

Appendix E

Reading Island Boat Ramp Improvement Project

Mitigation, Monitoring, and Reporting Program
under the California Environmental Quality Act

November 2024

1.0 Introduction

This Mitigation, Monitoring, and Reporting Program (MMRP) was prepared by the Western Shasta Resource Conservation District (WSRCD) for the Reading Island Boat Ramp Improvement Project (project) to ensure that all required California Environmental Quality Act (CEQA) mitigation measures are implemented and completed during project construction and implementation. The Environmental Assessment/Initial Study (EA/IS) and mitigated negative declaration (MND) for this project include a series of mitigation measures to reduce potential environmental impacts during project construction and maintenance to less than significant levels.

CEQA Guidelines Sections 15091(d) and 15097(a), as well as Public Resources Code Section 21081.6 (a), require the public agency to adopt a reporting or monitoring program to ensure that measures to mitigate or avoid significant effects on the environment are implemented. NEPA does not require federal agencies to adopt a monitoring program for mitigation measures.

The lead agency has the primary responsibility for monitoring the implementation of the MMRP. Unless otherwise specified, WSRCD is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. WSRCD, at its discretion, may delegate implementation of its responsibility or portions thereof, as it deems appropriate to other agencies or consultants and shall enter into any necessary agreements or carry out other measures to ensure all actions are fully enforceable per Public Resources Code Section 21081.6.

2.0 Summary of Findings

Based on the findings in the 2024 EA/IS and MND, implementation of the proposed project would have no impact on the following resources:

- Aesthetics.
- Agriculture and forestry resources.
- Cultural resources.
- Energy.
- Geology and soils.
- Hazards and hazardous materials.
- Land use and planning.
- Mineral resources.
- Population and housing.
- Public services.
- Tribal cultural resources.
- Utilities and service systems.
- Wildfire.

Implementation of the proposed project would result in a less-than-significant impact on the following resources:

- Air quality.
- Biological resources – non-native, invasive plant species.
- Biological resources – wetlands and other waters of the U.S and State.
- Greenhouse Gas Emissions.
- Hydrology and Water Quality.
- Noise.
- Recreation.
- Transportation.

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Implementation of the proposed project would result in a less-than-significant impact with mitigation incorporated on the following resources:

- Biological resources – fisheries.
- Biological resources – wildlife.

3.0 MMRP Summary Table

The MMRP Summary Table (see below) identifies mitigation measures, as well as avoidance and minimization measures, plans, and construction best management practices (BMPs) that were incorporated into the proposed project as design features, to avoid or minimize potential adverse effects to the environment during construction. Although some measures were incorporated to minimize or avoid more than one potential impact, each measure is only listed once. Numbering of measures follows the numbering sequence used in the EA/IS and MND.

Mitigation Monitoring and Reporting Program Summary Table

Mitigation Measures

Resource	Mitigation Measure	Responsible Party	Timing
<p>Biological Resources: Fisheries and Wildlife (western pond turtle)</p>	<p><i>Fish-1: Implement Measures to Minimize Injury or Mortality to Adult or Juvenile Fish Species</i></p> <p>To minimize injury or mortality to adult or juvenile fish species, the contractor shall implement the following measures:</p> <ul style="list-style-type: none"> • A qualified fisheries biologist shall be on site to monitor in-water construction activities. • In-water construction activities shall be minimized to the greatest extent possible and shall be restricted to an in-water work window of December 1 through December 31, unless the California Department of Fish and Wildlife (CDFW) and National Oceanic and Atmospheric Administration (NOAA) Fisheries specify a different in-water work window for Anderson Creek. • Prior to beginning work, CDFW staff shall be consulted to determine appropriate avoidance measures to be implemented to avoid impact to listed salmonids based on current site and flow conditions. Avoidance measures may include seining and/or the placement of block nets to isolate the work area and prevent listed salmonids being present. CDFW staff will be onsite during the implementation of these in-water avoidance measures. • Prior to beginning work within Anderson Creek, the excavator bucket shall be operated to “tap” the surface of the water, or where safe, a qualified biologist shall wade ahead of the equipment to scare fish away from the work area. • Operation of the excavator bucket within the stream shall be conducted slowly and deliberately to allow fish time to seek refuge outside the work area. • Consultation shall be completed with CDFW and NOAA Fisheries for potential impacts to listed salmonids and green sturgeon. CDFW and NOAA Fisheries recommended measures shall be implemented as part of the proposed project. 	<p>Construction contractor; Western Shasta Resource Conservation District (WSRCD) or consultant biologist</p>	<p>During construction</p>

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	<ul style="list-style-type: none">• If water is drafted from Anderson Creek or the Sacramento River for construction purposes, water pump intakes shall be screened in compliance with CDFW and NOAA Fisheries salmonid-screening specifications.		
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Resource	Mitigation Measure	Responsible Party	Timing
Biological Resources: Fisheries	<p><i>Fish-2: Implement Measures to Minimize Potential to Interfere with Movement of Migratory Fish Species</i></p> <p>In-water work shall only occur up to 12 hours per day to allow a 12-hour window for fish to migrate through the work area. If turbidity curtains, block nets, or seines are used, they will be installed in a way to not inhibit fish migration through the project area.</p>	WSRCD or consultant biologist; Construction contractor	Before and during construction
Biological Resources: Wildlife	<p><i>Mitigation Measure WILD-1: Conduct Pre-Project Bird Nest Surveys and Implement Protection Measures</i></p> <p>The action area contains suitable nesting habitat for a multitude of species protected under the Migratory Bird Treaty Act of 1918. The regional nesting season for raptors protected under the act with the potential to occur within the action area is from January 1 through August 31; for non-raptors, nesting season in the region occurs from approximately April through August 15. Project activities that are likely to cause disturbance to nesting birds would require the following design features if the activities were implemented during the nesting season:</p> <ul style="list-style-type: none"> • <i>Pre-project surveys:</i> Project activities conducted during the nesting season would require surveys to determine the presence of active nests within or adjacent to proposed activities, no more than 7 days prior to commencing work. Surveys would be conducted by a qualified biologist. • <i>Implementation of Avoidance Measures:</i> Where nests are found, a buffer of 250 feet should be established around the nest and maintained until birds have fledged or breeding activities have ceased. If it is determined that a smaller buffer would be sufficient to prevent impacts to nesting birds, buffer size may be adjusted by a qualified biologist, in coordination with the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS). The buffer would be monitored by a biological observer until project work has ceased, or the nest is no longer active. Any incidental take of a migratory bird would be reported to CDFW and/or USFWS, as appropriate. 		

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<p>Biological Resources: Wildlife</p>	<p><i>WILD-2: Implement Avoidance Work Window and Pre-Construction Bat Surveys Prior to Removal of Trees that Provide Suitable Roosting Habitat</i></p> <p>Removal of trees that provide suitable bat roosting (such as trees with deep bark crevices, snags, or holes) shall be conducted between August 31 and October 30, or earlier than October 30 if evening temperatures fall below 45 degrees Fahrenheit or more than half inch of rainfall occurs within 24 hours during the month of October. If removal of trees that provide suitable roosting habitat for bats is necessary, a qualified biologist shall conduct preconstruction surveys for the presence of individuals within 24 hours prior to the start of construction. If roosting bats are discovered, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • A qualified biologist shall monitor removal and trimming of trees that provide suitable bat roosting habitat. • Tree removal and trimming shall occur over two consecutive days. • <u>Day 1:</u> Remove limbs and branches in the afternoon using chainsaws only. Limbs with cavities, crevices, or deep bark fissures shall be avoided, and only branches or limbs without those features shall be removed. • <u>Day 2:</u> The entire tree shall be removed. Prior to tree removal and trimming, each tree shall be shaken gently and several minutes shall pass before felling trees or limbs to allow bats time to arouse and leave the tree. The biologist shall search downed vegetation for dead or injured bat species and report any dead or injured special-status bat species to CDFW. 	<p>Construction contractor; WSRCD or consultant biologist</p>	<p>Before and during construction</p>
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Resource	Mitigation Measure	Responsible Party	Timing
Biological Resources: Wildlife	<p><i>WILD-3: Conduct Searches for Western Pond Turtle Each Day Before and During Construction Activities</i></p> <p>Turtle searches shall be conducted each day prior to the start of construction. Searches shall include the area under and around construction equipment, as well as the planned work area for the day. If western pond turtles are encountered within the work area, work activity in the immediate vicinity will cease until any turtles have left the work area on their own or a CDFW-approved biologist moves the individual(s) out of harm's way.</p>	WSRCD or consultant biologist	Before and during construction
Biological Resources: Wildlife	<p><i>WILD-4: Implement Measures for Valley Elderberry Longhorn Beetle</i></p> <p>Protection measures shall be implemented around elderberry shrubs with stems greater than 1-inch diameter at ground level (U.S. Fish and Wildlife Service 2017), including the following:</p> <ul style="list-style-type: none"> • No elderberry shrubs will be removed and as much as feasible, all activities adjacent to elderberry shrubs will be conducted outside the flight season of the valley elderberry longhorn beetle (March through July). • Elderberry shrubs within and immediately adjacent to the project area will be temporarily fenced, as needed, with guidance from the designated biologist and designated as biologically sensitive areas. • A qualified biologist will monitor the work area to assure that all avoidance and minimization measures are implemented. • Herbicide will not be used within the dripline of the elderberry shrub. Insecticides will not be used within 98 feet of an elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method. • Mechanical weed removal within the dripline of the elderberry shrub will be limited to the season when adults are not active (August through February) and will avoid damaging the elderberry. 	Construction contractor; WSRCD or consultant biologist	Before and during construction

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	<ul style="list-style-type: none">• Placement of excavated material shall occur in approved construction spoil area(s) more than 20 feet from the dripline of elderberry shrubs.• Construction personnel shall ensure that dust control measures are implemented in the vicinity of any elderberry shrub within 100 feet of construction activities.		
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Note: U.S. Fish and Wildlife Service. 2017. *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)*. U.S. Fish and Wildlife Service; Sacramento, California. 28 pp. [Government Report.] Viewed online at: <https://www.fws.gov/sites/default/files/documents/survey-guidelines-for-valley-elderberry-longhorn-beetle.pdf>.

Project Design Features

Resource	Design Feature	Responsible Party	Timing
Air Quality	<p>AQ-1: The construction contractor shall implement fugitive dust prevention and control measures, which may include the following:</p> <ul style="list-style-type: none"> • All ground-disturbing operations shall be suspended when winds exceed 20 miles per hour (mph), or when winds carry dust beyond the property line despite implementation of all feasible dust control measures. • Traffic and equipment speeds on all unpaved surfaces shall be reduced to 15 mph or less, and unnecessary vehicle traffic shall be reduced by restricting access. • Measures shall be implemented to reduce or eliminate carryout and trackout of fugitive dust or soil on construction vehicles, such as sweeping and picking up any trackout on adjacent public streets as needed. 	Construction contractor	During and after construction
Air Quality	<p>AQ-2: The construction contractor shall implement construction equipment exhaust minimization measures, which may include the following:</p> <ul style="list-style-type: none"> • All construction equipment shall be maintained in proper tune according to manufacturer’s specifications. • To the extent practicable, the use of diesel construction equipment meeting current California Air Resources Board (CARB) certification standards for off-road heavy-duty diesel engines shall be maximized. • Unnecessary vehicle idling shall be restricted to five minutes or less. • Visible emissions from stationary diesel-powered equipment shall not exceed 40-percent opacity for more than three minutes in any one hour. 	Construction contractor	Before and during construction
Biological Resources: Plants	<p>VEG-1: Native plant materials (e.g. seed) may be used on site after operations have been completed.</p>	Construction contractor	After construction

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Resource	Design Feature	Responsible Party	Timing
Biological Resources: Plants	WEED-1: As feasible, weed infestations will be inventoried and areas will be prioritized for treatment and/or avoidance as necessary, particularly in operating areas and in areas along access routes. When possible, high-risk sites will be pre-treated for weed establishment and spread before the implementation of individual projects.	WSRCD or consultant biologist	Before and during construction
Biological Resources: Plants	WEED-2: Where available, the contractor shall use weed-free gravel and fill dirt for road work. Introduction and spread of weeds caused by moving weed-infested sand, gravel, borrow, and fill material will be avoided. One year after implementation of the proposed action, the U.S. Bureau of Land Management (BLM) will monitor for the introduction of weeds, especially <i>Dittrichia graveolens</i> , in the action area where gravel was used.	Construction contractor; BLM	During construction
Biological Resources: Plants	WEED-3: To prevent weed germination and establishment, native vegetation will be retained to the maximum extent practicable in and around individual project activity areas and soil disturbance will be kept to a minimum while still meeting project objectives.	Construction contractor	During construction
Biological Resources: Plants	WEED-4: Equipment will be cleaned or pressure washed before entering public lands, prior to engaging in individual project activities, before transport to new work areas, and before leaving the project site if operating in areas infested with weeds to remove mud, dirt, and plant parts.	Construction contractor	Before, during, and after construction
Biological Resources: Plants	WEED-5: To avoid the importation or spread of invasive weeds or non-native invasive plant species, all tools, equipment and materials required for project implementation will be washed prior to transport to the project site.	Construction contractor	Before construction

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Resource	Design Feature	Responsible Party	Timing
Biological Resources: Wildlife	BIO-1: Native vegetation disturbance and removal shall be minimized to the greatest extent possible. Riparian vegetation along the streambank where excavation is proposed should be protected where feasible.	Construction contractor;	During construction
Cultural Resources	CR-1: All field personnel working on the project shall receive cultural resources sensitivity training prior to start of operations to ensure project design features intended to protect cultural resources are understood.	BLM or consultant archaeologist	Before construction
Cultural Resources	CR-2: At the request of the BLM archaeologist, project actions will be monitored by authorized cultural resources monitor(s).	BLM or consultant archaeologist	Before and during construction
Cultural Resources	CR-3: Post-Review Discoveries - If previously unidentified archaeological resources are encountered during operations all work must cease within 150 feet of the discovery and the BLM must be notified immediately. Examples of archaeological resources include but are not limited to: Native American flaked stone projectile points and tools, ground, battered or pecked stone implements; bottles, cans, ceramic, metal, and other materials that could date to 50 years or older; distinct or sudden occurrence of dark soils containing artifacts, bone, and/or shell remains; stacked or intentionally-placed rock features and excavated pits, trenches, and ditches; human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.2). A field examination by a professional archaeologist may be required and further steps for resource protection will be implemented, including mitigation and consultation with the Native American Indian community, consistent with the Native American Graves Protection and Repatriation Act procedures and other applicable laws and regulations. Work may proceed on other parts of the project site while compliance mitigation for archaeological or Tribal resources is being carried out.	BLM or consultant archaeologist	During construction

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Resource	Design Feature	Responsible Party	Timing
Cultural Resources	CR-4: The BLM archaeologist must be notified prior to any change in treatment or project design and all follow-up, maintenance, or re-entry actions to assure protection measures remain sufficient and are properly implemented.	Construction contractor	Before and during construction
Hydrology and Water Quality	WQ-1: The contractor shall prepare a stormwater pollution prevention plan (SWPPP) or Water Quality Control Program (WQCP), as appropriate, and receive approval from the lead agency prior to the start of construction. The Best management practices (BMPs) specified by the SWPPP or WQCP shall be implemented to monitor, minimize, and prevent construction dirt, debris, stormwater runoff, and miscellaneous by-products from entering Anderson Creek.	Construction contractor and WSRCD	Before and during construction
Hydrology and WQuality	WQ-2: The contractor shall prepare and implement a spill prevention and control plan prior to construction, which will contain measures to avoid or minimize potential chemical contamination within Anderson Creek, the Sacramento River, and its floodplain. The plan may include the following construction BMPs: <ul style="list-style-type: none"> • All personnel involved in use of hazardous materials shall be trained in emergency response, spill control, and notification. • Contractors shall have oil-absorbent and spill-containment materials on site when mechanical equipment is in operation within 100 feet of the stream and shall adhere to all required State and federal standards. • If a spill occurs, no additional work shall commence in-channel until (1) the mechanical equipment is inspected by the contractor and the leak has been repaired, (2) the spill has been contained, and (3) the appropriate agencies have been contacted and have evaluated the impacts of the spill. • Staging, storage, and refueling of vehicles and equipment shall take place outside the stream channel. Any equipment that may leak shall be 	Construction contractor	Before and during construction

	<p>stored over impermeable surfaces, if available, and drip pans (or other type of impermeable containment measure) will be placed under parked machinery and checked and replaced when necessary, to prevent drips and leaks from entering the environment.</p> <ul style="list-style-type: none"> • Machinery that enters the stream during work shall be steam cleaned, inspected daily, and properly maintained to avoid water quality contamination from the release of grease, oil, petroleum products, or other hazardous materials. • Every reasonable precaution will be exercised to protect streams and other waters from pollution with fuels, oils, and other harmful materials. Safer alternative products (such as biodegradable hydraulic fluids) will be used where feasible. • The use or storage of petroleum-powered equipment shall be accomplished in a manner to prevent the potential release of petroleum materials into the stream. • Any fuel stored within the proposed action area shall be stored outside the channel in a double-walled contained vessel surrounded by a berm appropriately sized for the volume. • Spill containment kits shall be on site at all times. 		
Noise	<p>Noise-1: The contractor shall implement BMPs to minimize construction-related noise, including the following:</p> <ul style="list-style-type: none"> • All construction equipment shall be equipped with the manufacturer’s specified noise-muffling devices that are properly operated and maintained. • All construction equipment shall be stored in a designated staging area during the construction phase to eliminate daily heavy-duty truck trips on local roadways. • Speed limits shall be established and enforced for construction vehicle traffic on Adobe Road to minimize traffic noise. 	Construction contractor	Before and during construction

