These project would have a net benefit for biological resources. Therefore, the Proposed Project would not contribute to a cumulatively considerable impact on the environment.

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

Less Than Significant Impact

The Proposed Project does not include any changes to the physical environment that would have substantial adverse effects on human beings. In fact, the improvements provided to the boat ramp and ancillary facilities will improve access to the site for disabled people, and safety of boat ramp users.

4. DETERMINATION

DETERMINATION:

On the basis of this initial evaluation:

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

Prepared by:

Craig D. Stevens

4/13/12

Craig Stevens
Stevens Consulting

Date

Reviewed by:

Brian Rickards

4/13/12

Brian Rickards
California Department of Boating and Waterways

Date

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6. LIST OF PREPARERS

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Appendices

Appendix A
Air Quality and Greenhouse Gas Generation Calculations

URBEMIS Combined Annual
URBEMIS Combined Winter
Greenhouse Gas Emission Calculations

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\MEC\MEC\Miller Environmental Consultants\Pine Creek Boat Ramp\Pine Creek Boat Ramp 03-11-12.urb924

Project Name: Pine Creek Boat Ramp Project

Project Location: Mountain Counties Air Basin

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (tons/year unmitigated)	0.03	0.22	0.26	0.00	0.01	0.01	0.02	0.00	0.01	0.01	46.15

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.06	0.09	0.78	0.00	0.09	0.02	62.18

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.06	0.09	0.78	0.00	0.09	0.02	62.18

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Asphalt 10/26/2012-10/26/2012	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18

Phase Assumptions

Phase: Demolition 8/27/2012 - 8/31/2012 - Default Demolition

Building Volume Total (cubic feet): 5000

Building Volume Daily (cubic feet): 5000

On Road Truck Travel (VMT): 69.44

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 9/3/2012 - 9/10/2012 - Default Fine Site Grading

Total Acres Disturbed: 0.25

Maximum Daily Acreage Disturbed: 0.13

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 35

Off-Road Equipment:

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 10/26/2012 - 10/26/2012 - Paving

Acres to be Paved: 0.25

Off-Road Equipment:

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4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/11/2012 - 10/25/2012 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

Phase: Building Construction 9/12/2012 - 9/18/2012 - Pile Driving

Off-Road Equipment:

1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Boat Ramp Rec Area	0.06	0.09	0.78	0.00	0.09	0.02	62.18
TOTALS (tons/year, unmitigated)	0.06	0.09	0.78	0.00	0.09	0.02	62.18

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Boat Ramp Rec Area		12.00	acres	1.00	12.00	300.00
					12.00	300.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.2	98.2	0.6
Light Truck < 3750 lbs	31.9	2.9	88.5	8.6
Light Truck 3751-5750 lbs	22.7	1.0	98.5	0.5
Med Truck 5751-8500 lbs	41.7	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	68.0	32.0
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	41.7	58.3
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	57.8	42.2	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	5.0	80.0	15.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	25.0	25.0	25.0	25.0	25.0	25.0
Rural Trip Length (miles)	25.0	25.0	25.0	25.0	25.0	25.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Boat Ramp Rec Area				2.0	1.0	97.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\MEC\MEC\Miller Environmental Consultants\Pine Creek Boat Ramp\Pine Creek Boat Ramp 03-11-12.urb924

Project Name: Pine Creek Boat Ramp Project

Project Location: Mountain Counties Air Basin

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2012 TOTALS (lbs/day unmitigated)	2.51	20.35	24.53	0.03	2.61	0.90	2.98	0.55	0.83	0.91	5,033.76

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.35	0.65	4.01	0.00	0.52	0.10	298.46

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.35	0.65	4.01	0.00	0.52	0.10	298.46

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 8/27/2012-8/31/2012	1.19	10.27	6.23	0.00	2.12	0.51	2.62	0.44	0.47	0.91	1,384.89
Active Days: 5											
Demolition 08/27/2012-08/31/2012	1.19	10.27	6.23	0.00	2.12	0.51	2.62	0.44	0.47	0.91	1,384.89
Fugitive Dust	0.00	0.00	0.00	0.00	2.10	0.00	2.10	0.44	0.00	0.44	0.00
Demo Off Road Diesel	1.03	8.62	4.02	0.00	0.00	0.45	0.45	0.00	0.41	0.41	985.05
Demo On Road Diesel	0.11	1.55	0.55	0.00	0.01	0.06	0.07	0.00	0.05	0.06	279.58
Demo Worker Trips	0.05	0.10	1.67	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.25
Time Slice 9/3/2012-9/10/2012	0.84	4.85	5.14	0.00	2.61	0.36	2.98	0.55	0.34	0.88	681.09
Active Days: 6											
Fine Grading 09/03/2012-09/10/2012	0.84	4.85	5.14	0.00	2.61	0.36	2.98	0.55	0.34	0.88	681.09
Fine Grading Dust	0.00	0.00	0.00	0.00	2.60	0.00	2.60	0.54	0.00	0.54	0.00
Fine Grading Off Road Diesel	0.73	3.97	3.19	0.00	0.00	0.33	0.33	0.00	0.31	0.31	419.94
Fine Grading On Road Diesel	0.06	0.78	0.28	0.00	0.00	0.03	0.04	0.00	0.03	0.03	140.91
Fine Grading Worker Trips	0.05	0.10	1.67	0.00	0.01	0.00	0.01	0.00	0.00	0.00	120.25
Time Slice 9/11/2012-9/11/2012	1.00	8.69	11.67	0.01	0.06	0.35	0.41	0.02	0.32	0.34	1,930.46
Active Days: 1											
Building 09/11/2012-10/25/2012	1.00	8.69	11.67	0.01	0.06	0.35	0.41	0.02	0.32	0.34	1,930.46
Building Off Road Diesel	0.44	3.95	1.74	0.00	0.00	0.17	0.17	0.00	0.15	0.15	467.83
Building Vendor Trips	0.36	4.39	3.82	0.01	0.04	0.17	0.21	0.01	0.16	0.17	1,022.64
Building Worker Trips	0.19	0.35	6.12	0.00	0.02	0.01	0.03	0.01	0.01	0.02	439.99

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Time Slice 9/12/2012-9/18/2012	2.29	<u>20.35</u>	<u>24.53</u>	<u>0.03</u>	0.12	0.76	0.87	0.04	0.70	0.74	<u>5,033.76</u>
Active Days: 5											
Building 09/11/2012-10/25/2012	1.00	8.69	11.67	0.01	0.06	0.35	0.41	0.02	0.32	0.34	1,930.46
Building Off Road Diesel	0.44	3.95	1.74	0.00	0.00	0.17	0.17	0.00	0.15	0.15	467.83
Building Vendor Trips	0.36	4.39	3.82	0.01	0.04	0.17	0.21	0.01	0.16	0.17	1,022.64
Building Worker Trips	0.19	0.35	6.12	0.00	0.02	0.01	0.03	0.01	0.01	0.02	439.99
Building 09/12/2012-09/18/2012	1.29	11.66	12.86	0.01	0.06	0.41	0.47	0.02	0.38	0.40	3,103.30
Building Off Road Diesel	0.73	6.92	2.92	0.00	0.00	0.23	0.23	0.00	0.21	0.21	1,640.66
Building Vendor Trips	0.36	4.39	3.82	0.01	0.04	0.17	0.21	0.01	0.16	0.17	1,022.64
Building Worker Trips	0.19	0.35	6.12	0.00	0.02	0.01	0.03	0.01	0.01	0.02	439.99
Time Slice 9/19/2012-10/25/2012	1.00	8.69	11.67	0.01	0.06	0.35	0.41	0.02	0.32	0.34	1,930.46
Active Days: 27											
Building 09/11/2012-10/25/2012	1.00	8.69	11.67	0.01	0.06	0.35	0.41	0.02	0.32	0.34	1,930.46
Building Off Road Diesel	0.44	3.95	1.74	0.00	0.00	0.17	0.17	0.00	0.15	0.15	467.83
Building Vendor Trips	0.36	4.39	3.82	0.01	0.04	0.17	0.21	0.01	0.16	0.17	1,022.64
Building Worker Trips	0.19	0.35	6.12	0.00	0.02	0.01	0.03	0.01	0.01	0.02	439.99
Time Slice 10/26/2012-10/26/2012	<u>2.51</u>	13.85	11.88	0.01	0.05	<u>0.90</u>	0.95	0.02	<u>0.83</u>	0.84	2,068.33
Active Days: 1											
Asphalt 10/26/2012-10/26/2012	2.51	13.85	11.88	0.01	0.05	0.90	0.95	0.02	0.83	0.84	2,068.33
Paving Off-Gas	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.30	7.92	4.88	0.00	0.00	0.67	0.67	0.00	0.62	0.62	692.70
Paving On Road Diesel	0.40	5.64	1.99	0.01	0.04	0.22	0.25	0.01	0.20	0.21	1,014.89
Paving Worker Trips	0.16	0.29	5.02	0.00	0.02	0.01	0.03	0.01	0.01	0.01	360.74

Phase Assumptions

Phase: Demolition 8/27/2012 - 8/31/2012 - Default Demolition

Building Volume Total (cubic feet): 5000

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Building Volume Daily (cubic feet): 5000

On Road Truck Travel (VMT): 69.44

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 9/3/2012 - 9/10/2012 - Default Fine Site Grading

Total Acres Disturbed: 0.25

Maximum Daily Acreage Disturbed: 0.13

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 35

Off-Road Equipment:

1 Skid Steer Loaders (44 hp) operating at a 0.55 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Paving 10/26/2012 - 10/26/2012 - Paving

Acres to be Paved: 0.25

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 9/11/2012 - 10/25/2012 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

1 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

Phase: Building Construction 9/12/2012 - 9/18/2012 - Pile Driving

Off-Road Equipment:

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1 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 8 hours per day

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Boat Ramp Rec Area	0.35	0.65	4.01	0.00	0.52	0.10	298.46
TOTALS (lbs/day, unmitigated)	0.35	0.65	4.01	0.00	0.52	0.10	298.46

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Boat Ramp Rec Area		12.00	acres	1.00	12.00	300.00
					12.00	300.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.2	98.2	0.6
Light Truck < 3750 lbs	31.9	2.9	88.5	8.6

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Truck 3751-5750 lbs	22.7	1.0	98.5	0.5
Med Truck 5751-8500 lbs	41.7	1.1	97.8	1.1
Lite-Heavy Truck 8501-10,000 lbs	2.5	0.0	68.0	32.0
Lite-Heavy Truck 10,001-14,000 lbs	1.2	0.0	41.7	58.3
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	57.8	42.2	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	5.0	80.0	15.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	25.0	25.0	25.0	25.0	25.0	25.0
Rural Trip Length (miles)	25.0	25.0	25.0	25.0	25.0	25.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Boat Ramp Rec Area				2.0	1.0	97.0

Greenhouse Gas (GHG) Emissions Calculations

Project Name: Pine Creek Boat Ramp Project

Operational Emissions

Vehicle and Boat Emissions

	Annual CO2 Emissions		
	pounds (lbs.)	Tons	Metric Tons
URBEMIS2007 Vehicle Emissions	124,360	62	56
Boat Emissions*			56
Total Emissions (vehicle + boat)			113

*It is assumed that boat emissions would be no more than the associated vehical emissions

Total Annual Operational GHG Emissions

	Metric Tons CO2	Metric Tons CH4	Metric Tons N2O	Metric Tons CO2e
Operation CO2	113	0.016003624	0.021778127	119.6320374

Total Annual Construction GHG Emissions

	Annual CO2 Emissions		
	pounds (lbs.)	Tons	Metric Tons
URBEMIS2007 Construction Emissions	92,300	46	42

	Metric Tons CO2	Metric Tons CH4	Metric Tons N2O	Metric Tons CO2e
Construction CO2	42	0.00237832	0.001066143	42.23690529

Notes:

Global Warming Potential for CH4 = 23; GWP for N2O = 296.

Gasoline emission of GHG

547.0416 g CO2/mile	Based on URBEMIS output (300 miles; 362 pounds)
0.0776 g CH4/mile	(CCAR, 2012; EPA Tier 0 for light duty trucks)
0.1056 g NO2/mile	(CCAR, 2012; EPA Tier 0 for light duty trucks)
CH4 emissions =	0.000142 ratio of CH4 emission to CO2 Emissions
N2O emissions =	0.000193 ratio of N2O emission to CO2 Emissions

Diesel emission of GHG (CCAR, 2009)

10210 g CO2/gal	(CCAR, 2012; Table 13.1)
0.58 g CH4/gal	(CCAR, 2012; Table 13.7)
0.26 g NO2/gal	(CCAR, 2012; Table 13.7)
CH4 emissions =	0.000057 ratio of CH4 emission to CO2 Emissions
N2O emissions =	0.000025 ratio of N2O emission to CO2 Emissions

References:

The Climate Registry Default Emission Factors - 2012

(<http://www.theclimateregistry.org/downloads/2012/01/2012-Climate-Registry-Default-Emissions-Factors.pdf>)

Appendix B
Plant Species Observed

Table 1. Plant Species Observed, Pine Creek Boat Ramp Site, June 2011

Latin Name	Common Name	Native (N) or Introduced (I)
<i>Acer negundo</i>	boxelder	N
<i>Baccharis pilularis</i>	coyote brush	N
<i>Carex barbarae</i>	basket sedge	N
<i>Cephalanthus occidentalis</i> var. <i>californicus</i>	California button willow	N
<i>Ceratophyllum demersum</i>	coontail	N
<i>Cichorium intybus</i>	chicory	I
<i>Cynodon dactylon</i>	Bermuda grass	I
<i>Cyperus eragrostis</i>	umbrella sedge	N
<i>Egeria densa</i> *	Brazilian waterweed	I
<i>Fraxinus latifolia</i>	Oregon ash	N
<i>Juglans hindsii</i>	Northern California black walnut	N; CNPS List 1B.1
<i>Lactuca serriola</i>	prickly lettuce	I
<i>Ludwigia peploides</i> ssp. <i>montevidensis</i> *	floating water primrose	I
<i>Paspalum dilatatum</i>	dallisgrass	I
<i>Quercus lobata</i>	valley oak	N
<i>Rosa californica</i>	California rose	N
<i>Rubus leucodermis</i>	white stemmed raspberry	N
<i>Rumex crispus</i>	curly dock	I
<i>Salix exigua</i>	sandbar willow	N
<i>Salix laevigata</i>	red willow	N
<i>Sambucus nigra</i> ssp. <i>cerulea</i>	blue elderberry	N
<i>Schoenoplectus acutus</i>	common tule	N
<i>Toxicodendron diversilobum</i>	western poison oak	N
<i>Vitis californica</i>	California wild grape	N

*Invasive species.

Appendix C
Special-Status Plant Species Considered in the Project Evaluation

**Table 2. Special-Status Plant Species Considered in the Evaluation of the Project
Based on the Background Literature Review and Field Surveys**

Common Name	Scientific Name	Listing Status* (Federal/State/ CNPS)	Life Form, Blooming Period, and General Habitat	Potential for Occurrence within the Project Site and Local Observations
Ferris' milk-vetch	<i>Astragalus tener var. ferrisiae</i>	--/--/List 1B.1	Annual herb. Blooms April-May. Vernal mesic meadows and seeps, subalkaline flats in grassland. 2-75 m.	Low. Historic, extirpated occurrence documented within 5 miles. Marginally suitable habitat present but species not observed.
round-leaved filaree	<i>California macrophylla</i>	--/--/List 1B.1	Annual herb. Blooms March-May. Clay soils in woodland, grassland. 15-1200 m.	Low. No occurrences documented within 5 miles. Marginally suitable habitat present but species not observed. Impacts are unlikely.
recurved larkspur	<i>Delphinium recurvatum</i>	--/--/List 1B.2	Perennial herb. Blooms March-June. Alkaline habitats in chenopod scrub, woodland and grassland.	Low. No occurrences documented within 5 miles. No suitable habitat present and species not observed. Impacts are unlikely.
Norris' beard moss	<i>Didymodon norrisii</i>	--/--/List 2.2	Moss. Intermittently mesic, rocky habitat in woodland and lower montane coniferous forest. 600-1973 m.	Low. No occurrences documented within 5 miles. Marginally suitable habitat present but species not observed. Impacts are unlikely.
Butte County fritillary	<i>Fritillaria eastwoodiae</i>	--/--/List 3.2	Perennial bulbiferous herb. Blooms March-June. Chaparral, woodland, openings in lower montane coniferous forest. Sometimes serpentine. 50-1500 m.	Low. No occurrences documented within 5 miles. Marginally suitable habitat present but species not observed. Impacts are unlikely.
woolly rose-mallow	<i>Hibiscus lasiocarpus var. occidentalis</i>	--/--/List 1B.2	Perennial rhizomatous herb. Blooms June-September. Freshwater marshes and swamps. 0-120 m.	Moderate. Reported occurrence within 5 miles and potentially suitable habitat present, but species not observed. Impacts are unlikely.
Northern California black walnut	<i>Juglans hindsii</i>	--/--/List 1B.1	Deciduous tree. Blooms April-May. Riparian forest and woodland. 0-440 m. Generally only mature stands are considered rare and special-status; younger trees are thought to have naturalized from orchard stock or ornamental plantings.	Species present, but no mature stands present. Several young walnut trees are present near the picnic area but these are outside of the proposed impact area. Impacts are unlikely.
Red Bluff dwarf rush	<i>Juncus leiospermus var. leiospermus</i>	--/--/List 1B.1	Annual herb. Blooms March-May. Vernal mesic habitat in chaparral and woodland. 35-1020 m.	Low. No occurrences documented within 5 miles. Marginally suitable habitat present but species not observed. Impacts are unlikely.

**Table 2. Special-Status Plant Species Considered in the Evaluation of the Project
Based on the Background Literature Review and Field Surveys**

Common Name	Scientific Name	Listing Status* (Federal/State/ CNPS)	Life Form, Blooming Period, and General Habitat	Potential for Occurrence within the Project Site and Local Observations
Butte County meadowfoam	<i>Limnanthes floccosa</i> <i>ssp. californica</i>	FE/CE/List 1B.1	Annual herb. Blooms March-May. Vernal pools, mesic grassland. 46-930 m.	Low. No occurrences documented within 5 miles. No vernal pool habitat on site. Species not observed, but survey conducted outside of blooming period. No typically associated species present. Impacts are unlikely.
woolly meadowfoam	<i>Limnanthes floccosa</i> <i>ssp. floccosa</i>	--/--/List 4.2	Annual herb. Blooms March-June. Vernally mesic habitat in chaparral, woodland, grassland and vernal pools. 60-1335 m.	Low. No occurrences documented within 5 miles. Marginally suitable habitat present but species not observed. Impacts are unlikely.
California beaked- rush	<i>Rhynchospora</i> <i>californica</i>	--/--/List 1B.1	Perennial rhizomatous herb. Blooms May-July. Bogs and fens, lower montane coniferous forest, seeps, freshwater marshes and swamps. Typically freshwater seeps and open marshy areas. 45-1010 m.	Low. No occurrences documented within 5 miles. Small areas of marginally suitable habitat present along creek edge but species not observed. Impacts are unlikely.
slender-leaved pondweed	<i>Stuckenia filiformis</i>	--/--/List 2.2	Perennial rhizomatous herb. Blooms May-July. Shallow freshwater marshes and swamps. 300-2150 m.	Low. No occurrences documented within 5 miles. Small areas of marginally suitable habitat present along creek edge but species not observed. Impacts are unlikely.
Brazilian watermeal	<i>Wolffia brasiliensis</i>	--/--/List 2.3	Perennial herb. Blooms April- December. Shallow freshwater marshes and swamps. 30-100 m.	Moderate. Reported occurrence within 5 miles (Bidwell Park boat ramp site) and suitable habitat present, but species not observed. Impacts are unlikely.

*Listing Status Codes:

Federal:

FE - Listed as endangered (in danger of extinction)

FT - Listed as threatened (likely to become endangered within the foreseeable future)

State of California (State):

SE - Listed as endangered

ST - Listed as threatened

SR - Listed as rare

CNPS:

1A - Believed to be extirpated.

1B - Rare or endangered in California and elsewhere

2 - Rare or endangered in California, more common elsewhere

3 - Plants for which we need more information

Suffixes:

.1 Seriously endangered in California

.2 Fairly endangered in California

.3 Not very endangered in California

Appendix D
Special-Status Animals or Species of Concern Considered in the
Project Evaluation

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Invertebrates				
Antioch Dunes anthicid beetle	<i>Anthicus antiochensis</i>	--/--	A small "antlike flower beetle." Occupies interior sand dune and sand bars. Known along Sacramento and Feather Rivers, also Antioch Dune. Active mostly at night scavenging on dead insects. Adults overwinter and lay eggs in the spring.	Not present. Suitable habitat not present within the project site.
Sacramento anthicid beetle	<i>Anthicus sacramento</i>	--/--	A small antlike beetle. Occupies interior sand dunes, sand bars, and found in dredge spoil heaps. Known to occur along Sacramento, San Joaquin, and Feather Rivers. Similar life history to <i>A. antiochensis</i> . Active mostly at night scavenging on dead insects. Adults overwinter and lay eggs in the spring.	Not present. Suitable habitat not present within the project site.
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE/--	A small ½ to 1-inch crustacean. Occupies cool-water vernal pools with moderate turbidity. Fairy shrimp cysts (eggs) can withstand extensive periods of dry conditions, cold, and heat. Eggs hatch after pools begin to fill; however, they can survive several years without water. Known from eight populations.	Not present. Suitable habitat not present within the project site.
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT/--	A small ½ to 1-inch crustacean. Occurs in a variety of vernal pool habitats from small to large pools; however, most common in smaller pools. First identified in 1990. Fairy shrimp cysts (eggs) can withstand extensive periods of dry conditions, cold, and heat. Eggs hatch after pools begin to fill; however, they can survive several years without water. Known from the Central Valley and southern California and two pools in the "Agate Desert" in Oregon.	Not present. Suitable habitat not present within the project site.
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT/--	An elongate beetle with red-orange coloration, four distinct spots, known for long antennae. Males average ½ to 1-inch, females slightly larger ¾ to 1-inch. Typically found on or close to host plant elderberry (<i>Sambucus</i> sp.) in riparian woodlands. Adults active March to June. Larva hatch and burrow into elderberry stems. Occurs throughout the Central Valley, CA.	High. Suitable habitat is present within the project site. Surveys for longhorn beetles could not confirm presence. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
vernal pool tadpole shrimp	<i>Lepidurus packardi</i>	FE/--	A small, up to 2-inch, crustacean. Occurs in a variety of vernal pools with clear to highly turbid water. Pool size can range from small to large. Tadpole shrimp cysts (eggs) can withstand extensive periods of dry conditions, cold, and heat. Eggs hatch after pools begin to fill. Adults feed on organic material and other invertebrates. Known to occur throughout Central Valley; however, distribution is patchy.	Not present. Suitable habitat not present within the project site.
Amphibians				
California red-legged frog	<i>Rana aurora draytonii</i>	FT/SSC	Breeding habitat includes marshes, streams, lakes, reservoirs, ponds, and other water sources with plant cover. Breeding occurs in deep, slow-moving waters with dense, shrubby, or emergent vegetation. Breeds November through April depending on location. Eggs hatch after 6 to 14 days and attain metamorphosis after 4 to 5 months. During the non-breeding season, California red-legged frogs can remain at the breeding site (in the presence or absence of water) or move into surrounding non-breeding habitats.	Low. There are no documented occurrences for this species within close proximity to the site. The nearest reported occurrence for this species is approximately 20 miles from the site. Suitable breeding habitat is absent due to the prevalence of fish. Foraging habitat is present; however, suitable breeding habitat is not present within close proximity to the site. Impacts are unlikely.
western spadefoot	<i>Spea hammondi</i>	--/SSC	A small 1 ½ to 2 ½-inch toad. Occupies mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Requires open areas with sandy or gravelly soils. Species is completely terrestrial, only found near water during the breeding season. Breeds from January through May in temporary pools or quiet streams without bullfrogs, fish, and crayfish. Eggs hatch after 3 to 4 days on average. Tadpoles transform in 4 to 11 weeks. Transformation is depended on food and water availability. Both juveniles and adults are nocturnal.	Moderate. There are no documented occurrences for this species within close proximity to the site. The nearest reported occurrence for this species is approximately 7 miles to the east. However, the site is within the range of this species. Suitable breeding habitat is absent due to the prevalence of fish and other predatory species. However, suitable upland habitat is present if adjacent areas support breeding. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Reptiles				
western pond turtle	<i>Emys marmorata</i>	--/SSC	Size varies from 3.5 to 7.5 inches. Found in or near permanent or semi-permanent water sources (e.g., ponds, lakes, rivers, streams) with suitable basking sites and underwater retreats. Eggs are laid in shallow holes dug by the female from April through August. Eggs hatch in late summer or fall. In northern California, hatchlings remain buried until the following spring.	High. There are no documented occurrences for this species within close proximity to the site. The nearest reported occurrence for this species is approximately 4 miles to the southeast. However, suitable foraging and basking habitat is present and adjacent areas may support breeding. Precautionary measures should be in place to avoid impacts.
giant garter snake	<i>Thamnophis gigas</i>	FT/ST	A large snake, up to 63-inches in length. Feeds on fish, tadpoles, and frogs. Active season from early-spring through mid-fall. Uses burrows and soil crevices above flood elevations in winter. Breeds March to April and gives live birth from late-July to early September. Inhabits agricultural wetlands and other waterways (irrigation and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands) in the Central Valley.	Low to moderate. There are no documented occurrences for this species within close proximity to the site, the nearest reported occurrence for this species is approximately 4 miles to the southeast. The site provides only marginally habitat; the riparian corridor is extremely dense and does not provide open basking sites. This species is typically absent from larger rivers. However, precautionary measures should be in place to avoid impacts.
Birds				
tricolored blackbird	<i>Agelaius tricolor</i>	--/SSC (nesting colony)	Colonial-nesting bird in fields, pastures, and wetlands. Nests in tules, cattails, and to a lesser degree willow and brambles. Breeding occurs from mid-April into late July. Typically forage on the ground in large flocks. Year-round resident throughout the Central Valley; nomadic transients in fall and winter.	Low. There are no documented occurrences for this species within close proximity to the site. The nearest reported occurrence for this species is approximately 7 miles to the east. Marginally suitable breeding habitat is present within the project site; however, it is unlikely to support larger colonies of nesting birds. Blackbirds may forage within the area. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
great egret	<i>Ardea alba</i>	--/--	Occur in marshes, ponds, shores, and mudflats, feeding primarily on fish, but also taking smaller animals. Nest in isolated pairs or colonies. Nests tend to be located in tall trees or shrubs.	Present. A great egret was observed adjacent to the project site during the field survey. Suitable breeding habitat is not present within the work area. Egrets may use the site as year-round foraging habitat; however, establishment of a rookery is unlikely given the size of the existing trees. Egrets may nest within adjacent areas. Precautionary measures should be in place to avoid impacts.
great blue heron	<i>Ardea herodias</i>	--/--	Feed primarily in saline and freshwater habitats. Their diet is comprised primarily of fish, but they will also take smaller animals. Colonial nests are built in large trees or snags, often in association with great egrets.	High. Great blue herons may occur within the project site. Suitable breeding habitat is not present within the immediate work area. However, herons may use the site as year-round foraging habitat. Establishment of a rookery is unlikely given the size of the existing trees. Herons may nest within adjacent areas. Precautionary measures should be in place to avoid impacts.
burrowing owl	<i>Athene cunicularia</i>	--/SSC (burrowing and some wintering sites)	A small, ground-dwelling species of grasslands, prairies, rolling hills, and ranchlands. They are active both day and night and can frequently be seen standing at burrow entrances during the day. They are subterranean nesters and utilize abandoned burrows of ground squirrels and other mammals. They feed on a variety of prey items, including ground insects and small vertebrates.	Not Present. Suitable habitat is not present within the project site. The nearest reported occurrence for this species is approximately 5 miles to the east in non-riparian habitat. Impacts are unlikely.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Swainson's hawk	<i>Buteo swainsoni</i>	--/ST	Predatory hawk of open country. Forages for voles, mice, ground squirrels, small birds, and large insects by diving to the ground. Occupies grasslands, open fields, oak savannah, croplands, and pastures. Nests constructed in solitary trees in open country. Breeding range includes the Central Valley.	High. There are a number of documented occurrences for this species within 3 miles of the site along the Sacramento River. Suitable breeding habitat is absent from the immediate work area; however, hawks may use surrounding areas for foraging and breeding. Precautionary measures should be in place to avoid impacts.
western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	Candidate/SE (nesting)	A rare summer resident of valley foothill and desert riparian woodlands. Requires extensive thickets with low growing understory vegetation adjacent to water. Open cup nest constructed on horizontal branch from 2 to 25 feet off the ground. Breeds from June to July departing for South America in late August to early September. Feeds primarily on insects, but will also consume frogs, lizards, and fruit. Cuckoos have declined from former range due to a loss of riparian habitat.	High. The project site is just upstream of a documented occurrence for this species near the confluence with the Sacramento River. The observation is from 1987; however, the site provides suitable breeding and foraging habitat. Precautionary measures should be in place to avoid impacts.
bald eagle	<i>Haliaeetus leucocephalus</i>	Delisted/SE and FP	Coastal and inland waterways including rivers, lakes, seashores. Feeds primarily on fish and waterfowl. Nests in large trees near water. Breeds from February through July. Average clutch size is 2. Eggs are incubated for up to 36 days.	Moderate. There are no documented occurrences for this species within close proximity to the site. The nearest reported occurrence for this species is approximately 10 miles to the east. Bald eagles may occur within the project site. Suitable breeding habitat is not present within the immediate project area. However, eagles may use the site as year-round foraging habitat. Establishment of a nesting site is unlikely given the size of the existing trees. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
California black rail	<i>Laterallus jamaicensis coturniculus</i>	--/SSC and FP	An elusive and seldom seen marsh bird. Occurs in tidal saltwater marshes dominated by pickleweed, cordgrass, and bulrush, and low-elevation freshwater marshes. Primarily occurs in marshlands around San Francisco Estuary and recently discovered (1994) in Sierra foothills. Constructs woven cup nest near ground. Consumes insects, seeds, and small crustaceans.	Not present. Suitable habitat not present within the project site.
osprey	<i>Pandion haliaetus</i>	--/WL (nesting)	Occupies lakes, reservoirs, rivers, estuaries, and open seacoast. Forages exclusively for fish. Nests on exposed treetops or other man made structures from 10 to 250 feet above ground. Year-round resident in Butte County.	High. There is a documented occurrences for this species within close proximity to the site, the nearest reported occurrence for this species is approximately 1 mile to the west. Osprey may occur within the project site. Suitable breeding habitat is not present within the immediate work area. However, ospreys may use the site as year-round foraging habitat and could nest in adjacent trees. Precautionary measures should be in place to avoid impacts.
bank swallow	<i>Riparia riparia</i>	--/ST (nesting)	Nests on earthen banks and bluffs, especially along riverbanks up to 5 feet into the bank. Nests colonially from mid-April to mid-August. Forages over a variety of habitats for flying insects. Drinks water from flight. An uncommon breeder along the Central Valley.	High. There is a documented occurrence for this species within close proximity to the site, approximately 1 mile to the south. Bank swallows may occur within the project site. Suitable breeding habitat is not present within the immediate work area due to a lack of vertical banks. However, swallows may use the site as foraging habitat. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Mammals				
pallid bat	<i>Antrozous pallidus</i>	--/SSC	Grassland, shrubland, forest, and woodland habitats at low elevations up through mixed coniferous forests. A social species forming small colonies. Roosting sites include caves, mines, crevices, buildings, and hollow trees during day, more open sites used at night. At low elevations, locally common in California.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.
western mastiff bat	<i>Eumops perotis californicus</i>	--/SSC	The largest native bat in the U.S., occupying open, semi-arid to arid habitats with cliff faces, high buildings, trees and tunnels for roosting. Typically occurs in conifer and deciduous woodlands, coastal scrub, grasslands, palm oases, chaparral, desert scrub, and urban environments. Typically non-migratory and occurs throughout southern California but ranges north to Butte County.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.
silver-haired bat	<i>Lasionycteris noctivagans</i>	--/--	Primarily a tree dwelling species whose conspicuous white-tipped hairs make it appear frosted. Occurs in coastal and montane forests throughout northern California, Sierra Nevada, and Great Basin. Roosts primarily in trees but will occasionally use buildings. Species is migratory and winters as far south as Mexico.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.
western red bat	<i>Lasiurus blossevillii</i>	--/SSC	Forages over grasslands, shrublands, open woodlands, and agricultural areas. Roosts in forests and woodlands from low elevations up through mixed coniferous forests. Winters in lowlands and coast areas. Largely solitary. Feeds on moths, crickets, beetles, and cicadas.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
hoary bat	<i>Lasiurus cinereus</i>	--/--	Occurs in open habitat or habitat mosaics. Requires medium to large trees for cover and habitat edges and/or open areas for foraging habitat. Tend to be solitary roosting in trees and foliage. Widespread in California except patchy in desert regions.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.
Yuma myotis	<i>Myotis yumanensis</i>	--/--	Occurs in open forest and woodland habitats within close proximity to water sources. Roosts in buildings, mines, caves, and crevices. Widespread and common.	Moderate. There are documented occurrences of this species within several miles of the site. Bats could use the larger trees in adjacent areas for roosting and forage over the site. Impacts are unlikely; however, precautionary measures should be in place to avoid impacts.
American badger	<i>Taxidea taxus</i>	--/SSC	Occurs in a variety of habitat types with friable soils. Badgers are carnivorous and dig their own burrows. They are active year-round, although less active in winter. Young are typically born in early spring.	Not present. Suitable habitat not present within the project site.
Sierra Nevada red fox	<i>Vulpes vulpes necator</i>	--/ST	Population occurs at high elevations (1,500 m and above) throughout the Sierra Nevada and Cascade Ranges. Forages for birds, reptiles, berries, and insects through stalking. Primarily nocturnal, but may feed by day. Pairs form long-term bonds and defend territories year-round. Breeding occurs from January through March with an average of 5 young born. Young stay with parents until fall.	Not present. There is a documented occurrences for this species around the project site from 1906. However, the site is outside of the reported elevation range of this species. Impacts are unlikely.

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Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Fish				
green sturgeon –southern DPS	<i>Acipenser medirostris</i>	FT/SSC	Spend majority of their lives in nearshore oceanic waters, bays, and estuaries. Return to estuarine and lower reaches of rivers to spawn at approximately 12 years of age. Adults return in mid-February and spawn March through July. Young grow quickly in first year (1 foot) and return to sea during their second or third year. Females can reach up to 7 feet in length with males being slightly smaller. Southern DPS applies to fish south of the Eel River.	High. Suitable habitat is present within the project site. Green sturgeon are known to occur within the Sacramento River. Precautionary measures should be in place to avoid impacts.
delta smelt	<i>Hypomesus transpacificus</i>	FT/SE	A small, short-lived fish of the Bay-Delta Estuary. Occupies habitats with a wide range of salinities, but prefers 2 to 7 ppt (parts salt per thousand parts water). Consumes primarily zooplankton but will take small insect larvae. Spawns in side channels and sloughs from February through July. Exhibits a one-year life cycle.	Not present. Suitable habitat is not present within the project site. Species range does not extend this far north up the Sacramento River. Impacts are unlikely.
steelhead- central valley DPS	<i>Oncorhynchus mykiss</i>	FT/--	Majority of life spent in open ocean. Reproduces in cool freshwater streams. Includes fish from Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bay and their tributaries.	High . Suitable habitat is present within the project site. Steelhead are known to occur within the Sacramento River watershed. Precautionary measures should be in place to avoid impacts.
Chinook salmon central valley fall/late fall-run ESU	<i>Oncorhynchus tshawytscha</i>	SSC/SSC	Majority of life spent in open ocean. Reproduces in streams and rivers. Includes fall-run fish in the Sacramento and San Joaquin River Basins and their tributaries, east of Carquinez Strait.	High . Suitable habitat is present within the project site. Chinook salmon are known to occur within the Sacramento River watershed. Precautionary measures should be in place to avoid impacts.
Chinook salmon Sacramento River winter-run ESU	<i>Oncorhynchus tshawytscha</i>	FE/SE	Majority of life spent in open ocean. Reproduces in streams and rivers. Includes naturally spawned winter-run fish in the Sacramento and its tributaries and two artificial propagated stocks.	High . Suitable habitat is present within the project site. Chinook salmon are known to occur within the Sacramento River watershed. Precautionary measures should be in place to avoid impacts.

Table 3. Special-status Animals or Species of Interest Considered in the Evaluation of the Project Based on the Background Literature Review and Field Surveys

Common Name	Scientific Name	Listing Status* (Federal/ State)	Description	Potential for Occurrence* within the Project Site and Local Observations
Chinook salmon central valley spring- run ESU	<i>Oncorhynchus tshawytscha</i>	FT/ST	Majority of life spent in open ocean. Reproduces in streams and rivers. Includes spring-run fish in the Sacramento and its tributaries, including the Feather River and one artificial propagated stock.	High . Suitable habitat is present within the project site. Chinook salmon are known to occur within the Sacramento River watershed. Precautionary measures should be in place to avoid impacts.

***Listing Status Codes:**

Federal:

FE = Listed as endangered (in danger of extinction) by the federal government.

FT = Listed as threatened (likely to become endangered within the foreseeable future) by the federal government.

Candidate = Candidate for listing as threatened or endangered by the federal government.

State of California (State):

SE = Listed as endangered by the State of California.

ST = Listed as threatened by the State of California.

SSC = California Species of Special Concern.

FP = Fully protected.

WL = Watch list.

Species Presence Definitions:

Not Present – Suitable habitat is not present within the project area and/or project area is outside the range of the species.

Unknown – Further information is needed to determine potential for species occurrence within the project area.

Low – One or more key habitat components is absent from the project area. Species is unlikely to occur within the project area.

Moderate – Some of the habitat components required by this species are present within the project area and/or marginally suitable habitat is present within surrounding areas. Species may occur within the project area.

High – All of the habitat components required by this species are present within the project area and/or it is known to occur in surrounding areas. Species is likely to occur within the project area.

Present – Species has reported occurrences within the project area and/or was observed on the project site during field surveys.