Western Pacific Interceptor Canal
Channel Maintenance Project
Draft Initial Study/Proposed Mitigated Negative Declaration

California Department of Water Resources

Prepared by:
Division of Flood Management
Flood Maintenance Office
California Department of Water Resources

Contact:
Melanie Powers
3310 El Camino Avenue Room 140
Sacramento, CA 95821
(916) 574-0359

March 2015

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION FOR THE WESTERN PACIFIC INTERCEPTOR CANAL CHANNEL MAINTENANCE PROJECT

The California Department of Water Resources, Division of Flood Management (DFM) has prepared this Initial Study and intends to adopt the proposed mitigated negative declaration for the Western Pacific Interceptor Canal Channel Maintenance Project in compliance with the California Environmental Quality Act.

Project Title: Western Pacific Interceptor Canal Channel Maintenance Project

Lead Agency: California Department of Water Resources, Division of Flood Management, Flood Maintenance Office

Project Location: The Western Pacific Interceptor Canal is located in Yuba County north of Rio Oso and just east of State Route 70 (Figure 1).

Project Description: DWR's Flood Maintenance Office Sutter Maintenance Yard proposes to conduct channel maintenance activities including debris and/or obstruction removal, vegetation management and wildlife damage management activities within Western Pacific Interceptor Canal. Channel maintenance activities are required to maintain design flows, ensure proper water conveyance, and allow adequate inspection of the channel.

Public Review Period: The Initial Study/Mitigated Negative Declaration is being circulated for public review and comment for a period of 30 days starting on March 25, 2015. Written comments must be received no later than the close of business (4:00pm) on April 24, 2015. Comments should be emailed to Melanie.Powers@water.ca.gov or mailed to:

Melanie Powers
California Department of Water Resources
Division of Flood Management- Flood Maintenance Office
3310 El Camino Ave., Room 140
Sacramento, CA 95821

Copies of this Mitigated Negative Declaration and Initial Study are available at:

Department of Water Resources- Flood Maintenance Office
3310 El Camino Ave., Room 140, Sacramento, CA 95821

Yuba County Library
303 Second Street, Marysville, CA 95901

Yuba County Clerk
915 8th Street, Suite 107, Marysville, CA 95901

Online at: http://www.water.ca.gov/floodmgmt/fmo/msb/channel-maintenance.cfm

PROPOSED MITIGATED NEGATIVE DECLARATION

Project Title: Western Pacific Interceptor Canal Channel Maintenance Project

Lead Agency: Department of Water Resources (DWR), Division of Flood Management (DFM)

Project Location: The Western Pacific Interceptor Canal (WPIC) is located in Yuba County north of Rio Oso and just east of State Route 70

Project Description: DWRs, Flood Maintenance Office (FMO) Sutter Maintenance Yard (SMY) proposes to conduct channel maintenance activities including debris and/or obstruction removal, vegetation management and wildlife damage management activities within WPIC. Channel maintenance activities are required to maintain design flows, ensure proper water conveyance, and allow adequate inspection of the channel.

Findings: Based on the Initial Study, it has been determined that the proposed project would not have any significant effects on the environment because environmental commitments and mitigation measures would be implemented to reduce impacts to a less than significant level. This conclusion is supported by the following findings:

1. The proposed project would not impact the following California Environmental Quality Act (CEQA) Appendix G environmental factors:
    a. Land Use Planning
    b. Mineral Resources
    c. Population and Housing
    d. Public Services
    e. Transportation and Traffic
    f. Utilities and Service Systems
2. The proposed project would have a less than significant impact to the following CEQA Appendix G environmental factors:
    a. Aesthetics
    b. Agriculture and Forestry Resources
    c. Air Quality
    d. Geology and Soils
    e. Greenhouse Gas Emissions
    f. Noise
3. Mitigation has been adopted by the DWR to reduce potentially significant impacts to a level of less than significant related to the following CEQA Appendix G environmental factors:
    a. Biological Resources
    b. Cultural Resources
    c. Hazards and Hazardous Waste
    d. Hydrology and Water Quality
    e. Recreation

MITIGATION MEASURES

The following mitigation measures will be implemented by DWR to avoid, minimize and mitigate potential environmental impacts of the proposed project. Implementation of these mitigation measures would reduce the environmental impacts of the proposed project to a less than significant level.

Biological Resources

Mitigation Measure BIO-1: Secure Applicable State and/or Federal Permits and Implement Permit Requirements

DWR will consult with State and federal environmental regulatory agencies and apply for and obtain all applicable environmental permits relevant to project work in order to reduce and/or minimize potential project impacts. DWR will comply with all terms and conditions of the agreed upon permits including measures to protect species and habitat.

Mitigation Measure BIO-2: Pre-Maintenance Environmental Awareness Training

A DWR Environmental Scientist will develop and administer an environmental awareness training program to all maintenance personnel before maintenance activities begin. All maintenance staff working on the project will be required to attend an environmental awareness training given by the environmental staff on a yearly basis. The training will include information regarding species identification, natural history, habitat, mitigation measures of special status species (e.g. Giant Garter Snake, Swainson's Hawk, etc.) and sensitive habitats, including wetlands, which may occur on-site.

A qualified biologist will be on-call during maintenance activities. If a sensitive species is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the species will not be harmed.

Mitigation Measure BIO-3: Pre-Maintenance Wildlife, Bird and Plant Surveys

Pre-maintenance surveys for wildlife, bird nests (including song bird nests), special status plants, and/or sensitive habitats will be conducted by a qualified biologist prior to maintenance activities. Additionally, pre-construction surveys shall be implemented as follows:

- Swainson's Hawk and White-tailed Kite: If work is to be conducted during the nesting season (April 1-August 31), pre-maintenance surveys will be completed prior to maintenance work within one-half mile of the project site to identify any active nests (eggs or juveniles). Surveys will be completed in accordance with the Recommended Timing and Methodology for Swainson's Hawk nesting Surveys in California's Central Valley (SWA TAC 2000). If an active nest is identified, work will not occur within ¼ mile of the nest until the young has fledged the nest. If there is a nest within ¼ mile of maintenance work, DWR will consult with the California Department of Fish and Wildlife.
- Tricolored Blackbird, raptors and other bird species: If work is to be conducted during the nesting season (February – early August), pre-maintenance surveys

will be completed prior to maintenance work within 250 feet of the project site. If an active nest is identified, impacts will be avoided by establishment of appropriate buffers to minimize the impacts. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be likely to adversely affect the adults or their young. No trees or other vegetation with an active nest will be removed until a qualified biologist confirms that the nest is no longer active.

- Valley Elderberry Longhorn Beetle: A qualified biologist will survey the vegetation prior to removal to determine if elderberry shrubs are present. If there are elderberry shrubs, the shrubs will be flagged and avoided and conservation measures will be implemented according to U.S. Fish and Wildlife Service protocol.
- Within 24 hours prior to construction activities, the project area shall be surveyed for Giant Garter Snake (GGS) by a qualified biologist. If a GGS is identified within the maintenance area, work will not proceed until the snake has moved out of the maintenance area on its own.
- Western Pond Turtle: A qualified biologist will survey Western Pond Turtle habitat before work commences within the project area. If a Western Pond Turtle is identified within the maintenance area, work will not proceed until the turtle has moved out of the work area on its own.

Mitigation Measure BIO-4: Avoid and Minimize Impacts to Giant Garter Snake

- Mower height will be set to 6 inches off the ground and mowing can only occur during the GGS active season (May 1 – October 1).
- Environmental Staff will monitor maintenance work during beaver dam removal. If a GGS is identified, all work will stop until the snake has left the site on its own.
- If vehicles will be left onsite overnight, they will be surveyed in the morning to see if GGS are present. If a GGS if found, it will be left alone and maintenance staff will wait to start up the engine until the snake has left the site on its own.
- Keep speeds to 20 mph on roadways within the project area adjacent to GGS habitat.

Mitigation Measure BIO-5: Avoid and Minimize Impacts to Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Maintenance equipment will be required to stay at least 250 feet away from potential habitat of Vernal Pool Fairy and Tadpole Shrimps. Potential habitat at the project site includes the vernal pool south of Plumas Arboga Road and Vernal Swales that are scattered throughout the project site. A DWR Environmental Scientist will provide SMY staff with a map of the channel including delineation of the wetlands and a 250 foot buffer around the wetlands to avoid. Wetlands and 250 foot buffers may be flagged by a qualified biologist to assist SMY staff in avoiding these sensitive areas.

Mitigation Measure BIO-6: Avoid and Minimize Impacts to Central Valley Spring-run Chinook Salmon, Central Valley Steelhead and Other Native/Non-native Fish Species
Environmental Staff will monitor maintenance work during beaver dam and debris removal in the low flow channels. If a fish is identified near the dam or debris removal area, all work will stop until the fish has left the site on its own.

Mitigation Measure BIO-7: Avoidance of Wetlands by Maintenance Equipment
Maintenance equipment will avoid driving in the wetted portions of the channel, vernal pools, vernal swales and emergent wetlands. The staging area for equipment storage will be located outside of the wetted portions of the channel, vernal pools, vernal swales and emergent wetlands.

Cultural Resources

Mitigation Measure CULT-1: If historical or unique archaeological resources are accidentally discovered during maintenance activities, all work would temporarily cease in the immediate area until the findings can be assessed by a qualified archaeologist and an appropriate course of action can be determined if necessary, in consultation with the State Historic Preservation Officer. Work may continue on other parts of the proposed project while evaluation and mitigation takes place (CEQA Guidelines §15064.5 [f]). If the find is determined to be an historical or unique archaeological resource, sufficient time allotment will be allowed for implementation of avoidance measures or appropriate mitigation.

Mitigation Measure CULT-2: If human remains are found, such remains would be subject to the provisions of California Public Resources Health and Safety Code Section 7050.5-7055. The requirements and procedures would be implemented, including immediately stopping work in the vicinity of the find and notifying the County Coroner. A DWR archaeologist would also need to be contacted immediately. The process for notification of the California Native American Heritage (NAHC) and consultation with the individual(s) identified by the NAHC as the “most likely descendent” is set forth in Section 5097.98 of the California Public Resources Code. Work in the vicinity of the find can restart after the remains have been investigated and appropriate recommendations have been made for their treatment and disposition.

Hazards and Hazardous Materials

Mitigation Measure HAZ-1: Herbicides will be applied in accordance with California Department of Pesticide Regulation
All herbicide applications will follow California Department of Pesticide Regulation (DPR) regulations and guidelines. A licensed Pest Control Advisor will determine appropriate pest management recommendations including timing, type of herbicide and application rate. Applicators will be certified or trained according to DPR regulations.

Hydrology and Water Quality

Mitigation Measure BIO-7: Avoidance of Wetlands by Maintenance Equipment
Maintenance equipment will avoid driving in the wetted portions of the channel, vernal

pools, vernal swales and emergent wetlands. The staging area for equipment storage will be located outside of the wetted portions of the channel, vernal pools, vernal swales and emergent wetlands.

Recreation

Mitigation Measure REC-1: Coordinate With Local Duck Hunting Clubs During Duck Hunting Season

To minimize disturbance to duck hunting, SMY will contact and coordinate with local duck hunting clubs as appropriate prior to beginning maintenance work during duck hunting season.

BEST MANAGEMENT PRACTICES

As an environmental commitment, the proposed project would incorporate the following Best Management Practices (BMPs) from DWR's Climate Action Plan- Phase I: Greenhouse Gas Reduction Plan (GGERP) to avoid and minimize impacts related to greenhouse gas emissions:

- BMP 1. Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.
- BMP 2. Limit deliveries of materials and equipment to the site to off peak traffic congestion hours (BMP 6 in GGERP).
- BMP 3. Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the State airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement (BMP 7 in GGERP).
- BMP 4. Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction (BMP 8 in GGERP).
- BMP 5. Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Management Plan prior to commencement of construction (BMP 9 in GGERP).

Western Pacific Interceptor Canal
Channel Maintenance Project
Draft Initial Study

California Department of Water Resources

Prepared by:
Division of Flood Management
Flood Maintenance Office
California Department of Water Resources

Contact:
Melanie Powers
3310 El Camino Avenue Room 140
Sacramento, CA 95821
(916) 574-0359

March 2015

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	Cubic Feet per Second
CGS	California Geological Survey
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CVFPB	Central Valley Flood Protection Board
dB	Decibels
dBA	A-weighted Decibels
DBH	Diameter Breast Height
DOC	California Department of Conservation
DPR	California Department of Pesticide Regulation
DPS	Distinct Population Segment
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EEPOM	Evaluation of Environmental Permitting for Operation and Maintenance
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Federal Endangered Species Act
ESU	Evolutionarily Significant Unit
FMO	Flood Maintenance Office

FRAQMD	Feather River Air Quality Management District
GGERP	Greenhouse Gas Emissions Reduction Plan
GGS	Giant Garter Snake
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
LOS	Levels of Service
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MRZ	Mineral Resources Zones
NAAQS	National Ambient Air Quality Standards
NACH	California Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NMFS	National Marine Fisheries Service
NO_X	Nitrogen Oxides
NSVPA	Northern Sacramento Valley Planning Area
$PM_{2.5}$	Fine Particulate Matter
PM_{10}	Suspended Particulate Matter
PPV	Peak Particle Velocity
RCEM	Roadway Construction Emissions Model
ROG	Reactive Organic Gases
SMGB	State Mining Geology Board
SMY	Sutter Maintenance Yard
SO_2	Sulfur Dioxide
SR	State Route
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
VELB	Valley Elderberry Longhorn Beetle
WPIC	Western Pacific Interceptor Canal

PROJECT INFORMATION

a) Project Title: Western Pacific Interceptor Canal Channel Maintenance Project

b) Lead Agency Name and Address:
California Department of Water Resources
Division of Flood Management
Flood Maintenance Office
3310 El Camino Ave.
Sacramento, CA 95821

c) Contact Person and Phone Number:
Melanie Powers
Environmental Scientist
Phone: 916-574-0359

d) Project Sponsor's Name and Address:
Department of Water Resources
Division of Flood Management
Flood Maintenance Office
3310 El Camino Ave.
Sacramento, CA 95821

e) Project Location: The Western Pacific Interceptor Canal is located in Yuba County north of Rio Oso and just east of State Route 70 (Figure 1).

f) General Plan Designation: AE-80 which is defined as an Exclusive Agricultural (1 unit/80 acres) zoning district.

g) Zoning: Agricultural

h) Surrounding Land Uses and Setting: Surrounding land uses include agriculture and residential areas.

i) Other Public Agencies Whose Approval is Required: California Department of Fish and Wildlife Streambed Alteration Agreement 1602

1 INTRODUCTION

1.1 PURPOSE OF INITIAL STUDY

Pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an Environmental Impact Report (EIR), a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The CEQA Guidelines require than an Initial Study contain a project description, description of environmental setting, identification of environmental effects by checklist or other similar form, explanation of environmental effects, discussion of mitigation for significant environmental effects, evaluation of the project's consistency with existing, applicable land use controls, and the name of persons who prepared the study.

1.2 IMPACT ANALYSIS

Impact analysis sections were guided using environmental checklists to guide questions for analyses. Each section uses the environmental checklist from the 2014 CEQA Guidelines Appendix G.

1.3 ANTICIPATED PERMITS, APPROVALS AND DECISIONS

- California Department Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement (LSAA) 1602

2 PROJECT DESCRIPTION

This section describes the general project. Specific project details that impact environmental factors will be described under the environmental setting of the corresponding environmental factor section in the Initial Study.

2.1 DESCRIPTION OF PROJECT

The Western Pacific Railroad Interceptor Canal (WPIC), also known as Western Pacific Railroad Intercepting Channel, is located in Yuba County north of Rio Oso and just east of California State Route 70 (Figure 1). The WPIC is part of the United States Army Corps of Engineers (USACE) federal Sacramento River Flood Control Project. California Water Code section 8361(n) states that the Department of Water Resources (DWR) has channel maintenance responsibilities of the flowage area of WPIC from the confluence of the Bear River to five miles upstream (Figure 2). Based on the USACE Operation and Maintenance Manual (O & M Manual) the design capacity of WPIC is 10,000 cubic feet per second (cfs).

The proposed project footprint encompasses approximately 433 acres from the west to the east levee of the WPIC and from the Bear River in the south to old Reed's Dry Creek on the north. The area of the channel DWR has maintenance responsibility for is dominated by native and non-native herbaceous species with patches of riparian and willow scrub communities (Figure 2; Photographs 1-10). Vernal pools, vernal swales and emergent marsh wetlands are scattered throughout the channel. The low flow channels, located on the east and west sides, run parallel along WPIC and are lined with riparian vegetation, willow patches and emergent wetland vegetation. In addition, there are irrigation canals that cross the channel at multiple locations. Large tracks of the channel are actively farmed in rice or grazed by cattle. DWR does not anticipate working in these areas as vegetation growth is controlled by private agricultural activities.

DWR's Flood Maintenance Office (FMO) Sutter Maintenance Yard (SMY) proposes to conduct channel maintenance activities including debris and/or obstruction removal, vegetation management and wildlife damage management activities including rodent control (i.e. beaver) within WPIC. Channel maintenance activities are required to maintain design flows, ensure proper water conveyance, and allow adequate inspection of the channel for the purposes of State and federal flood management. Maintenance work will take approximately 1.5 months per year.

Channel Maintenance Activities

Debris and/or Obstruction Removal

DWR may remove debris, trash, rubbish, beaver dams, woody and herbaceous vegetation deposited by high water events, downed trees, dead trees which are in clear danger of falling in or across a channel, branches, and associated debris that substantially obstruct (or could obstruct) water flow, reduce channel capacity, accelerate erosion, damage concrete box culverts, metal culverts, bridge structures, or cause

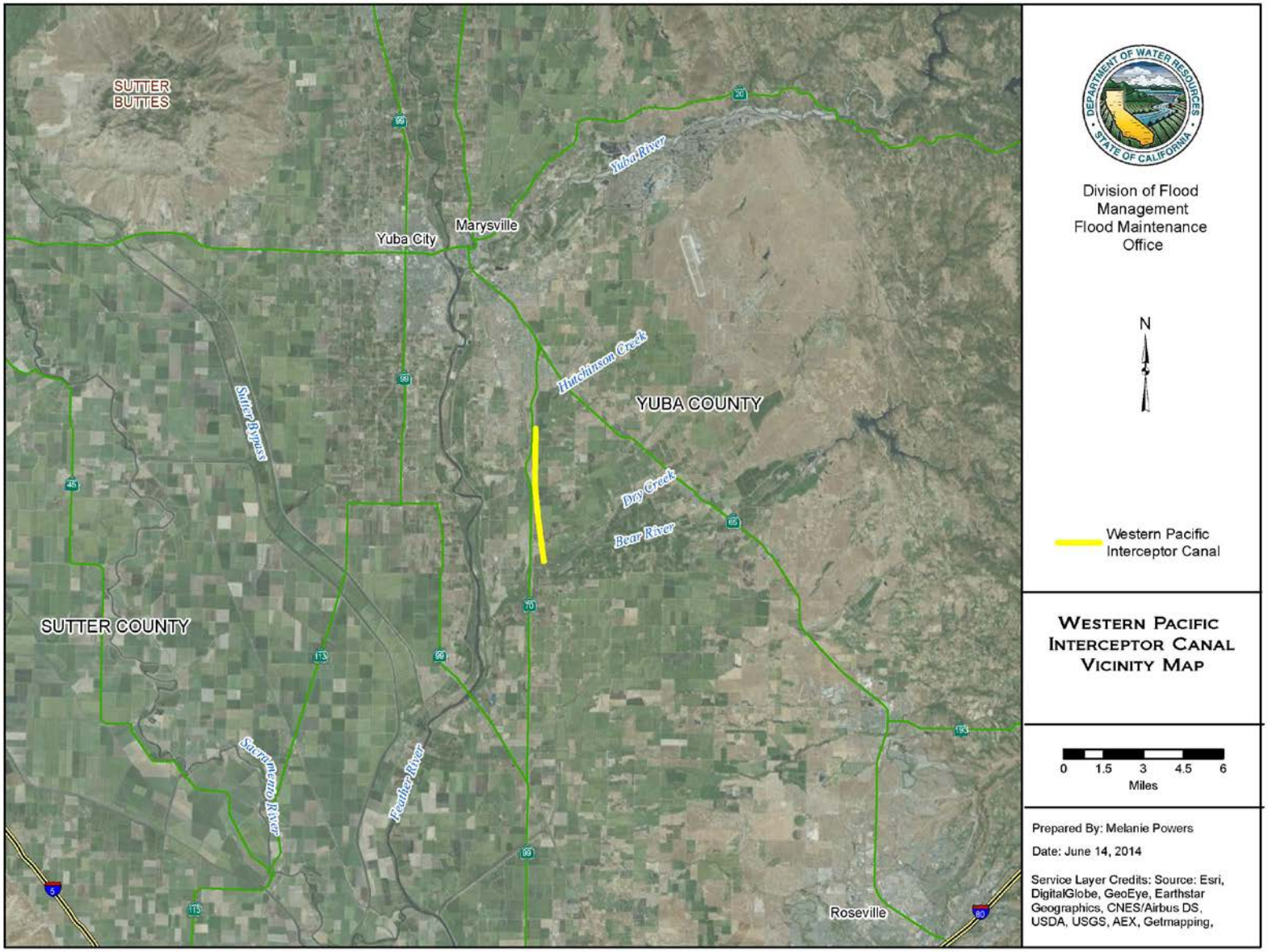

Figure 1. Western Pacific Interceptor Canal Vicinity Map.

Figure 2. Western Pacific Interceptor Canal Channel Maintenance Project Area.

Photograph 1. LM 0, at the southern end of WPIC, near the confluence with the Bear River. This section is dominated with herbaceous species and scattered riparian trees.

Photograph 2. Near LM 1.0, an agricultural ditch running perpendicular across WPIC. The photograph shows dense riparian growth to be managed and vernal swale area.

Photograph 3. Near LM 1.5, an agricultural ditch running perpendicular across WPIC surrounded by rice agricultural land on either side.

Photograph 4. Near LM 2.0, at the confluence of WPIC and North Dry Creek, emergent marsh wetland and riparian vegetation.

Photograph 5. Near LM 4.0, an area of desnse sandbar willow, Himilayan blackberry growth and cattle grazing.

Photograph 6. Near LM 5.0 at the northern extent of WPIC, dense wetland vegetation and area grazed by cattle. Management in this area will consist of debris and beaver dam removal.

Photograph 7. Vernal pool within WPIC south of Arboga Road.

Photograph 8. Vernal swale within WPIC seen in the background (the yellow strip is goldfield with wildflowers).

Photograph 9. Beaver dam within WPIC low flow channel.

Photograph 10. Downed tree within WPIC low flow channel. An example of debris that will be removed as part of the project.

pump damage.

Hand tools including pruners, pole saws, hedge trimmers and chainsaws will be used to clear debris/obstructions. For large materials, an excavator, boom truck, backhoe or dozer equipped with a winch will be used to clear and remove debris/obstructions.

Any trash that is collected will be disposed of offsite properly. Woody material or vegetation removed from the channel will be mulched/shredded and spread onsite, piled up and burned onsite if conditions allow, or disposed of offsite. Large, downed trees may be cut up into small logs and left on site.

Vegetation Management

DWR may cut, mow, disc, bulldoze, graze livestock, or spray herbicides on above ground vegetation including grasses, shrubs, and woody growth to maintain the designed capacity of floodways and to facilitate site inspections. DWR may control vegetation by strip discing 15 foot wide sections within the channel, leaving 25 foot swaths between. DWR may cut, trim, or remove the lower branches of large trees up to six feet above the ground surface to facilitate site inspections and maintain channel capacity. DWR may remove dead downed trees and trees less than 4-inches diameter at breast height (DBH) to maintain channel capacity and prevent erosion. DWR may control vegetation growth within the low flow channels and irrigation canals to maintain flow capacity by removing vegetation via mechanical equipment and/or spraying herbicides. DWR may remove non-native vegetation (e.g., arundo, red sesbania, eucalyptus, water hyacinth, and ludwigia) to maintain channel capacity and improve native habitat. Non-native material that is removed will be disposed of properly to prevent re-infestation within the channel.

Hand crews using tools such as pruners, loppers, pole saws, chainsaws, weed whackers will be used to manage vegetation. A masticator (a mulching attachment mounted on a small rubber track tractor) and mower may be used in areas of dense shrub growth. Any woody material or vegetation removed from the channel will be mulched/shredded and spread onsite, piled up and burned onsite if conditions allow, or disposed of offsite.

To preserve habitat for fish and wildlife species, a minimum of a 15 foot fringe will be retained along both sides of the low flow channels and no vegetation management activities will occur in these areas. Non-native vegetation, including trees greater than four inches DBH, may be removed as needed to maintain channel capacity and improve native habitat throughout the entire channel area.

A brief description, including type of vegetation and management activities that will occur within each vegetation type is provided below.

Dense Vegetation Growth Areas

There are several areas within WPIC where dense vegetation growth including Himalayan blackberry (*Rubus armeniacus*) and sandbar willow (*Salix exigua*) currently

exists. Vegetation maintenance activities will initially be focused in these areas to maintain channel flood flow conveyance capacity. These heavily vegetated areas are typically located adjacent to the agricultural ditches/canals that run perpendicular to the flow of water in WPIC and drain the surrounding agricultural fields. Once the initial vegetation management activities have been completed in these areas, it is anticipated that annual tractor mowing and/or application of herbicides will be used to prevent regrowth of dense vegetation.

In areas where dense Himalayan blackberry is present, proposed vegetation management will include cutting 15 feet wide sections through the blackberry, parallel to the flow of the channel, using a masticator. Approximately 25 feet wide swaths will be left uncut between the sections to preserve habitat for nesting birds and other wildlife.

Vernal Pools, Vernal Swales and Emergent Marsh Wetland Areas
There are several vernal pools and vernal swales scattered throughout WPIC (see Photographs 7 and 8). There is a vernal pool just south of Plumas Arboga Road that contains multiple vernal pool indicative plant species including *Eryngium castrense* (coyote thistle)*, Lasthenia glabrata* (goldfields)*, Navarretia leucocephala* (white navarretia)*, Plagiobothrys stipitatus* (popcorn flower) and *Psilocarphus brevissimus* (woolly marbles). The vernal swales contain *Lasthenia glabrata*.

The vegetation within these areas primarily consists of herbaceous wetland species that lay down during high water events or grow close to the grounds, therefore will not restrict flows. Additionally, there is no woody vegetative growth within and adjacent to the vernal pool and swale areas. Large woody debris that may be deposited within the vernal pools or vernal swales from high water flows may be removed if determined that the debris will obstruct/restrict flows or reduce channel flow capacity. Removal of woody debris within the vernal pool or vernal swales will be done by hand crews using hand tools.

Vegetation management at the edge of emergent marshes may occur if it is determined that the vegetation present obstructs/restricts water flow, and/or accelerates erosion damage to culverts, bridges, or levees. Vegetation management includes cutting, clearing, and removing any vegetation that is less than four inches at DBH. Native trees larger than four inches DBH will not be removed, but will be pruned and limbed up to six feet above the ground surface.

<u>Timing of Work</u>
Channel maintenance may occur as needed anytime throughout the year for a total of approximately 1.5 months per year. This work will be conducted in the day during typical business hours.

3 PERMITS AND REGULATORY APPROVALS

DWR will apply for a CDFW LSAA 1602 Permit for the proposed project work. DWR will apply for and obtain additional applicable environmental permits relevant to project work as needed in order to reduce and/or minimize potential project impacts.

4 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology and Soils
☐ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☐ Noise
☐ Population and Housing	☐ Public Services	☒ Recreation
☐ Transportation and Traffic	☐ Utilities and Service Systems	☒ Mandatory Findings of Significance

5 DETERMINATION

On the basis of the initial evaluation that follows:

☐ I find that the proposed project WOULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, the project impacts were adequately addressed in an earlier document or there will not be a significant effect in this case because revisions in the project have been made that will avoid or reduce any potential significant effects to a less than significant level. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

Signature _____ Date 3/18/15

Jon Ericson
Chief, Flood Maintenance Office
California Department of Water Resources

5.1 AESTHETICS

5.1.1 Environmental Setting

The scenic character of the proposed project area is characterized by agricultural land and developed subdivisions. The channel contains a mosaic of land uses including active rice farming, cattle grazing, and open space. The WPIC is part of the Sacramento River Flood Control Project. The proposed project footprint is within the WPIC channel from the confluence of the Bear River to five miles upstream.

Visibility within the proposed maintenance area consists mostly of rice fields, row crops, orchards and developed subdivisions in the nearby community of Plumas Lake. The channel maintenance activities would require staging equipment and materials which would create a temporary impact to the proposed project area's visual character.

5.1.2 Environmental Checklist and Discussion

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?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

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

No impact. Maintenance materials and equipment may be visible during maintenance work that may occur throughout the year. The channel maintenance activities are not located in a scenic vista, nor would they change the scenic character of the area. The proposed project would not substantially damage scenic resources.

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

No Impact. There are no designated scenic resources, such as wild and scenic rivers or

scenic highways in the vicinity of the proposed project. The proposed project would not substantially damage scenic resources.

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

Less Than Significant Impact. The character of the area is defined by rice fields, row crops, orchards and developed subdivisions. Channel maintenance would include removal of debris and vegetation management within the channel. The maintenance would not substantially degrade the existing visual character or quality of the site or the surroundings.

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 is limited to channel maintenance and does not include new sources of substantial light or glare which would adversely affect day or nighttime views in the area.

5.2 AGRICULTURAL AND FORESTRY RESOURCES

5.2.1 Environmental Setting

The proposed project vicinity consists mostly of rice fields, row crops, orchards and developed subdivisions in the nearby community of Plumas Lake. The proposed project footprint encompasses approximately 433 acres from the west to the east levee of the WPIC and from the Bear River in the south to old Reed's Dry Creek on the north (Figure 2). Portions of the channel are actively farmed in rice or grazed by cattle. Private entities may begin agricultural practices at any time within the channel, DWR's maintenance work will not preclude any such activity. Most of WPIC property is private with flood easements held by the Central Valley Flood Protection Board (CVFPB).

WPIC is zoned as AE-80 which is defined as an Exclusive Agricultural (1 unit/80 acres) zoning district (YCDC 2014). Land designated as Prime Farmland and Unique Farmland by the California Department of Conservation (DOC) are located within the project footprint (CDOC 2010). These areas are located south of Best Slough and are actively farmed in rice. Minimal maintenance work may occur within these areas and there will be no changes to zoning or any effect to agricultural uses).

5.2.2 Environmental Checklist and Discussion

AGRICULTURE AND FORESTRY 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 Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

AGRICULTURE AND FORESTRY RESOURCES Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

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

No Impact. Prime Farmland and Unique Farmland is located within the proposed project footprint. These areas are located south of Best Slough and are actively farmed in rice. Past private agricultural activities kept vegetation growth and debris/obstruction issues under control for flood management purposes. Because private agricultural activities have stopped throughout most of the channel, DWR needs to conduct maintenance for State and federal flood management due to vegetation growth and debris/obstruction issues. Maintenance of the channel would not convert Prime Farmland or Unique Farmland to nonagricultural use.

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

No Impact. WPIC channel is zoned as AE-80 and Prime Farmland and Unique Farmland is located within the proposed project footprint. Yuba County does not participate in the Williamson Act. Maintenance located within the channel would not conflict with existing zoning for agricultural use, or a Williamson Act contract (CDOC 2010).

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

No Impact. The proposed maintenance activities are not located within forest land, timberland or timberland zoned.

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

No Impact. The proposed maintenance activities are not located within forest land.

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

No Impact. The proposed maintenance activities do not involve changes to the existing environment and would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

5.3 AIR QUALITY

5.3.1 Environmental Setting

The proposed project site is located within Yuba County, which is part of the Sacramento Valley Air Basin. The Feather River Air Quality Management District (FRAQMD) encompasses Yuba County and the proposed project area. The SMY staff would drive approximately thirteen to sixteen (13-16) miles to the site during maintenance of the WPIC. The proposed project involves vegetation management within the channel for approximately 1.5 months per year. Air emissions will be derived from transporting staff and machinery to and from the site, and onsite use of machinery such as a tractor and excavator.

The California Air Resources Board (CARB) and the Environmental Protection Agency (EPA) have set ambient air quality standards for California through the California ambient air quality standards (CAAQS) and the national ambient air quality standards (NAAQS). The CAAQS and NAAQS established standards for six air pollutants (criteria pollutants): carbon monoxide (CO), nitrogen oxides (NO_x), ozone, fine particulate matter ($PM_{2.5}$), suspended particulate matter (PM_{10}), and sulfur dioxide (SO_2). As part of the CAAQS, CARB also adopted standards for hydrogen sulfide, sulfates, lead, vinyl chloride, and visibility reducing particles.

CARB and the EPA evaluate whether counties have met the CAAQS and NAAQS by using monitored pollutant data throughout California to create updated pollutant attainment status designations for each county. Each county is designated as attainment or nonattainment for each pollutant or is designated unclassified if there is not enough information. Table 1, below, describes the pollutant attainment status Yuba County. Yuba County has not met the state pollutant attainment standards for PM_{10} and ozone.

Table 1. FRAMQD Area Designations for State and Federal Air Quality Standards

Designation/Classification		
Pollutants	**State**	**Federal**
1-Hour Ozone	S. Sutter: Serious Nonattainment	No Federal Standard
	The Balance of FRAQMD: Nonattainment-Transitional*****	
8-Hour Ozone	Nonattainment-Transitional *	S. Sutter: Severe Nonattainment
		Sutter Buttes (>2000ft): Nonattainment
		The Balance of FRAQMD: Unclassified/Attainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Attainment******	Nonattainment (As of Dec 14, 2010)
Carbon Monoxide	Sutter County: Attainment	No Federal Standard
	Yuba County: Unclassified	

Designation/Classification		
Pollutants	**State**	**Federal**
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified/Attainment
Sulfates	Attainment	No Federal Standard
Lead	Attainment	No Federal Standard
Hydrogen Sulfide	Unclassified	No Federal Standard
Visibility Reducing Particles	Unclassified	No Federal Standard

*****The District has been re-designated from Nonattainment to Nonattainment Transitional for the State designation for ozone occurs by operation of law. The change was confirmed by the CARB Board of Directors on March 25, 2010. [HSC §40925.5]

******The District has been re-designated to attainment for the annual $PM_{2.5}$ SAAQS. The change was adopted on the March 25, 2010, by the CARB Board of Directors.

5.3.2 Thresholds of Significance

As required by the California Clean Air Act, each district must prepare a plan to improve district air quality to meet the CARB and EPA standards. The FRAQMD and adjacent air quality management districts and air pollution control districts formed the Northern Sacramento Valley Planning Area (NSVPA) to address nonattainment air quality issues through a joint NSVPA Air Quality Attainment Plan. The NSVPA Air Quality Attainment Plan is multi-year strategy that requires a tri-annual review process to assess attainment progress. As a part of the NSVPA 2012 tri-annual review, each district considered adopting CEQA Air Quality Guidelines to reduce stationary source emissions of non-attainment air pollutants by identifying potential development projects that have adverse effects on air quality and identifying measures to mitigate for those significant effects. The FRAQMD has adopted Indirect Source Review Guidelines (FRAQMD, 2010) for Air Quality CEQA review of development projects within the district.

As found in the FRAQMD Guidelines, FRAQMD adopted Thresholds of Significance for key pollutants to assist Lead Agencies to determine in the Initial Study if a proposed project may have a significant impact on air quality. Table 2, below, lists those FRAQMD thresholds.

Table 2. FRAQMD Thresholds of Significance

Project Phase	NO_x	Reactive Organic Gases (ROG)	Particulate Matter less than 10 microns (PM_{10})	Particulate Matter less than 2.5 microns ($PM_{2.5}$)	Greenhouse Gases (CO_2, CH_4)
Operational	25 lbs/day	25 lbs/day	80 lbs/day	Not Established	Not Established
Construction	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year*	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year*	80 lbs/day	Not Established	Not Established

*NO_x and ROG Construction emissions may be averaged over the life of the project, but may not exceed 4.5 tons/year

FRAQMD recommends the Roadway Construction Emissions Model (RCEM 2013) to calculate emission from linear construction projects. The model calculates emissions based on fugitive dust and vehicle exhaust. FRAQMD distinguishes between two types of projects, Type 1 and Type 2. Type 1 projects are land use projects in which an operation phase exists, such as retail/commercial development or residential housing projects. Type 2 projects have no land use component such as roadway construction or levee projects. The proposed project of channel maintenance would be considered a Type 2 project (FRAQMD 2010).

Emissions Calculation

Emissions from the proposed project were estimated using the RCEM, the model used for linear construction projects. Inputs to the RCEM such as construction periods, equipment hauling emissions, worker commute emissions, fugitive dust and off-road equipment emissions were provided by DWR SMY staff. Table 3 shows the estimated emissions for the proposed project (RCEM, 2013). The proposed project will occur for approximately 1.5 months per year. The RCEM only allows increments of months to be input as a function of time, therefore the model was run using 2 months as the total construction period.. Appendix A, can be reviewed for full analysis of the RCEM data.

Table 3. Pollutants Emissions of Proposed Project

Project Phase	NO_x	Reactive Organic Gases (ROG)	Particulate Matter less than 10 microns (PM_{10})	Particulate Matter less than 2.5 microns ($PM_{2.5}$)	Greenhouse Gases (CO_2, CH_4)
FRAQMD Thresholds	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year*	25 lbs/day multiplied by project length, not to exceed 4.5 tons/year*	80 lbs/day	Not Established	Not Established
Project Construction Emissions Totals	19.5 lbs/day or .3 tons/yr*	2.0 lbs/day or <.1 tons/yr*	76.8 lbs/day	Not Established	Not Established
Significant?	No	No	No	NA	NA

*NOx and ROG Construction emissions may be averaged over the life of the project, but may not exceed 4.5 tons/year

5.3.2 Environmental Checklist and Discussion

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?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
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)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

a) Conflict with or obstruct implementation of the applicable air quality plan?
No Impact. FRAQMD has set Air Quality standards for the proposed project area. The proposed project would not conflict with or obstruct the air quality plan developed by FRAQMD.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
Less Than Significant Impact. The proposed project would involve the use of maintenance equipment, and exhaust fumes from this equipment are a direct source of the criteria pollutants CO, particulate matter between 2.5 and 10 micrometers in diameter (PM_{10} and $PM_{2.5}$), NO_x, SO_2, and reactive organic gas (ROG). However, criteria pollutants would be minimized by using properly tuned equipment that meets current emission standards. The proposed project would not violate air quality standards or contribute substantially to an existing air quality violation.

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)?
Less Than Significant Impact. The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the proposed project region

is in nonattainment under an applicable federal or State ambient air quality standards. The emission levels of criteria air pollutants from construction equipment were estimated using the RCEM. Project maintenance would not generate criteria air pollutants in quantities that exceed the threshold limits set by FRAQMD.

d) Expose sensitive receptors to substantial pollutant concentrations?
Less Than Significant Impact. The closest community is Plumas Lake, with the closest residence located within 300 feet of the WPIC, on the west side just north of Plumas Arboga Road. There are no hospitals or schools within close proximity (less than a ¼ mile) of the project. The FRAQMD Indirect Source Review Guidelines provide sensitive receptor examples to include schools, day care centers, park/playgrounds, hospitals or nursing centers, and residential dwelling units. The guidelines further state if a project is located within 1,000 feet of a sensitive receptor location, the impact should be included in an environmental analysis. The proposed project is located within 1,000 feet of a residence, and therefore, would expose sensitive receptors to substantial pollutant concentration (FRAQMD 2010).

The construction of the project would result in 1.5 months per year of intermittent diesel exhaust emissions from on-site equipment. Recommendations on levels of exposure for sensitive receptors by short-term toxic air contaminant emissions are limited as there is inadequate exposure-response information in acute health effect studies (EPA 2002). The project diesel emission exposure period and concentration was analyzed to assess the project's impact on sensitive receptors. The project's period of exposure is relatively short since the 1.5 month per year maintenance period is minimal in comparison to the 30-year exposure minimum that the Office of Environmental Health Hazard Assessment suggests scenario health risk assessments for individual cancer risk determination should be conducted (OEHHA 2012). Also, the project's concentration of diesel PM should not significantly affect nearby sensitive receptors since diesel PM pollutants, including ultra-fine particles, are highly dispersive and concentrations decrease as distance increases with dramatic decreases approximately 300 feet from sources (Zhu et al. 2002). Diesel emissions would be temporary, intermittent, and would dissipate rapidly with time and distance from the source, therefore the project would not significantly expose sensitive receptors to substantial pollutant concentrations. Additionally, the project will apply all applicable best management practices (BMPs) from the GGERP.

e) Create objectionable odors affecting a substantial number of people?
No Impact. The proposed project is limited to channel maintenance activities including debris removal and vegetation management. The proposed project would not create objectionable odors.

5.4 BIOLOGICAL RESOURCES

5.4.1 Environmental Setting

The area of the channel DWR has maintenance responsibility for is dominated by native and non-native herbaceous species with patches of Himalayan blackberry (*Rubus armeniacus*), riparian and willow scrub communities (Figure 2; Photographs 1-10). Native and non-native herbaceous species include mugwort (*Artemesia douglasiana*), creeping wildrye (*Elymus triticoides*), mustard (*Brassica nigra*), soft chess brome (*Bromus hordeaceous*), perennial ryegrass (*Festuca perennis*), yellow star-thistle (*Centaurea solstitialis*), wild chicory (*Cichorium intybus*), prickly lettuce (*Lactuca serriola*), pepperweed (*Lepidium latifolium*) and curly dock (*Rumex crispus*). The riparian and willow scrub communities are located along the low flow channel and occur in patches throughout the canal. The riparian community consist mainly of box elder (*Acer negundo*), Fremont cottonwood (*Populus fremontii*), Valley oak (*Quercus lobata*) arroyo willow (*Salix lasiolepis*), Goodding's black willow (*Salix gooddingii*), and an understory of California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), Himalayan blackberry and poison oak (*Toxicodendron diversilobum*). The willow scrub community is dominated by sandbar willow (*Salix exigua*).

Vernal pools, vernal swales and emergent marsh wetlands are scattered throughout the channel (see Photographs 7 and 8). There is a vernal pool just south of Plumas Arboga Road that contains multiple vernal pool indicative plant species including coyote thistle (*Eryngium castrense*), white navarretia (*Navarretia leucocephala*), popcorn flower (*Plagiobothrys stipitatus*), woolly marbles (*Psilocarphus brevissimus* var. *micranthus*), hyssop loosestrife (*Lythrum hyssopifolia*) and gum plant (*Grindelia camporum*). The vernal swales are dominated by goldfields (*Lasthenia glabrata*) and the emergent marshes are dominated by tule (*Schoenoplectus acutus*) and cattail (*Typha* sp.).

The low flow channels, located on the east and west sides, run parallel along WPIC and are lined with riparian vegetation, willow patches and emergent wetland vegetation. In addition, there are irrigation canals that cross the channel at multiple locations. Large tracks of the channel are actively farmed in rice or grazed by cattle. DWR does not anticipate working in these areas as vegetation growth is controlled by agricultural activities.

Beavers occur throughout WPIC. Beavers have burrowed into the levees; causing damage to the integrity of the levees, and beaver dams within the low flow channels and irrigation canals have led to localized flooding within the channel.

5.4.2 Description of Special Status Species and Their Habitat

DWR environmental staff have conducted several field reconnaissance visits to determine if special status species or habitats occur within or adjacent (within 1 mile) of the WPIC project site. Additionally, DWR environmental staff conducted a records search of the United States Fish and Wildlife Service (USFWS) species list for United States Geologic Survey (USGS) Nicolaus and Olivehurst 7.5-minute Quadrangles (USFWS 2013), CDFW's California Natural Diversity Database (CNDDB) for the project

area (CDFW 2014) and a California Native Plant Society (CNPS) online inventory of rare and endangered plants for the Nicolaus and Olivehurst 7.5-minute Quadrangles (CNPS 2013). Using the information obtained from the database records search and field reconnaissance surveys conducted in 2013 and 2014, DWR developed a list of special status species and habitat potentially occurring in the project area. Table 4 includes the scientific and common name for federal and State special status species, its status, a brief description of its habitat, and its potential for occurrence within the WPIC project area.

Table 4. USFWS and CNPS Special Status Species List for the Meridian USGS 7.5' Quadrangle (including CNDDB occurrences).

Sensitive Species/Habitat	Common Name	Status	Habitat	Potential for Occurrence
BIRDS				
Agelaius tricolor	Tricolored Blackbird	SE Emergency Listing	Central Valley; nest in dense colonies of cattails, tules, willows, blackberries, shrubs and grain crop fields. Breeds mid-April - late July.	Moderate: Within the channel, there are blackberry, tule, and sandbar willow patches that could provide nesting habitat for the species. There is foraging habitat within the channel and in the adjacent agricultural fields. There are several previous CNDDB sightings adjacent to WPIC channel.
Buteo swainsoni	Swainson's Hawk	ST	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands and irrigated pastures. Breeds March - late August.	Moderate: Within the channel, there is riparian habitat including large trees that could serve as nest trees for the species. There is foraging habitat within the channel and in the adjacent agricultural fields. There are several previous CNDDB sightings adjacent to WPIC channel.
Elanus leucurus	White-tailed Kite	FP	Nests in dense oak, willow or riparian habitat. Forages in open grasslands, emergent wetlands and agricultural lands. Breeds February –October.	Moderate: Within the channel, there is riparian habitat including larger trees that could serve as nest trees for the species. There is foraging habitat within the channel and in the adjacent agricultural fields. There are no CNDDB occurrences within 1- mile of the project site.
INVERTEBRATES				
Branchinecta lynchi	Vernal Pool Fairy Shrimp	FT	Valley-foothill grassland habitats with vernal pools.	Moderate: There is one vernal pool and several vernal swales at the project site that may provide habitat for this species. There are no CNDDB occurrences within 1-mile of the project site.
Desmocerus californicus dimorphus	Valley Elderberry Longhorn Beetle	FT	VELB occur in association with elderberry shrubs.	Low: No elderberry shrubs have been identified at or within 100 feet of the project site. There are no CNDDB occurrences within 1-mile of the project site.

Sensitive Species/Habitat	Common Name	Status	Habitat	Potential for Occurrence
Lepidurus packardi	Vernal Pool Tadpole Shrimp	FE	Unplowed grass-bottomed swales and pools; some mud-bottomed and highly turbid.	Moderate: There is one vernal pool and several vernal swales at the project site. There are no CNDDB occurrences at the project site but there is one within 1-mile of the project site, on the west side of the west levee.
Linderiella occidentalis	California Linderiella	NL	Vernal pools and other seasonal wetlands.	None: There is one vernal pool and several vernal swales at the project site. There are no CNDDB occurrences at the project site but there is one CNDDB occurrences within one-mile of the project site, on the west side of the west levee. This species used to be listed by USFWS as a Species of Concern. However the Sacramento USFWS no longer maintains a Species of Concern List therefore this species is not addressed further in this document.
PLANTS				
Monardella venosa	Veiny Monardella	CNPS 1B.1	Found on heavy clay soils in cistmontane woodland and valley/foothill grasslands.	None: Species thought to be extinct when surveys were conducted in the 1980's. Since 1992, one population is known to occur in Butte County and the one in Tuolomne County was relocated. There is continual disturbance throughout the channel.
Sagittaria sanfordia	Sanford's Arrowhead	CNPS 1B.2	Marshes and swamps in the Central Valley.	Low: There are emergent marshes scattered throughout the project site. There is one CNDDB occurrence from a 1955 collection that was mapped as best guess around 3 air miles northwest of the Rio Oso Post Office. There is continual disturbance throughout the channel.
REPTILES				
Emys marmorata	Western Pond Turtle	SSC	Permanent ponds, lakes, streams or permanent pools with intermittent streams. Require submerged logs, rocks, floating vegetation or mud banks for basking.	Low: There are well watered areas with an abundance of herbaceous aquatic vegetation that may provide habitat for Western Pond Turtle. There are no CNDDB occurrences within 1-mile of the project site. Minimal basking habitat exists at the project site.

Sensitive Species/Habitat	Common Name	Status	Habitat	Potential for Occurrence
Thamnophis gigas	Giant Garter Snake	FT/ST	Adequate water during the active season, emergent, herbaceous wetland vegetation, grassy banks and uplands for cover and winter refugia.	Moderate: There is active rice farming and multiple wetlands with tule, cattail and other emergent vegetation that may provide habitat for GGS within and adjacent to the channel. There is one CNDDB species occurrences just below the confluence of WPIC and Bear River, just south of the project area.
FISH				
Oncorhynchus mykiss	California Central Valley Steelhead Distinct Population Segment	FT/X	Central Valley rivers; Delta, San Francisco Bay estuary. Requires cold, freshwater streams with suitable spawning gravel.	Low: Critical habitat is designated in a segment of Bear River for this species. Bear River, which is located at the southern end of WPIC, is out of the project area. There is minimal to no access for fish into the low flow channels in WPIC from Bear River. Maintenance activities will have minimal impact on this species.
Oncorhynchus tshawytscha	Central Valley Spring-run Chinook Salmon Evolutionary Significant Unit	FT/ST/X	Central Valley rivers; Delta, San Francisco Bay estuary. Requires cold, freshwater streams with suitable spawning gravel.	Low: Critical habitat is designated in a segment of Bear River for this species. Bear River, which is located at the southern end of WPIC, is out of the project area. There is minimal to no access for fish into the low flow channels in WPIC from Bear River. Maintenance activities will have minimal impact on this species.

(FE) Federally Listed Endangered
(FP) State Fully Protected
(FT) Federally Listed Threatened
(SE) State Listed Endangered - CDFW
(ST) State Listed Threatened - CDFW
(SSC) Species of Special Concern - CDFW
(CNPS) California Native Plant Society
(X) Critical Habitat
(NL) Not Listed

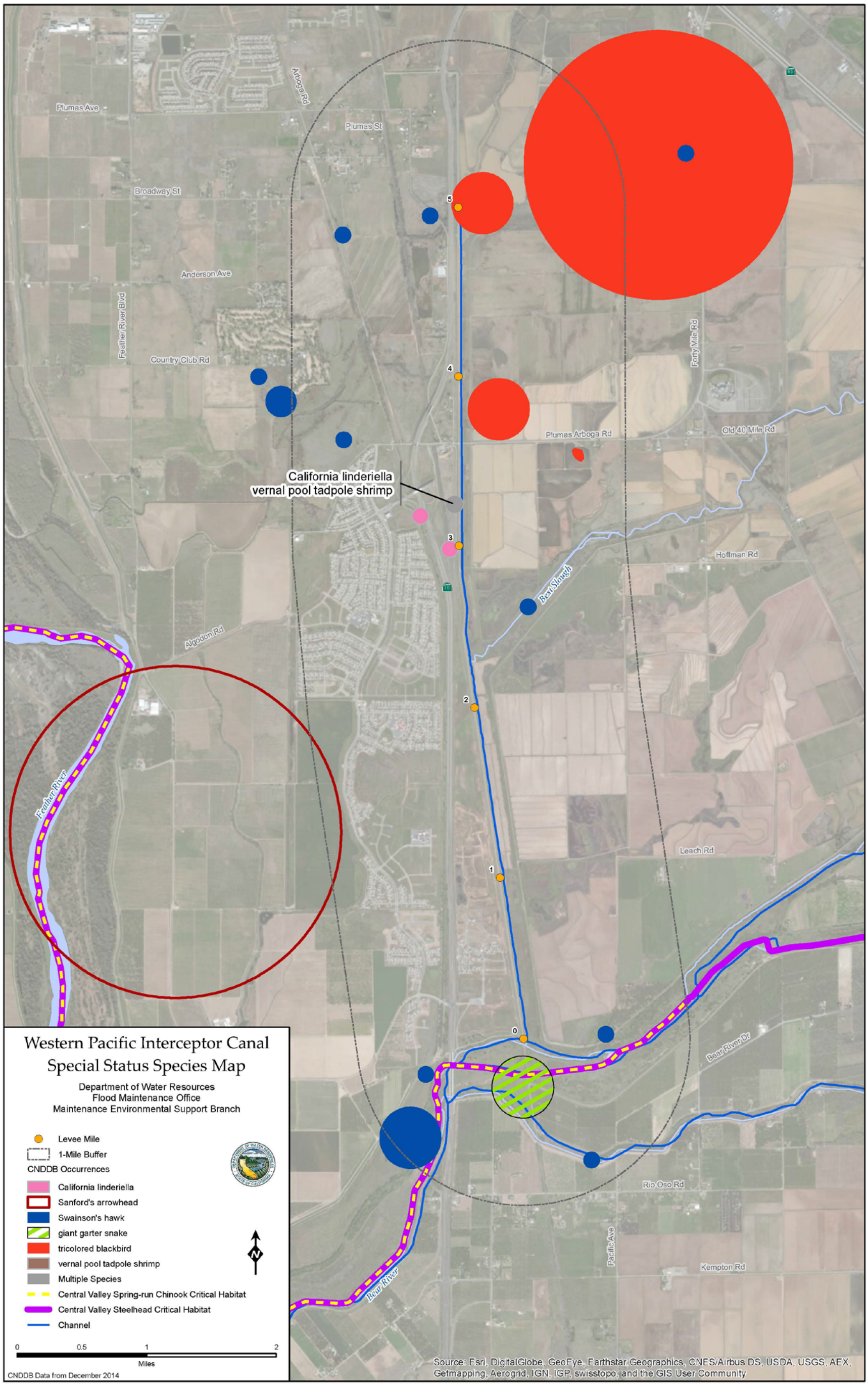

Figure 3. Western Interceptor Canal Special Status Species Map.

Based on the analysis summarized in Table 4, the following sections describe the special-status species with a potential to occur in the project area. Species that have no potential of occurrence are not included in the discussion.

5.4.3 Birds

5.4.3.1 Swainson's Hawk

The Swainson's Hawk is State listed as Threatened under the California Endangered Species Act (CESA). It is a long-range migratory raptor, flying as far south as Argentina, where it overwinters. The Swainson's Hawk returns to the Central Valley around March 1 and has usually selected a nest site by the March 31. In California, Swainson's Hawks range throughout the Central Valley, with the highest nesting densities found in Yolo, Sacramento and San Joaquin counties. Suitable habitat features include large open native grasslands, pastures, or agriculture fields with low to moderate vegetation heights for foraging (Schlorff and Estep 1993). The Swainson's Hawk starts nesting in April or May and continues until July through mid-September. Nesting habitats are in lone trees or utility poles in large flatlands with valleys, plateaus, large flood plains and low rolling hills (Wheeler 2003, Bloom 1980). In the Central Valley, the majority of Swainson's Hawks tend to nest within a mile of riparian habitat (Bloom 1980). The average clutch size is 2 to 3 eggs, with a range of 1 to 4, and the incubation period is about 28 days. The young fledge at about 38 to 46 days after hatching and typically remain with their family until fall migration in late August (Wheeler 2003).

There are several CNDDB occurrences within 1-mile of the project site. No active nests were observed in the project area during biological reconnaissance surveys. There is suitable nesting and foraging habitat throughout WPIC. Equipment and people conducting maintenance work may disturb nesting birds if active nests are present during maintenance activities, therefore there is a potential that the proposed project may impact Swainson's Hawk. The proposed project will remove vegetation within the channel which may benefit Swainson's Hawk by keeping areas open, thereby creating/maintaining foraging habitat.

5.4.3.2 Tricolored Blackbird

The Tricolored Blackbird is State listed as Endangered under CESA through an emergency listing process effective December 29, 2014 – June 30, 2015. The Tricolored Blackbird is a permanent resident of California, but makes extensive migrations during the breeding season and in winter. Major wintering concentrations occur in and around the Sacramento-San Joaquin River Delta and coastal areas. The Tricolored Blackbird typically breeds from mid-March to early August, but can breed as late as September to October as seen in some populations in the Central Valley and at Point Reyes (Beedy 2008). Tricolored Blackbird select breeding sites that include open accessible water, a protected nesting substrate (including either flooded or thorny/spiny vegetation and grain crop fields), and sites within a few kilometers of suitable foraging space that provides adequate insect prey (Beedy and Hamilton 1999). Satellite colonies can form near large nesting colonies if suitable habitat is present.

There are large patches of Himalayan blackberry bushes, sand bar willow and emergent marsh species growing at the project site that could potentially serve as nesting areas for the Tricolored Blackbird. Suitable foraging habitat occurs within and adjacent to the project site. No nesting colonies have been observed at the project site in the past two years. There are several CNDDB occurrences within 1-mile of the project site, including one large colony that was observed in 2012 to the east and immediately adjacent to the private levee, just north of Plumas-Arboga Road (Figure 3). The project site may provide nesting habitat for a satellite colony from the larger colonies located outside of the channel. The proposed project will remove vegetation within the channel, therefore there is a potential that the proposed project may impact the Tricolored Blackbird. Vegetation removal within the channel may also benefit the Tricolored Blackbird by keeping areas open, thereby creating foraging habitat.

5.4.3.3 White-tailed Kite

The White-tailed Kite is designated as a State Fully Protected species under California Fish and Game Code Section 3511. It is a year-round resident of the valley lowlands and coastal California (DFW 2015). White-tailed kites can be found in association with the herbaceous and open stages of a variety of habitat types, including ruderal habitats, open grasslands, meadows, emergent wetlands, and agricultural lands. Stick nests are built near the top of a dense willow, oak, or other tree stand located adjacent to foraging areas. Breeding occurs from February through October, during which time nesting birds are seldom observed more than 0.5 mile from an active nest (DFW 2015).

There are no CNDDB occurrences within 1-mile of the project site and White-tailed Kites were observed in the project area during biological reconnaissance surveys. Because there is suitable habitat for White-tailed Kite throughout WPIC, there is a possibility they are present at the project site. Equipment and people conducting maintenance work may disturb nesting birds if active nests are present during maintenance activities, therefore there is a potential that the proposed project may impact White-tailed Kite. The proposed project will remove vegetation within the channel which may benefit White-tailed Kite by keeping areas open, thereby creating/maintaining foraging habitat.

5.4.4 Reptiles

5.4.4.1 Giant Garter Snake

The Giant Garter Snake (GGS) is federally listed as Threatened under the federal Endangered Species Act (ESA), and State Threatened under CESA. The GGS is endemic to California. While historically the GGS ranged in wetlands throughout the Central Valley to the Sierra Nevada foothills, the current distribution ranges from Chico to central Fresno County (USFWS 2006).

The following are essential habitat components for the GGS: (1) adequate water during the snake's active season (early spring through mid-fall) to maintain dense populations of food organisms, such as fish and amphibians; (2) emergent, herbaceous wetland vegetation with muddy bottoms, such as cattails and bulrushes, for escape cover during

the active season; and (3) upland habitat with grassy banks and openings in waterside vegetation for basking during the active season and shielding from flood waters during the inactive winter (USFWS 2009). GGS is found in agricultural wetlands such as irrigation and drainage canals; rice fields; sloughs; ponds; small lakes; low gradient streams; and adjacent uplands in the Sacramento Valley (USFWS 2006). As a highly aquatic species, GGS is typically absent from large rivers for a number of reasons including presence of large predatory fish, dominance of adjacent uplands by thick riparian vegetation which lacks sufficient basking sites, relatively rapid flows, and heavy flooding (Brode 1988; Hansen 1988).

There is one CNDDB occurrence of GGS at the confluence of WPIC and the Bear River. Based on a survey conducted in July 2014 by DWR Environmental Scientists, portions of WPIC including the low flow channels and emergent marshes may provide suitable habitat for GGS. In addition, there is a large rice field within WPIC approximately one mile in length (from LM 1.0 – LM 2.2) that may provide habitat for GGS. Equipment such as a tractor and excavator will be used to remove vegetation and debris within the channel. These vehicles may be driving/parking near suitable habitat for GGS and operating buckets within low flow channels for removing debris and beaver dams during maintenance work, therefore there is a potential that the proposed project may impact GGS. The proposed project will thin out riparian vegetation and remove brush which may benefit GGS by reducing cover and opening up areas for foraging and basking.

5.4.4.2 Western Pond Turtle

The Western Pond Turtle is listed as a Species of Special Concern by the CDFW. Western Pond Turtle is found in Pacific-slope drainages to an elevation of approximately 4,600 feet. They are found along ponds, marshes, rivers, streams, and irrigation ditches that typically have muddy or rocky bottoms and grow aquatic vegetation. Suitable habitat includes well watered areas with an abundance of herbaceous aquatic vegetation (Stebbins 2003). The species requires basking sites such as downed partially submerged logs, mudbanks, or mats of floating vegetation. The species prefers habitats with stable banks and open areas to bask in, as well as underwater cover (i.e., refugia) provided by logs, large rocks, bulrushes, or other vegetation. Western Pond Turtle generally leaves the aquatic site only to reproduce and to hibernate, which typically takes place under leaf litter from October/November to March/April. Egg-laying typically occurs in May and June, and may take place up to 0.5 kilometers (roughly 1,640 feet) from water (Stebbins 2003).

There are no CNDDB occurrences within 1-mile of the project site and no Western Pond Turtles were observed in the project area during biological reconnaissance surveys. Because there is suitable habitat for Western Pond Turtle throughout WPIC, there is a possibility they are present at the project site. Equipment such as a tractor and excavator will be used to remove vegetation within the channel. These vehicles may be driving/parking near suitable habitat for Western Pond Turtle and operating buckets within low flow channels for removing debris and beaver dams during maintenance work, therefore there is a potential that the proposed project may impact Western Pond

Turtle.

5.4.5 Invertebrates

5.4.5.1 Valley Elderberry Longhorn Beetle

The Valley Elderberry Longhorn Beetle (VELB) is federally listed as Threatened by USFWS under ESA and critical habitat has been designated for the species. The VELB is endemic to California and is found only in association with its host plant, the elderberry shrub (*Sambucus nigra* subsp. *caerulea*). To function as habitat for the VELB, host elderberry shrubs must have stems that are 1 inch or greater in diameter at ground level. The beetles are rarely seen because they spend most of their life cycle as larvae within the stems of the shrubs. The presence of cylindrical exit holes approximately 0.25 inches (0.635 centimeters) in diameter in elderberry stems are indications of VELB habitat use. The holes may be located on the stems from a few inches to about 9 to 10 feet (2.7 to 3 meters) above the ground and are sometimes the only indicator of beetle presence (Barr 1991). In the Central Valley, the elderberry shrub is found primarily in riparian vegetation.

There are no CNDDB occurrences within 1-mile of the project site and no elderberry shrubs were observed in the project area during biological reconnaissance surveys. Because there is suitable habitat for elderberry shrubs throughout the WPIC, there is a possibility that shrubs are present at the project site. The proposed project will remove vegetation within the channel, therefore there is a potential that the proposed project may impact VELB.

5.4.5.2 Vernal Pool Fairy Shrimp

The Vernal Pool Fairy Shrimp is federally listed as Threatened by USFWS under ESA and critical habitat has been designated for the species. The Vernal Pool Fairy Shrimp is endemic to California and inhabits vernal pools in grass or mud bottomed flats or basalt flow depression pools in unplowed grasslands. Suitable habitat features include small vernal pools usually less than 0.05 acres in size at elevations from 33 to 4,003 feet (10 to 1,220 meters) with clear to tea colored water, low salinity, low dissolved solids, and water temperatures ranging from 40°F to 73°F (4.5°C to 23°C) (USFWS 2005). The life cycle of the Vernal Pool Fairy Shrimp is controlled by water temperature. At the optimal water temperature of 68°F (20°C), the Vernal Pool Fairy Shrimp can reach sexual maturity in 18 days and complete its full life cycle in 9 weeks. The Vernal Pool Fairy Shrimp is able to complete its full life cycle when water is available, however if water dries up, the eggs can remain dormant in the soil. The typical life span is 147 days (USFWS 2005).

There are no CNDDB occurrences within 1- mile of the project site. There is one vernal pool and several vernal swales within the project area that may provide habitat for Vernal Pool Fairy Shrimp. Because there is suitable habitat for Vernal Pool Fairy Shrimp, there is a possibility they are present at the project site.. Equipment such as a tractor and excavator will be used to remove vegetation within the channel. These vehicles may be driving near suitable habitat during maintenance work, therefore there is a potential that the proposed project may impact Vernal Pool Fairy Shrimp.

5.4.5.3 Vernal Pool Tadpole Shrimp

The Vernal Pool Tadpole Shrimp is federally listed as Endangered by USFWS under ESA and critical habitat has been designated for the species. The Vernal Pool Tadpole Shrimp is endemic to California. Suitable habitat features of the Vernal Pool Tadpole Shrimp include clear to turbid vernal pools 6.5 square feet to 88 acres in size from 10 to 500 feet (3 to 150 meters) in elevation with low dissolved solids, low alkalinity, pH between 6.2 and 8.5, and water temperatures between 50°F and 84°F (10°C and 29°C). After the first winter rains, dormant eggs can hatch within 4 days which repopulates the vernal pool. Vernal Pool Tadpole Shrimp mature in about 25 days and first reproduce at about 54 days. Some females can have up to 6 clutches with 32 to 61 eggs per clutch in one wet season. Optimal hatching temperature is between 50°F and 59°F (10°C to 15°C). Some eggs hatch immediately where as others remain dormant in the soil (USFWS 2005).

There is one CNDDB occurrence within 1-mile of the project site, found just west of the west levee of WPIC and south of Plumas Arboga Road. There is one vernal pool and several vernal swales within the project area that may provide habitat for Vernal Pool Tadpole Shrimp. Because there is suitable habitat for Vernal Pool Tadpole Shrimp and one CNNDB occurrence adjacent to the project site, there is a possibility they are present at the project site. Equipment such as a tractor and excavator will be used to remove vegetation within the channel. These vehicles may be driving near suitable habitat for during maintenance work, therefore there is a potential that the proposed project may impact Vernal Pool Tadpole Shrimp.

5.4.6 Plants

5.4.6.1 Sanford's Arrowhead (Sagittaria sanfordii)

Sanford's Arrowhead is listed by the CNPS at 1B.2 meaning it is rare, threatened or endangered in California and elsewhere. It grows in shallow, freshwater ponds, marshes and ditches at elevations lower than approximately 2,100 feet (650 meters) in association with the water plantain (*Alisma plantago-aquatica*), water primrose (*Ludwigia peploides*), and various species of cattail (*Typha* spp.). Sanford's arrowhead is a perennial rhizomatous herb that blooms from May through October. It is a member of the water plantain family (Alismataceae), and the rhizome of Sanford's arrowhead has been a source of food to native cultures and waterfowl. It is endemic to California, but has mostly disappeared from the Central Valley and is no longer present in southern California (NBC 2015).

There is one CNDDB occurrence from a 1955 collection that was mapped as best guess around 3 air miles northwest of the Rio Oso Post Office. No Sanford's arrowhead plants were observed in the project area during biological reconnaissance surveys. There are emergent marshes scattered throughout the project site that could provide suitable habitat for the Sanford's arrowhead. The proposed project will remove vegetation within the channel, therefore there is a potential that the proposed project may impact Sanford's Arrowhead.

5.4.7 Fish

Threatened anadromous fish species including Central Valley Steelhead and Central Valley Spring-run Chinook Salmon, and a mix of native and non-native fish species may be present within the project area.

5.4.7.1 Central Valley Steelhead Distinct Population Segment (DPS) (Oncorhynchus mykiss)

California Central Valley Steelhead Distinct Population Segment (DPS) is federally listed as Threatened under ESA and critical habitat has been designated for this species. Steelhead migrate from the ocean and historically inhabited large and small streams throughout the Sacramento-San Joaquin watershed. Currently populations are found in the Sacramento River and its tributaries; the Consumnes and Mokelumne Rivers; and the San Joaquin River and its tributaries. Adult Steelhead may be able to spawn multiple times and typically ascend rivers in August through March and spawn between December through April (CSU Chico 1998). Steelhead eggs hatch 19–80 days after spawning, depending on water temperature (warmer temperatures result in faster hatching times), and the young remain in the gravel for several weeks before emerging as fry (Raleigh et al. 1984). Steelhead juveniles spend between one to two years in freshwater before emigrating to the ocean as smolts (Reynolds et al. 1993). After spending two to three years in the ocean, Steelhead return to their natal streams to spawn as four- or five-year-olds.

Critical habitat is located immediately south of the project boundary in the Bear River. Steelhead may occur in the project area during maintenance work. During high water, attractant flows could draw anadromous fish into WPIC. When the water recedes, fish may get stranded in the low flow channels. The proposed project may remove debris and beaver dams from the low flow channels. This may impact Steelhead if they are present in the low flow channels during maintenance work. Removing beaver dams within the low flow channels may also benefit Steelhead by reducing potential fish stranding. There is no suitable spawning habitat located within the project area.

5.4.7.2 Central Valley Spring-run Chinook Salmon Evolutionarily Significant Unit (ESU) (Oncorhynchus tshawytscha)

Central Valley Spring-run Chinook Salmon ESU was listed as federally Threatened under the ESA and State Threatened under CESA. Critical Habitat has been designated for this species. Spring-run Chinook Salmon historically inhabited streams throughout the Sacramento-San Joaquin watershed but have been completely extirpated in the San Joaquin system. Spawning habitats and populations are limited to Butte, Deer, and Mill Creeks, which are tributaries to the Sacramento River (Moyle 2002). Adult spring-run Salmon migrate up the Sacramento River and tributaries to upstream spawning areas from February through June. Adults seek deep, cold-water holding pools to over-summer and spawn when water temperatures begin to cool between late August through October. Juveniles emerge from the gravel as early as late November. Trapping studies indicate that the majority migrate as fry or fingerlings, while a small portion of juveniles over-summer and emigrate as yearlings the next fall (McReynolds et al. 2005).

Rearing and outmigration occurs November through April. Yearling Salmon migrate from October through March, with peak migration in November (Hill and Webber 1999).

Critical habitat is located immediately south of the project boundary in the Bear River. Salmon may occur in the project area during maintenance work. During high water, attractant flows could draw anadromous fish into WPIC. When the water recedes, fish may get stranded in the low flow channels. The proposed project may remove debris and beaver dams from the low flow channels. This may impact Salmon if they are present in the low flow channels during maintenance work. Removing beaver dams within the low flow channels may also benefit Salmon by reducing potential fish stranding. There is no suitable spawning habitat located within the project area

5.4.2 Environmental Checklist and Discussion

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?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☒	☐	☐
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?	☐	☐	☒	☐

BIOLOGICAL RESOURCES Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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 with Mitigation Incorporated. Channel maintenance activities including debris removal and vegetation management could potentially have significant impacts to Swainson's Hawk, Tricolored Blackbird, White-tailed Kite, GGS, Western Pond Turtle, VELB, Vernal Pool Fairy Shrimp, Vernal Pool Tadpole Shrimp, Sanford's Arrowhead, Central Valley Steelhead and Central Valley Spring-run Chinook Salmon but the project will minimize these impacts to less than significant through avoidance and minimization measures listed later in this section.

Birds

Maintenance work could result in the loss of disturbance of active nests of special status bird species including Swainson's Hawk, Tricolored Blackbird and White-tailed Kite. In addition to these special status species, a number of other bird species could nest in the project vicinity including raptors and songbirds. The nests of all raptor species are protected under Section 3503.5 of the California Fish and Game Code. Migratory birds, their chicks, eggs and active nests are protected the federal Migratory Bird Treaty Act (MBTA) of 1918. The law states that it is unlawful to harm, harass, possess or kill a migratory bird (as identified under the MBTA), its eggs, chicks or active nest. Nest disturbance resulting from maintenance work has the potential to cause nest abandonment of the loss of eggs or chicks. The loss or disturbance of active nests would be potentially significant without mitigation measures in place. The proposed project will remove vegetation within the channel which may benefit Swainson's Hawk and Tricolored Blackbird by keeping areas open, thereby creating foraging habitat.

Reptiles

Maintenance work could result in the loss of suitable habitat and direct impact to reptiles including GGS and Western Pond Turtle. Equipment such as a tractor and excavator will be used to remove vegetation within the channel. Removal of vegetation may decrease the amount of suitable habitat to these species. These vehicles may be driving/parking near suitable habitat for GGS and Western Pond Turtle and operating

buckets within low flow channels for removing debris and beaver dams during maintenance work. The loss of suitable habitat and direct impact to GGS and Western Pond Turtle would be potentially significant without mitigation measures in place. The proposed project will thin out riparian vegetation and remove thick brush which may benefit GGS by reducing cover and opening up areas for foraging and basking.

Invertebrates

Maintenance work could result in direct impacts to invertebrates including VELB, Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp. The proposed project will remove vegetation within the channel. Although no elderberry shrubs (the sole host plant to VELB) were identified during biological reconnaissance surveys, there is suitable habitat for the elderberry shrub within the channel. Vegetation removal has the potential to damage undiscovered elderberry shrubs, if present in the area, and such damage could impact VELB. Equipment such as a tractor and excavator will be used to remove vegetation within the channel. These vehicles may be driving near suitable habitat of Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp during maintenance work, therefore there is a potential that the proposed project may impact Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp. The potential damage to elderberry shrubs and impacts to Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp would be potentially significant without mitigation measures in place.

Fish

Maintenance work could result in direct impacts to fish including Central Valley Steelhead, Central Valley Spring-run Chinook Salmon and other native/non-native fish species. The Bear River, located immediately south of the project area, is critical habitat for Central Valley Steelhead and Central Valley Spring-run Chinook Salmon. During high water, attractant flows could draw anadromous fish into WPIC. When the water recedes, fish may get stranded in the low flow channels. The proposed project will remove debris and beaver dams within low flow channels. This may impact Steelhead if they are present in the low flow channels during maintenance work. Removing beaver dams within the low flow channels may also benefit Steelhead by reducing potential fish stranding. The potential impact to Central Valley Steelhead and Central Valley Spring-run Chinook Salmon would be potentially significant without mitigation measures in place. There is no suitable spawning habitat located within the project area

Mitigation Measure BIO-1: Secure Applicable State and/or Federal Permits and Implement Permit Requirements

DWR will consult with State and federal environmental regulatory agencies and apply for and obtain all applicable environmental permits relevant to project work in order to reduce and/or minimize potential project impacts. DWR will comply with all terms and conditions of the agreed upon permits including measures to protect species and habitat.

Mitigation Measure BIO-2: Pre-Maintenance Environmental Awareness Training

A DWR Environmental Scientist will develop and administer an environmental awareness training program to all maintenance personnel before maintenance activities

begin. All maintenance staff working on the project will be required to attend an environmental awareness training given by the environmental staff on a yearly basis. The training will include information regarding species identification, natural history, habitat, mitigation measures of special status species (e.g. GGS, Swainson's Hawk, etc.) and sensitive habitats, including wetlands, which may occur on-site.

A qualified biologist will be on-call during maintenance activities. If a sensitive species is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the species will not be harmed.

Mitigation Measure BIO-3: Pre-Maintenance Wildlife, Bird and Plant Surveys
Pre-maintenance surveys for wildlife, bird nests (including song bird nests), special status plants, and/or sensitive habitats will be conducted by a qualified biologist prior to maintenance activities. Additionally, pre-construction surveys shall be implemented as follows:

- Swainson's Hawk and White-tailed Kite: If work is to be conducted during the nesting season (April 1-August 31), pre-maintenance surveys will be completed prior to maintenance work within one-half mile of the project site to identify any active nests (eggs or juveniles). Surveys will be completed in accordance with the Recommended Timing and Methodology for Swainson's Hawk nesting Surveys in California's Central Valley (SWA TAC 2000). If an active nest is identified, work will not occur within ¼ mile of the nest until the young has fledged the nest. If there is a nest within ¼ mile of maintenance work, DWR will consult with DFW.
- Tricolored Blackbird, raptors and other bird species: If work is to be conducted during the nesting season (February – early August), pre-maintenance surveys will be completed prior to maintenance work within 250 feet of the project site. If an active nest is identified, impacts will be avoided by establishment of appropriate buffers to minimize the impacts. The size of the buffers may be adjusted, depending on the project activity and stage of the nest, if a qualified biologist determines that activity within a reduced buffer would not be likely to adversely affect the adults or their young. No trees or other vegetation with an active nest will be removed until a qualified biologist confirms that the nest is no longer active.
- VELB: A qualified biologist will survey the vegetation prior to removal to determine if elderberry shrubs are present. If there are elderberry shrubs, the shrubs will be flagged and avoided and conservation measures will be implemented according to protocols in the USFWS Conservation Guidelines for the Valley Elderberry Longhorn Beetle (July 9, 1999).
- Within 24 hours prior to construction activities, the project area shall be surveyed for GGS by a qualified biologist. If a GGS is identified within the maintenance area, work will not proceed until the snake has moved out of the maintenance area on its own.
- Western Pond Turtle: A qualified biologist will survey Western Pond Turtle habitat before work commences within the project area. If a Western Pond Turtle is

identified within the maintenance area, work will not proceed until the turtle has moved out of the work area on its own.

Mitigation Measure BIO-4: Avoid and Minimize Impacts to Giant Garter Snake

- Mower height will be set to 6 inches off the ground and mowing can only occur during the GGS active season (May 1 – October 1).
- Environmental Staff will monitor maintenance work during beaver dam removal. If a GGS is identified, all work will stop until the snake has left the site on its own.
- If vehicles will be left onsite overnight, they will be surveyed in the morning to see if GGS are present. If a GGS if found, it will be left alone and maintenance staff will wait to start up the engine until the snake has left the site on its own.
- Keep speeds to 20 mph on roadways within the project area adjacent to GGS habitat.

Mitigation Measure BIO-5: Avoid and Minimize Impacts to Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp

Maintenance equipment will be required to stay at least 250 feet away from potential habitat of Vernal Pool Fairy and Tadpole Shrimps. Potential habitat at the project site includes the vernal pool south of Plumas Arboga Road and Vernal Swales that are scattered throughout the project site. A DWR Environmental Scientist will provide SMY staff with a map of the channel including delineation of the wetlands and a 250 foot buffer around the wetlands to avoid. Wetlands and 250 foot buffers may be flagged by a qualified biologist to assist SMY staff in avoiding these sensitive areas.

Mitigation Measure BIO-6: Avoid and Minimize Impacts to Central Valley Spring-run Chinook Salmon, Central Valley Steelhead and Other Native/Non-native Fish Species

Environmental Staff will monitor maintenance work during beaver dam and debris removal in the low flow channels. If a fish is identified near the dam or debris removal area, all work will stop until the fish has left the site on its own.

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?

Less Than Significant. The proposed project consists of debris removal and vegetation management. Maintenance work will be temporary and will only occur for up to 6 weeks each year for the duration of the project. Vegetation management is necessary to maintain channel capacity and to provide adequate water flow through the channel.

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 Impact With Mitigation Incorporated. The proposed project consists of debris removal and vegetation management, including controlling vegetation and removing debris and beaver dams within the low flow channels and irrigation canals

to maintain flow capacity. Maintenance activities would consist of primarily of removing low growing vegetation, small trees (less than 4 inches DBH) and limbing up of trees greater than 4 inches DBH up to 6 feet above the ground surface. No direct removal, filling, hydrological interruption, or other means will occur as part of this project.

The proposed project would use maintenance equipment that will be driving in the channel and may be stored in the dry portions of the channel. There is one vernal pool, vernal swales and emergent marshes within the WPIC channel. Mitigation Measure BIO-6, which states no equipment can be driven or stored within the wetted portion of the channel including wetlands, would ensure that the proposed project would not have an impact on federally protected wetlands as defined by Section 404 of the Clean Water Act. Maintenance work will not trigger the need for a permit under Section 404 of the Clean Water Act because vehicles will avoid wetlands, all vegetation removal will occur above ground level and debris removal within low flow channels and wetlands will not redeposit 'dredged' materials into the water other than incidental fallback, which does not constitute fill (Section 404 33CFR 323).

Mitigation Measure BIO-7: Avoidance of Wetlands by Maintenance Equipment
Maintenance equipment will avoid driving in the wetted portions of the channel, vernal pools, vernal swales and emergent wetlands. The staging area for equipment storage will be located outside of the wetted portions of the channel, vernal pools, vernal swales and emergent wetlands.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
Less Than Significant With Mitigation Incorporated. The project site provides nesting and habitat for numerous native wildlife species. The proposed project may have a temporary effect on the movement of wildlife species during maintenance work. Beavers occur throughout WPIC. Beavers have burrowed into the levees; causing damage to the integrity of the levees, and beaver dams within the low flow channels and irrigation canals have led to localized flooding within the channel. Wildlife damage management activities including rodent control may be conducted as part of the proposed project. DWR will either contract with United States Department of Agriculture Wildlife Services and/or obtain appropriate permits to conduct rodent control activities. Mitigation Measures BIO-1 and BIO-3 would ensure that the proposed project would not have a significant impact on established or movement of native resident or migratory wildlife species.

Mitigation Measure BIO-1: Secure Applicable State and/or Federal Permits and Implement Permit Requirements

Mitigation Measure BIO-3: Pre-Maintenance Wildlife, Bird and Plant Surveys

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

Less Than Significant. Yuba County has a policy in their General Plan stating "building placement, grading, and circulation should be planned to retain as much existing native vegetation as feasible, with a priority on preserving existing oak trees that have a DBH of 6 inches or greater and all other trees that have a DBH of 30 inches or greater" (YCGP, 2011). The proposed project will conduct vegetation maintenance work that may include removal of small trees, less than 4 inches DBH. Native trees greater than 4 inches DBH may be limbed up to 6 feet from the ground surface and the crowns will be retained. All native trees will be retained onsite within the channel when feasible. No existing oak trees greater than 4 inches DBH will be removed as part of the project, therefore there is less than significant impact.

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. Although an HCP/NCCP (plan) that would encompass the project area is under development there is currently no plan in effect (Yuba Sutter RCP 2012). Therefore there is no conflict between the proposed project and an adopted plan.

DWR has several plans and programs in place or that are in the planning process. The Central Valley Flood Protection Plan (CVFPP), developed by DWR in 2012, is a critical document that guides management of flood risk along the Sacramento River and San Joaquin River systems. The CVFPP proposes a systemwide investment approach for sustainable, integrated flood management in areas currently protected by facilities of the State Plan of Flood Control. As part of the CVFPP, DWR developed a Conservation Framework that focuses on promoting ecosystem functions and multi-benefit projects. The Conservation Framework identifies opportunities for integrated flood management projects that can, in addition to improving public safety, enhance riparian habitats, provide connectivity of habitats, restore riparian corridors, improve fish passage, and reconnect the river and floodplain. The proposed project provides multiple benefits within WPIC. It will maintain vegetation and remove debris to reduce the risk of flood and concurrently, remove invasive species and increase habitat for several special status species. DWR's Feather River Regional Environmental Planning Program is developing an HCP which will cover flood management activities including those in the proposed project area. The regional permitting effort's holistic approach will focus on integrating ecosystem improvements into flood risk management projects. DWR FMO is in the process of developing an Evaluation of Environmental Permitting for Operation and Maintenance (EEPOM). EEPOM will develop a strategy for comprehensive environmental compliance for facilities (e.g. levees, channels, and structures) that FMO is responsible for maintaining within the Sacramento River Flood Control Project. There is no conflict between the proposed project and any of the above plans or programs.

5.5 CULTURAL RESOURCES

5.5.1 Environmental Setting

A record search was conducted on June 5, 2014 by North Central Information Center of the California Historical Resources Information System at Sacramento State University (NCIC File #YUB-14-18). The search encompassed a ¼ mile radius around the proposed project area. One cement bridge (P-58-001373) was recorded within the proposed project area. Three resources were recorded outside the proposed project area, but within a quarter mile. Those resources are the Western Pacific Railroad (P-58-001372), a Western Pacific Railroad transformer (P-58-001744), and a PG&E electrical transmission tower (P-58-002580). No prehistoric sites have been recorded within the ¼ mile search radius.

Three surveys have been conducted within portions of the proposed project area and eight more have been conducted within a quarter mile of the proposed project area. Those in the proposed project area have only covered a small area in the southernmost extent near the Bear River and the other two were around and near where the Plumas Arboga Road crosses the canal. The majority of the canal has not been surveyed for cultural resources.

The field survey was conducted on July 21, 2014 by DWR Archaeologist Wendy Pierce. Multiple observations were made during the survey. The channel interior is much higher than the ground level outside the channel, which is most pronounced near the southern end of the proposed project area south of the Dry Creek and becomes less obvious north of the Plumas Arboga Road Bridge. This project area cannot be surveyed as long as access is limited. In addition, when the survey was completed the northern end of the proposed project area was wet and marshy and not surveyable.

Based on the cultural resources clearance written for the proposed project, provided by Wendy Pierce on August 25, 2014, the historic bridge identified as a historic resource was built sometime between 1909 and 1939. The bridge was recommended as ineligible for the California Register of Historical Resources or the National Register of Historic Place.

The current proposed project would not have an effect on the bridge and is not likely to impact any unknown archaeological sites. The proposed project as stated in the project description may be considered cleared for cultural resources under CEQA. Should any of the proposed project plans be modified to include work that would disturb the ground surface in areas other than that reviewed, additional studies would be necessary.

5.5.2 Environmental Checklist and Discussion

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?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?
No Impact. No historical resources are present in the proposed project area.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?
Less Than Significant With Mitigation Incorporated. No archaeological resources are known to exist in or around the proposed project site. The probability that proposed project implementation could impact buried archaeological deposits is considered to be low given that much of the proposed project area is covered in deep sediment and proposed project activities would be minimally ground disturbing. However, areas near rivers and creeks may be sensitive for buried sites that can't be identified during surface survey.

Mitigation Measure CULT-1: If historical or unique archaeological resources are accidentally discovered during maintenance activities, all work would temporarily cease in the immediate area until the findings can be assessed by a qualified archaeologist and an appropriate course of action can be determined if necessary, in consultation with the State Historic Preservation Officer. Work may continue on other parts of the proposed project while evaluation and mitigation takes place (CEQA Guidelines §15064.5 [f]). If the find is determined to be an historical or unique archaeological resource, sufficient time allotment will be allowed for implementation of avoidance measures or appropriate mitigation.

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

No Impact. The proposed project is located in Holocene aged sediments which formed after the end of the last glacial maximum. Project activities would not extend past the Holocene alluvium into older geologic units. Thus, there is no possibility of the presence of paleontological resources. The proposed project is also in a location that is similar geologically to the surrounding area and is not unique geologically.

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

Less Than Significant With Mitigation Incorporated. It is not anticipated that proposed project implementation would disturb any human remains, including those interred outside of formal cemeteries. The presence of human remains is unlikely given that no archaeological sites have been identified in the proposed project area and there would be minimal ground disturbance.

Mitigation Measure CULT-2: If human remains are found, such remains would be subject to the provisions of California Public Resources Health and Safety Code Section 7050.5-7055. The requirements and procedures would be implemented, including immediately stopping work in the vicinity of the find and notifying the County Coroner. A DWR archaeologist would also need to be contacted immediately. The process for notification of the California Native American Heritage (NAHC) and consultation with the individual(s) identified by the NAHC as the “most likely descendent” is set forth in Section 5097.98 of the California Public Resources Code. Work in the vicinity of the find can restart after the remains have been investigated and appropriate recommendations have been made for their treatment and disposition.

5.6 GEOLOGY AND SOILS

5.6.1 Environmental Setting

The WPIC is located in Yuba County north of Rio Oso and just east of California State Route 70. The WPIC is part of the Sacramento River Flood Control Project. The proposed project footprint consists of the flowage area from the confluence of the Bear River to five miles upstream. The primary soils in this vicinity as identified by the United States Department of Agriculture (USDA) National Resource Conservation Service (www.ca.nrcs.usda.gov) Soil Survey of Yuba County California (USDA, 2014) are San Joaquin loam and Hollenbeck silty clay loam. San Joaquin loam is defined as a thermic Abruptic Durixeralf fine present on 0 to 1 percent slopes. The San Joaquin is well and moderately well drained, medium to very high runoff with very slow permeability. Some areas are subject to rare or occasional flooding. Major uses for San Joaquin soil include livestock grazing, crops such as small grains, rice, vineyards, fruits, nuts and irrigated pasture. Hollenbeck silty clay loam is defined as a Chromic Haploxererts fine present on 0 to 1 slopes. The Hollenbeck is moderately well draining, slow runoff with slow permeability. Major uses for the Hollenbeck soil typically are used to grow irrigated crops such as tomatoes, sugar beets, beans, small grains and irrigated pasture.

The DOC, California Geological Survey (CGS) released revised Alquist-Priolo (AP) Maps on September 21, 2012. Based on the AP Map issued by the State Geologist, there are no fault zones or active faults located on or in the immediate vicinity of the proposed project site.

The Bear Mountain Fault System, associated with the Foothills Fault System, is the closest fault system near the proposed project, which is located in the western Sierra Nevada. As found on the AP maps for the Bangor Quadrangle, the northern Bear Mountain fault zone includes the Swain Ravine, Spenceville and Dewitt segments. The closest fault segment, the Swain Ravine Fault is situated approximately 10 miles northeast of the proposed project site. The Cleveland Hills Fault is a north trending, west-dipping normal fault believed to be an extension of the Swain Ravine (CDOC 1983).

The Bear River fault zone is a result of eastward plate convergence and subduction in the early Mesozoic. Within the Swain Ravine fault zone, the Cleveland Hills Fault is situated south of Oroville, east of Palermo and is a subtle west facing scarp coincident with the 1975 Oroville Earthquake. The Oroville earthquake, measuring Mw 5.7 created surface rupture (normal-down to the west, max vertical 4-5 centimeters) along the Cleveland Hills Fault. Oblique right-lateral slippage of 3 to 4 centimeters was also measured. Woodward Clyde (CDOC 1983) estimated the rate of slip at approximately 0.005 millimeters per year.

Liquefaction is a soil strength and stiffness loss phenomenon that typically occurs in loose, saturated, cohesionless soils as a result of strong ground shaking during earthquakes. The potential for liquefaction at a site is usually determined based on the

results of a subsurface geotechnical investigation and the groundwater conditions beneath the site. Hazards to structures associated with liquefaction at a site include bearing capacity failure, lateral spreading, and differential settlement of soils below foundations, which can contribute to structural damage or collapse.

5.6.2 Environmental Checklist and Discussion

GEOLOGY AND SOILS Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

GEOLOGY AND SOILS Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?

No Impact. Yuba County is not an Earthquake Fault Zone, and there are no known faults in the proposed project area. No major ground disturbance will occur as part of the proposed project. The proposed project would have no impact on earthquake faults, ground shaking, seismic-related ground failure, including liquefaction, or landslides. The proposed project vicinity is dominated by agriculture and there are no structures located within the WPIC.

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

Less Than Significant Impact. Proposed activities consist of channel maintenance including debris removal and vegetation management. Removal of vegetation would maintain design flows to ensure water conveyance. Areas within the channel may require strip discing to manage vegetation. This may loosen up topsoil and potentially lead to an increase of soil erosion or loss of topsoil. The potential soil erosion or loss of topsoil would be minimal and not substantial.

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?

No Impact. The proposed project footprint has multiple soil types within the approximate 433 acres (USDA 2014). The majority of the soil consists of San Joaquin loam, 0 to 1 percent slopes and Hollenbeck silty clay loam, 0 to 1 slopes. Channel maintenance may include disking, but would not include subsurface work or digging. These soils would not cause instability which result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

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?

No Impact. The proposed project is not located within expansive soils. The proposed project consists of channel maintenance including debris removal and vegetation management of the WPIC and would not create substantial risks to life or property.

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

No Impact. Proposed activities consist of channel maintenance including debris removal and vegetation management of the WPIC. There are no residences located within the WPIC footprint and the proposed project does not involve septic tanks or the use of sewer systems.

5.7 GREENHOUSE GAS EMISSIONS

5.7.1 Environmental Setting

In May 2012, DWR adopted the DWR Climate Action Plan-Phase I: Greenhouse Gas Emissions Reduction Plan (GGERP), which details DWR's efforts to reduce its greenhouse gas (GHG) emissions consistent with Executive Order S-3-05 and the Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32). DWR also adopted the Initial Study/Negative Declaration prepared for the GGERP in accordance with the CEQA Guidelines review and public process. Both the GGERP and Initial Study/Negative Declaration are incorporated herein by reference and are available at: http://www.water.ca.gov/climatechange/CAP.cfm. The GGERP provides estimates of historical (back to 1990), current, and future GHG emissions related to operations, construction, maintenance, and business practices (e.g. building-related energy use). The GGERP specifies aggressive 2020 and 2050 emission reduction goals and identifies a list of GHG emissions reduction measures to achieve these goals (DWRCAP, 2012) (DWRIS, 2012).

DWR specifically prepared its GGERP as a "Plan for the Reduction of Greenhouse Gas Emissions" for purposes of CEQA Guidelines section 15183.5. That section provides that such a document, which must meet certain specified requirements, "may be used in the cumulative impacts analysis of later projects." Because global climate change, by its very nature, is a global cumulative impact, an individual project's compliance with a qualifying GHG Reduction Plan may suffice to mitigate the project's incremental contribution to that cumulative impact to a level that is not "cumulatively considerable." (See CEQA Guidelines, § 15064, subd. (h)(3).)

More specifically, "later project-specific environmental documents may tier from and/or incorporate by reference" the "programmatic review" conducted for the GHG emissions reduction plan. "An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project." (CEQA Guidelines § 15183.5, subd. (b)(2).)

As found in DWRs Climate Change Committees Climate Action Plan Phase I: Greenhouse Gas Emissions Reduction Plan Implementation Procedures: II.A, projects that include activities such as maintenance undertaken by the Flood Maintenance Yards using DWR staff and equipment are included and accounted for as part of DWR's verified emissions reporting to the Climate Registry by DWR's State Water Project Power and Risk Office and need not to be accounted for again for CEQA purposes. The proposed project would have all labor done by DWR staff, therefore, determination of consistency is required by filling out the *GGERP Consistency Determination Form For Projects Using Only DWR Staff and Equipment* and submitting it to the Climate Change Committee before release of this WPIC Maintenance Project MND. Consistent with these requirements, the submitted GGERP Consistency Determination Form is attached

as Appendix B (DWRPI, 2014).

BMPs suggested in the GGERP that will be implemented on this project, are listed below. These GHG emissions reduction measures would be incorporated into the implementation of the maintenance of the WPIC when applicable. Those not listed are not applicable to the project.

- BMP 1. Evaluate project characteristics, including location, project work flow, site conditions, and equipment performance requirements, to determine whether specifications of the use of equipment with repowered engines, electric drive trains, or other high efficiency technologies are appropriate and feasible for the project or specific elements of the project.
- BMP 2. Limit deliveries of materials and equipment to the site to off peak traffic congestion hours (BMP 6 in GGERP).
- BMP 3. Minimize idling time by requiring that equipment be shut down after five minutes when not in use (as required by the State airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and provide a plan for the enforcement of this requirement (BMP 7 in GGERP).
- BMP 4. Maintain all construction equipment in proper working condition and perform all preventative maintenance. Required maintenance includes compliance with all manufacturer's recommendations, proper upkeep and replacement of filters and mufflers, and maintenance of all engine and emissions systems in proper operating condition. Maintenance schedules shall be detailed in an Air Quality Control Plan prior to commencement of construction (BMP 8 in GGERP).
- BMP 5. Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every two weeks for equipment that remains on-site. Check vehicles used for hauling materials off-site weekly for correct tire inflation. Procedures for the tire inflation program shall be documented in an Air Quality Management Plan prior to commencement of construction (BMP 9 in GGERP).

<u>Determination</u>
Based on the analysis provided in the GGERP and the demonstration that the proposed project is consistent with the GGERP (as shown in the attached Consistency Determination Form and suggested BMPs), DWR as the lead agency has determined that the proposed project's incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs is less than cumulatively considerable and, therefore, less than significant.

5.7.2 Environmental Checklist and Discussion

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

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

Less Than Significant. Based on the analysis provided in the GGERP and the demonstration that the proposed project is consistent with the GGERP (as show in the attached Consistency Determination Form) (Appendix B). DWR as the lead agency has determined that the proposed project's incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs is less than cumulatively considerable and, therefore, less than significant.

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

No Impact. DWR's GGERP is in compliance with all applicable plans and policies. The proposed project is in compliance with the GGERP and suggested BMPs. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

.

5.8 HAZARDS AND HAZARDOUS WASTE

5.8.1 Environmental Setting

State agencies regulating hazardous materials are the California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES). The California Highway Patrol and California Department of Transportation (DOT) enforce regulations for hazardous materials transport. Within the Cal/EPA, the California Department of Toxic Substances Control (DTSC) has primary regulatory authority for hazardous materials regulation enforcement. State hazardous waste regulations are contained primarily in the California Code of Regulations Title 22. The California Occupational Health and Safety Administration has developed rules and regulations regarding worker safety around hazardous and toxic substances.

The DTSC defines the Hazardous Waste and Substance Sites List (also known as the "Cortese Sites" List) as a planning document used by State, local agencies and developers to comply with the CEQA by providing information about the location of hazardous material sites. The WPIC project area was researched for Cortese Sites using the EnviroStor software program provided on DTSC's website (DTSC, 2014). No Cortese Sites were located within or immediately adjacent to the WPIC project footprint (DTSC, 2014)..

5.8.2 Environmental Checklist and Discussion

HAZARDS AND HAZARDOUS WASTE 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?	☐	☒	☐	☐
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?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

HAZARDS AND HAZARDOUS WASTE Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) 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?	☐	☐	☐	☒

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

Less Than Significant With Mitigation Incorporated. There are no known hazardous materials within the project area based on a record search of Cortese Sites. A Phase I Environmental Site Assessment was not conducted. During the maintenance period, diesel fuel and oil may be used. The project site would not require long-term storage, treatment, disposal, or transport of hazardous materials. Management activities at WPIC may include the use of herbicides to control vegetation. Herbicides may impact the environment through their use at the project site.

Mitigation Measure HAZ-1: Herbicides will be applied in accordance with California Department of Pesticide Regulation

All herbicide applications will follow California Department of Pesticide Regulation (DPR) regulations and guidelines. A licensed Pest Control Advisor will determine

appropriate pest management recommendations including timing, type of herbicide and application rate. Applicators will be certified or trained according to DPR regulations.

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 With Mitigation Incorporated. Maintenance vehicles on site may require emergency maintenance that may result in the release of oil, diesel, transmission fluid or other materials. These materials would not be used in quantities or be stored in a manner that would pose a significant hazard. Herbicides may impact the environment through their use at the project site. Implementation of Mitigation Measure HAZ-1 will reduce this impact to less than significant.

Mitigation Measure HAZ-1: Herbicides will be applied in accordance with California Department of Pesticide Regulations (DPR)

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
No Impact. There are several schools within the community of Plumas Lake, but none are located within one-quarter mile of the project site. The proposed project would not create hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste.

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. Review of the DTSC EnviroStor database determined that the project site is not included on any lists of hazardous material sites. The proposed project would not create a significant hazard to the public or the environment.

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?
No Impact. The closet public use airport, Yuba County Airport, is located in Olivehurst, approximately 3-miles from the project area. The proposed project would not result in a safety hazard for people residing or working in the project area.

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. The closest private use airport is located approximately 5 miles south of the project site. The proposed project would not result in a safety hazard for people residing or working in the project area.

g) Impair implementation of or physically interfere with an adopted emergency

response plan or emergency evacuation plan?
No Impact. The proposed project consists of channel maintenance and would not impair or physically interfere with an adopted emergency response or evacuation plan and DWR personnel are required to be trained in emergency response and spill containment.

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 project would not expose people or structures to a significant risk of loss, injury or death due to wildland fires. As a standard safety practice during maintenance activities, SMY would have fire prevention equipment on site including fire extinguishers and shovels.

5.9 HYDROLOGY AND WATER QUALITY

5.9.1 Environmental Setting

The Bear River Drainage area is 550 square miles, with the headwaters originating in the vicinity of Emigrant Gap and Lake Spaulding in the Sierra Nevada. Main tributaries of the Bear River are Greenhorn, Wolf, Rock, Dry Creek and WPIC. Large water bodies along the Bear River include Rollins Reservoir, Camp Far West Reservoir, Dutch Flat Afterbay and Drum Afterbay. Bear River flows downstream of Camp Far West Reservoir are derived from Dry Creek and WPIC.

Flows in the WPIC are derived from Reeds and Hutchinson Creeks, Best Slough/North Dry Creek, and agricultural runoff (Jones and Stokes, 2004). The WPIC conveys water to the Bear River (CVFMPP, 2010). Based on 1957 design profiles, the channel bottom elevation is approximately 47.5 feet (LM 5.0) to 32.5 feet (LM 0 – at the confluence of the Bear River). Current conditions are likely higher due to sedimentation throughout the channel. Design channel capacity is 10,000 cfs between Best Slough/North Dry Creek and Bear River, and up to 5,000 cfs between Reed Creek and Best Slough/North Dry Creek and (ACOE, 1957).

As found in the Federal Emergency Management Agency, Flood Insurance Rate Maps, the WPIC footprint is located entirely in the AE flood zone. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so the 1% annual chance flood can be carried without substantial increases in flood heights (FEMA, 2014).

5.9.2 Environmental Checklist and Discussion

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?	☐	☒	☐	☐
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)?	☐	☐	☐	☒

HYDROLOGY AND WATER QUALITY Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) 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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

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

Less Than Significant Impact With Mitigation Incorporated. The proposed project consists of debris removal, vegetation management and when needed, wildlife management. Maintenance activities may include strip disking and mowing sections of

vegetation parallel to the flow of the water. The SMY may control vegetation within the low flow channels and irrigation canals to maintain flow capacity. Non-native vegetation may be removed to improve native habitat. Non-native material that is removed would be disposed of properly.

The proposed project would use maintenance equipment that will be driving in the channel and may be stored in the dry portions of the channel. Mitigation Measure BIO-7 would ensure that the proposed project would not violate water quality standards or discharge requirements.

Mitigation Measure BIO-7: Avoidance of Wetlands by Maintenance Equipment

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 consists of maintenance activities within the WPIC and would not draw from a groundwater aquifer. The proposed project would not deplete groundwater supplies or interfere with groundwater recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
Less Than Significant. The proposed project would conduct channel maintenance activities including debris removal and vegetation management. Maintenance of the WPIC would ensure proper water conveyance which would help facilitate the existing drainage pattern and not cause substantial erosion or siltation on- or off-site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
No Impact. The proposed project would conduct channel maintenance activities including debris removal and vegetation management. Maintenance of the channel would increase channel capacity and ensure proper water conveyance which would help facilitate the existing drainage pattern and not cause a substantial increase to the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
No Impact. The proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

f) Otherwise substantially degrade water quality?
Less Than Significant. The proposed project consists of debris removal and vegetation management. Maintenance activities would consist primarily of mowing and possibly strip disking sections of vegetation. The SMY may control vegetation control within the low flow channels and irrigation canals to main flow capacity. Non-native vegetation may be removed to improve native habitat. None-native material that is removed would be removed of properly. Channel maintenance would not 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 consists of debris removal and vegetation management. The proposed project would not result in house placement within the 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
No Impact. The proposed project consists of debris removal and vegetation management. The project would not include placement of structures and therefore would not impede or redirect flood flows in the 100-year flood hazard area.

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. The proposed project consists of debris removal and vegetation management. Maintenance of the channel would increase channel capacity and ensure proper water conveyance. The proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam.

j) Inundation by seiche, tsunami, or mudflow?
No Impact. The proposed project is located in a geographically flat region of Yuba County and is not located in a coastal area. The proposed project would not expose people or structures to inundation by tsunami, seiche or mudflow.

5.10 LAND USE PLANNING

5.10.1 Environmental Setting

Yuba County has three physiographic regions; 1. The valley floor is the most developed part of the County and is home to most of its residents and businesses, with the County's cropland focused on fertile soils of the valley floor. 2. The foothills have some developed rural communities, as well as agricultural, forestland, and natural open spaces. 3. Mountian areas have a large amount of public land with open-space oreinted uses, as well as some small, rural comunities and a variety of agriculture and forestry (YCGP 2011).

Yuba County includes the following cities; Marysville (County Seat) and Wheatland. Unincorporated communities on the valley floor include Linda, Oliviehurst, and Plumas Lake. In the foothill and mountian areas are the communities of Loma Rica, Browns Valley Brownville, Challenge, Oregon House, Dobbins, Log Cabin, Rackerby, Camptonville, Smartsville, Strawberry Valley, Camp Far West, and Collins Lake (YCGP 2011).

The zoning designation for the proposed project and the majority of the county is defined as "Natural Resources" in the Yuba County General Plan (YCGP 2011). The Natural Resources intent is to conserve and provide natural habitat, watershed, scenic resources, cultural resources, recreational amenities, agricultural and forest resources, wetlands, woodlands, minerals, and other resources for sustainable use, enjoyment, extraction and processing. Allowable uses include mining; agriculture, including viticulture and other types of cultivation; forestry; natural open space and nature preserves; mitigation banks, parks and recreational uses, and other natural-resource orientated uses; public facilities and infrastructure, including levees, levee borrow areas, and related facilities; and residential uses that are secondary to the primary natural resource-oriented use (YCGP 2011).

Yuba County, Sutter County, Yuba City, Live Oak, Wheatland, the California Department of Fish and Wildlife and United States Fish and Wildlife Service are in the process of creating a NCCP)/HCP. The Yuba-Sutter NCCP/HCP is currently in the planning phase and a completion date is unknown. The Yuba-Sutter NCCP/HCP would identify and provide regional or area wide protection of plants, animals and their habitats, while allowing for compatible and appropriate economic activity (YCNCCPHCP 2014).

The WPIC project is located near the community of Plumas Lake, with the closest residences located approximately 300 feet west of the project. Surrounding land uses include primarily agriculture including rice fields, row crops and orchards. WPIC is located within the planning area of the Yuba-Sutter NCCP/HCP.

5.10.2 Environmental Checklist and Discussion

LAND USE 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a) Physically divide an established community?
No Impact. The proposed project consists of channel maintenance including debris removal and vegetation management. Maintenance of the channel would not 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 consists of channel maintenance including debris removal and vegetation management. Maintenance of the channel would not conflict with any land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?
No Impact. The proposed project is located within the planning area of the Yuba-Sutter NCCP/HCP which at the time of this document release, was in development. The joint plan is being designed to protect open space in the valley and lower foothill portion of both counties. No date for completion has been offered by NCCP/HCP website (YCNCCPHCP 2014).

DWR's Feather River Regional Environmental Planning Program is developing an HCP which will cover flood management activities including those in the proposed project area. The regional permitting effort's holistic approach will focus on integrating ecosystem improvements into flood risk management projects. There is no conflict

between the proposed project and the Feather River HCP.

5.11 MINERAL RESOURCES

5.11.1 Environmental Setting

The State Mining and Geology Board (SGMB), in concert with the DOC, the California CGS and the Office of Mine Reclamation, and its stakeholders, has been fully engaged in implementing the legislative mandates of the Alquist-Priolo Earthquake fault Zoning Act (AP Act), Seismic Hazards Mapping Act (SHMA), and the Surface Mining and Reclamation Act of 1975 (SMARA). Local lead agencies (cities and counties with surface mines within their jurisdictions) have primary responsibility for implementing SMARA. Each of these lead agencies must have a surface mining ordinance certified by the SGMB as being in accordance with SMARA. SHMA programs and mandates closely resemble those of the AP Act. During the 2012-2013 reporting period, no new SHMA maps were produced by the CGS to be considered and commented on by the SMGB (SMGB 2014).

According to the Yuba County General Plan "Geology and Soils" *General Plan Update Report*, a portion of Yuba County falls within the Mineral Resources Zone described in SMARA Mineral Land Classification Special Report 132. The classification designates lands needed for their mineral content. The classification system ensures Yuba County consideration of statewide or regionally significant mineral deposits in planning and development administration. The mineral designations prevent incompatible land use development in areas determined to have significant mineral resource deposits (YCGP 2011).

SMARA uses four categories referred to as mineral resource zones (MRZ) to classify the likelihood for the presence of significant mineral deposits for an area. MRZ-1 means that there is little likelihood for the presence of significant mineral deposits. MRZ-2 means the area has at least $17.1 million worth (2009 threshold value) of suitable material that could be extracted and marketed profitably under present technological conditions. MRZ-3 means that there are areas containing mineral deposits but its significance requires further evaluation. MRZ-4 means that there is inadequate data for the area.

The MRZ in Yuba County occur primarily near the Yuba River, extending from Marysville on the west to approximately Smartsville on the east. Sand gravel resources in MRZ-2 along the Yuba River are made up of alluvial deposits from Tertiary to recent times, deposited as the Yuba River carried large volumes of sand, gravel, and silt in the Central Valley. Other deposits classified as MRZ-2 include Jurassic metavolcanic rocks, Tertiary stream channel deposits, and the Yuba River dredge field of recent deposits, mined both for aggregate materials and gold (YCBR 2008). The Yuba County General Plan established Policy NR8.3 to protect mineral resource and prevent introduction of incompatible land uses in areas with ongoing, viable mining operations (YCGP 2011). WPIC is not located in an MRZ and no current mining operations occur at or near the proposed project site (YCGP 2011).

5.11.2 Environmental Checklist and Discussion

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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. The proposed project is limited to debris removal and vegetation management activities. The channel maintenance is not located within an area designated by SMARA as a mineral resource. The proposed project would not result in loss of a known mineral resource.

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

No Impact. The proposed project is limited to debris removal and vegetation management activities. The channel maintenance is not located within an area designated by Yuba County's General Plan as a mineral resource. The proposed project would not result in loss of a locally-important mineral resource recovery site.

5.12 NOISE

5.12.1 Environmental Setting

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. Given that the typical human ear is not equally sensitive to all frequencies of the audible sound spectrum, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes low and extremely high frequencies, referred to as A-weighting, and is expressed in units of A-weighted decibels (dBA).

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Several different methods are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal and is expressed in terms of inches per second. The PPV is most frequently used to describe physical vibration impacts on buildings. Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include structures, people (such as residents, the elderly, and sick people), and vibration-sensitive equipment.

The Public Health and Safety Element of the Yuba County General Plan includes noise policies that will be used to guide decisions concerning land use and the location of roads, industrial developments, agricultural operations, and other common sources of noise. In addition, Yuba County Ordinance 8.20.140 (YCOC 2014), was established for permitted ambient noise levels in different zones (single family, commercial, etc.), as seen in Table 5, below.

Table 5. Yuba County Ambient Base Levels.

Zone	Time	Ambient Level	Maximum Noise Level Permitted
Single family Residential	10:00 p.m. to 7:00 a.m.	45	55
	7:00 p.m. to 10:00 p.m.	50	60
	7:00 a.m. to 7:00 p.m.	55	65
Multi-family Residential	10:00 p.m. to 7:00 a.m.	50	60
	7:00 a.m. to 10:00 p.m.	55	65
Commercial -BP	10:00 p.m. to 7:00 a.m.	55	65
Commercial	7:00 a.m. to 10:00 p.m.	60	70
M-1	Anytime	65	75
M-2	Anytime	70	80

(YCOC 2014)

The maximum allowable noise exposure from transportation noise sources for noise-sensitive land uses, as found in the YBGP are below.

Table 6. Maximum Allowable Noise Exposure

Maximum Allowable Noise Exposure from Transportation Noise Sources at Noise-Sensitive Land Uses

Land Use	Interior Spaces		Outdoor Activity Areas (dBA L_{DN})
	dBA L_{DN}	dBA L_{EQ}	55 60 65 70 75 80
Residences	45	-	
Hotels, Motels	45	-	
Schools, Libraries, Museums, Places of Worship, Hospitals, Nursing Homes	45	45	
Theaters, Auditoriums, Concert Halls, Amphitheaters	35	-	
Outdoor Spectator Sports	-	-	
Playgrounds, Parks	-	-	
Golf Courses Riding Stables, Water Recreation, Cemeteries	-	-	
Office Buildings, Retail, and Commercial Services	45	-	
Industrial, Manufacturing, Utilities, Agriculture	-	-	

Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise requirements.

Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.

Clearly Unacceptable – New construction or development clearly should not be undertaken.

(YCGP 2011)

Noise Sensitive Receptors

Noise sensitive receptors in the vicinity of WPIC consist of residential structures located mostly west of the project. The closest house is approximately 300 feet west of the channel. Farming occurs within the channel and immediately east of the project site which includes temporary use of farming equipment.

5.12.2 Environmental Checklist and Discussion

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?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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?

Less Than Significant. As found in the Yuba County noise ordinance, the single family

residential home threshold varies depending on time of day. Channel maintenance would only occur during day business hours, which fall between 7:00 a.m. to 7:00 p.m. The dBA for Yuba County during these hours fall within 55 for ambient levels, and a maximum noise level permitted is 65. Channel maintenance may cause construction type equipment noise, but once completed, would not result in stationary noise sources. The closest community is Plumas Lake, with the closest residences located within a mile west of the WPIC.

Maintenance work will occur within the levees that border the east and west sides of channel. The levees will help block noise for the nearby residences. In addition, sound levels can drop 6 dB from a single point source for each doubling of distance. This applies to the temporary mobile noise sources such as the construction type equipment that may be used for the WPIC debris removal and vegetation management.

The proposed WPIC project area consists of the channel from the confluence of the Bear River to five miles upstream. There are residences located adjacent of the proposed project within 300 feet to the west. Noise created from debris removal would be temporary. Sound levels would decrease with the distance between the proposed project and the residences. Noise standards established by the Yuba County General Plan and the Yuba County Ordinance Code would not be exceeded. Lastly, DWR would adhere to all applicable local, state and federal regulations regarding noise attenuation and ensure that all engine-driven equipment would be fitted with adequate mufflers. There would not be exposure of persons to or generation of noise levels in excess of standards established by the local general plan or noise ordinance.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
No Impact. The channel maintenance of debris removal and vegetation management would not use equipment that is associated with vibration generation. There would be no exposure to persons or generation of excessive groundborne vibration or groundborne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
No Impact. The proposed project consists of channel maintenance activities including debris removal and vegetation management. Maintenance work is not permanent but would be temporary occurring approximately 1.5 months per year. All work will occur within the levees that border the east and west sides of channel. The levees will block noise for the nearby residences. The project would not create a substantial permanent increase in ambient noise levels in the project vicinity above existing levels.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
*Less Than Significant***.** The proposed project would temporarily use machinery for the maintenance of the WPIC. However, DWR would comply with all applicable local, state and federal regulations regarding noise attenuation and ensure that all engine-driven

equipment would be fitted with adequate mufflers. All work will occur within the levees that border the east and west sides of channel. The levees will block noise for the nearby residences. The proposed project would not create a substantial temporary or periodic increase in ambient noise level in the project vicinity above existing levels.

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 proposed project is not located within an airport land use plan. The two closest airports are Yuba County Airport located approximately 3 miles northwest of the proposed project and Beale Air Force Base located approximately 8 miles northeast of the proposed project.

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. The WPIC is not located within the vicinity of a private airstrip. There would not be people residing or working in the proposed project area exposed to excessive noise levels.

5.13 POPULATION AND HOUSING

5.13.1 Environmental Setting

The population in the Yuba County will continue to increase steadily, and growth over the 2014-2019 period, is expected to average 1.0 percent per year (CDOT 2014). The closest residence is located approximately 300 feet west of the proposed project site and the closest residential community is Plumas Lake. The 2010 United States Census reported that Plumas Lake had a population of 5,853 persons with a population density was 698.3 people per square mile (269.6/km²) (USCB 2010).

Yuba County approved the Plumas Lake Specific Plan on September 21, 1993. As found in the specific plan, the area was determined to have 13,027 total residences. The United States Census states 1,924 residences were occupied in 2010 (USCB 2010). No residences are located within the proposed project area and maintenance of the channel will not induce population growth or displace any existing housing.

5.13.2 Environmental Checklist and Discussion

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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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)?

No Impact. The proposed project is not inducing a direct or indirect substantial growth in the area as the channel maintenance would include debris removal and vegetation management. DWR is required to maintain the existing flood system at the project site. Implementation of the work would not have an effect on current and/or planned population grown patterns in Yuba County since the work is not increasing the infrastructure for new homes, businesses, or other buildings.

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

No Impact. The proposed project footprint consists primarily of agriculture lands. There are existing residences located east and west of the proposed project as well as in the community of Plumas Lake. The proposed project maintenance would be located in the WPIC. The proposed project would not displace, divide or disrupt an existing housing or established community.

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

No Impact. The proposed project is limited to channel maintenance and would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. In addition, the proposed project vicinity is located near Plumas Lake which Yuba County has designated as an area that has an approved Master Plan to create additional planned homes to be built when financially capable.

5.14 PUBLIC SERVICES

5.14.1 Environmental Setting

Fire Protection

Fire protection and emergency services are provided by the Linda Fire Protection District. Station #3 is located at 1765 River Oaks Boulevard, Plumas Lake, California, 95961, and has two wild land engines and two structure engines. The station is staffed with six full-time firefighters, working three shifts and augmented with on-call firefighters from the Plumas Lake community (LFPD 2014).

Police Protection

Law enforcement services would be provided by the Yuba County Sheriff's Department and California Department of Highway Patrol. The closest field station is located in the Linda Fire Station, see address above (YCSD 2014). The California Department of Highway Patrol's nearest office location to Plumas Lake is Station #285, Yuba-Sutter, 1619 Poole Road, Yuba City, California, 95993 (CHP 2014).

Schools

The closest schools to the proposed project site are Rio Del Oro (K-5), Cobblestone (K-5) and Riverside Meadows Intermediate School (6-8) in Plumas Lake, Arboga. Elementary School located in Arboga and Wheatland High School located in in Wheatland.

Parks

There are approximately twelve parks located within the vicinity of the proposed project Olivehurst Public Utility District maintains the parks, with the district office located in Olivehurst approximately 9 miles from the proposed project site (OPUD 2014).

Emergency Services

Emergency Services at the proposed project site are provided by the police and fire protection organizations listed above. In the unincorporated County, fire protection services would be provide by the California Department of Forestry and Fire Protect (CAL FIRE), the US Forest Service (USFS) and several other local Fire Districts within Yuba County (YCFEIR 2014).

5.14.2 Environmental Checklist and Discussion

PUBLIC SERVICES: Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

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?

Fire Protection/Police Protection

No Impact. Channel maintenance of the WPIC would not result in the need for new or altered law enforcement or fire protection facilities. Maintenance activities would be short-term and temporary. Channel maintenance would not require new or additional fire protection and/or police protection.

Schools/Parks/Other Public Facilities

No Impact. The channel maintenance of the WPIC would not include any components that would result in an increased demand for school services, parks or other public facilities.

5.15 RECREATION

5.15.1 Environmental Setting

Yuba County maintains and operates nine local parks and one regional park. A wide range of recreational opportunities include wildlife viewing, camping, hunting, hiking, and fishing. No recreational facilities such as city or county parks in the area would be affected by the proposed project. There are several duck hunting clubs immediately adjacent of the proposed project.

5.15.2 Environmental Checklist and Discussion

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?	☐	☒	☐	☐
b) Does the project include recreational facilities or require e the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

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?

Less Than Significant With Mitigation Incorporated. The proposed project would involve channel maintenance including debris removal and vegetation management. The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities. The proposed project is located within the vicinity of duck hunting clubs. The CDFW designates the WPIC vicinity to be in the area of "Balance of State Zone" which indicates regular duck season to be October 18 – January 25*, and Youth Water Fowl Hunting Days to be the Saturday following the closing of waterfowl season extending for two days.

*Dates may be subject to change based on California Department of Fish and Wildlife regulations. SMY would be required to be compliant with the dates found at: https://www.wildlife.ca.gov/Hunting/Waterfowl#877768-regulations.

Mitigation Measure REC-1: Coordinate With Local Duck Hunting Clubs During Duck Hunting Season

To minimize disturbance to duck hunting, SMY will contact and coordinate with local duck hunting clubs as appropriate prior to beginning maintenance work during duck hunting season.

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?

No Impact. The proposed project would involve channel maintenance including debris removal and vegetation management. The proposed project would not include recreational facilities or require the construction or expansion of recreation facilities and would not have an adverse physical effect on the environment.

5.16 TRANSPORTATION AND TRAFFIC

5.16.1 Environmental Setting

The WPIC is located in Yuba County adjacent to the community of Plumas Lake. California State Route 70, located just west of the project, runs parallel to the proposed project. California State Routes 65 and 99 are located within five miles of the proposed project.

Maintenance activities would include debris removal and vegetation management and would occur as needed throughout the year. Maintenance equipment would come from the DWR Sutter Yard, located on California State Route 20 in Sutter County adjacent to the Wadsworth Canal., It is anticipated that two trucks (which may carry trailers carrying equipment) will make the round trip to WPIC each day during the 1.5 month maintenance period per year. Local roads would be minimally affected by transportation of SMY staff and equipment. Many of the trips related to maintenance would likely use the following major localized highway/roads: California Routes 20, 65 and 70; Forty Mile Road, Algodon Road, Plumas Lake Boulevard, River Oaks Boulevard, and Plumas Arboga Road. Localized roads would not need to be closed during WPIC maintenance. Maintenance equipment would be brought onto the levee road, where only local landowners, RD 784 and DWR have access. If channel maintenance requires equipment to stay within the proposed project footprint, a staging area would be designated, as stated in Mitigation Measure BIO-6.

<u>California State Routes</u>

State Route 20

State Route (SR) 20 is an east-west arterial linking the coastal areas of northern California with the Sierra foothill counties. SR 20 is primarily a two-lane roadway, except for a four-lane segment within the city of Colusa.

State Route 70

SR 70 serves both local and regional travel within Yuba County. It begins at SR 99 in Sutter County and extends to the north through Yuba County and into Butte County. It is a two- to four-lane conventional highway from Sutter/Yuba County Line to McGowan Parkway, where it becomes a four-lane freeway that extends into Marysville. Within Marysville, it is a two/four lane arterial. It is a two lane conventional highway between Marysville and the Yuba/Butte County Line. SR 70 features interchanges at McGowan Parkway, SR 65, Olivehurst Avenue, Erie Road, Feather River Boulevard, and North Beale Road.

State Route 65

SR 65 serves both local and regional travel with Yuba County. It begins at Interstate 80 in South Placer County and extends to the north through downtown Wheatland, terminating at SR 70. SR 65 is a two-lane conventional highway from Wheatland to South Beale Road, and a four-lane freeway north of South Beale Road to SR 70. SR 65 has interchanges at Forty Mile Road/Ostrom Road and McGowan Parkway.

County Roadways

County roadways within the proposed project vicinity and haul routes may include Forty Mile Road, Algodon Road, Plumas Lake Boulevard, River Oaks Boulevard, and Plumas Arboga Road

Traffic Types and Volumes

All roadways within the proposed project vicinity are traveled by automobiles, trucks, motorcycles, emergency vehicles, trucks with trailers, and agricultural equipment (on county roadways). Traffic counts and levels of service (LOS) for roadways within the proposed project vicinity are presented below in Tables 7 and 8. Counts were not available for all local roads within the proposed project vicinity.

Table 7. Existing AM/PM Peak Hour Traffic LOS for Yuba County.

Roadway	Segment		AM/PM Hour Peak Count	LOS		LOS Threshold
	To	From		AM	PM	
SR 20	I St	E St	2,590	A	D	E
SR 70	1st St	10th St	4,162	F	F	D
	Erle Rd	1st St	4,162	B	C	D
	SR 65	Erle Rd	3,163	B	B	D
	Feather River Blvd	Yuba/Sutter Line	1,317	D	D	C
	SR 65	Algodon Rd	1,319	A	A	C
	Algodon Rd	Feather River Blvd	1,153	B	A	C
SR 65	Forty Mile Rd.	SR 70	1,377	A	A	C
Algodon Rd.	Feather River Blvd.	SR 70	42	–[1]	A	C
Forty Mile Rd.	Plumas Arboga Rd	SR 65	115	–[1]	A	C
Forty Mile Rd.	Plumas Arboga Rd	Wheatland Rd.	101	–[1]	B	C
Plumas Arboga Rd.	Old Marysville Rd.	Forty Mile Rd.	155	–[1]	B	C
Plumas Arboga Rd.	Feather River Blvd.	Arboga Rd.	206	–[1]	A	C
Plumas Arboga Rd.	Arboga Rd.	SR 70	369	–[1]	B	C

Data derived from Yuba County General Plan Update Background Report, 2007.
[1] LOS for AM Peak Hour Traffic not provided.

Table 8. Traffic Counts and LOS for Sutter County.

Roadway	Segment		Count	LOS
	From	To		
SR 20	Acacia Rd	Humphrey Rd	9,500	C
	Humphrey Rd	Township Rd	9,500	C
	Township Rd	George Washington Blvd	12,200	A
	George Washington Blvd	Yuba City Limits	17,500	A

Data derived from Sutter County General Plan Update Technical Background Report, 2008.

Airports/Airstrips

There are two airports within the vicinity of the proposed project site. These include Yuba County Airport located approximately 3 miles northwest and Beale Air Force Base located approximately 8 miles northeast of the proposed project.

Transit

The Yuba-Sutter Transit provides public transportation for Yuba and Sutter Counties. There are no bus routes that serve the proposed project site however, the Yuba-Sutter Transit offers two options to the nearby community of Plumas Lake. Commuter Express offers services between Marysville/Yuba City to downtown Sacramento. The Sacramento Midday Express offers late morning, noon and early afternoon services from and to the same locations above. Lastly, there is a Caltrans Park and Ride site located adjacent to the proposed project footprint (YST 2014).

Pedestrian and Bicycle System

Pedestrian facilities include sidewalks, crosswalk, and pedestrian signals, and are generally located in the developed communities. The proposed project footprint is located within levee roads and the WPIC. There are no pedestrian or designated bicycle lanes in the proposed project footprint.

Railroads

A Union Pacific Railroad line parallels SR 70 through Yuba County. The line has seven at-grade crossings with surface streets in the County (YCBR 2007).

5.16.2 Environmental Checklist and Discussion

TRANSPORTATION AND TRAFFIC: Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

No Impact. Equipment, material, and personnel would be mobilized to the site, and equipment or material may be stored at a designated staging area. The proposed project consists of channel maintenance. Transport of the maintenance equipment to the proposed project sites would not conflict with an applicable plan, ordinance or policy or impact the performance of the circulation system.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

No Impact. Equipment, material, and personnel would be mobilized to the site, and equipment or material may be stored at a designated staging area. The proposed project consists of channel maintenance. As discussed in section 5.16.1, the proposed project vicinity is primarily rural and is not located in LOS area that would be impacted by the transport of maintenance equipment. The proposed project would not conflict with an applicable congestion management program including level of service, travel demand measure or other standards established by Yuba County.

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 require closure of local roads to transport the maintenance equipment. The closest airport is approximately three miles northwest. The channel maintenance would not result in a change in air patterns including either an increase in traffic levels, or a change in location that results in substantial safety risks.

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. Maintenance equipment would be transported using highway approved trucks and trailers. There would be no sharp curves, dangerous intersections or farm equipment used during transport of the maintenance equipment. No substantial increase in hazards due to a design feature or incompatible uses would occur.

e) Result in inadequate emergency access?

No Impact. The channel maintenance would be located within the WPIC levees and is not located near streets that emergency response vehicles would use. The proposed project would not result in inadequate emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The channel maintenance would be located within the WPIC levees and is not located near streets that public transit, bicycles or pedestrians would use. The proposed project would not result conflict with any adopted policies, plans or programs.

5.17 UTILITIES AND PUBLIC SERVICES

5.17.1 Environmental Setting

The WPIC is located in a rural area of Yuba County. Plumas Lake is the closest community. There are powers lines running parallel to the channel on the west side of the proposed project. There are no utility corridors located within the proposed project area.

5.17.2 Environmental Checklist and Discussion

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

UTILITIES AND SERVICE SYSTEMS: Would the project…	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
No Impact. The proposed project consists of channel maintenance including debris removal and vegetation management. It would not include new urban uses (e.g., residential, commercial land, or industrial) that would directly increase the demand for wastewater treatment. The proposed project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board.

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?
No Impact. The proposed project consists of channel maintenance including debris removal and vegetation management. The proposed project would not require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities.

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. The proposed project consists of channel maintenance including debris removal and vegetation management. The proposed project would not require or result in construction of new storm water drainage facilities or expansion of existing facilities.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
No Impact. The proposed project consists of channel maintenance including debris removal and vegetation management. The proposed project would not require sufficient water supply for entitlements or resources, or need new/expanded entitlements.

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?

No Impact. The proposed project consists of channel maintenance including debris removal and vegetation management. The proposed project would not result in a determination by a wastewater treatment provider or create a demand for the providers existing commitments.

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

No Impact. Any trash that is collected will be disposed of offsite properly. Any woody material or vegetation removed from the channel will be mulched/shredded and spread onsite, piled up and burned onsite if conditions allow, or disposed of offsite. Non-native material that is removed will be disposed of properly to prevent re-infestation within the channel. All materials hauled offsite for disposal will be taken to an approved landfill that has sufficient permitted capacity to accommodate the waste needs of the proposed project.

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

No Impact. All solid waste activities will comply with federal, state and local statutes and regulations.

6 MANDATORY FINDINGS OF SIGNIFICANCE

The lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur. Where prior to commencement of the environmental analysis a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on the environment or would mitigate the significant environmental effect, a lead agency need not prepare an EIR solely because without mitigation the environmental effects would have been significant (per Section 15065 of the State CEQA Guidelines):

ISSUES	Potentially Significant Impact	Less Than Significant Impact with Mitigation	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, 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?	☐	☒	☐	☐
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 past, present and probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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. As discussed in Sections 5.1 through 5.17 of this Initial Study, the proposed project would not significantly affect the environment. The proposed project could have potential adverse effects on biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, and recreation but those temporary and short-term impacts would be reduced to less than significant by incorporating mitigation. The long-term benefits from the proposed project may include increased habitat for GGS, Swainson's Hawk and White-tailed Kite and improved native plant communities with the removal of non-native species.

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 past, present and probable future projects)?
Less Than Significant With Mitigation Incorporated. Ongoing maintenance of WPIC is needed for FMO to comply with the Code of Federal Regulations and the California Water Code Sections 8370, 8361 and 12878. Maintenance of the proposed project would result in short-term and temporary impacts that would mainly be limited to the proposed project site. One current known project located in the vicinity includes the replacement a failed culvert in the east embankment levee 450 feet north of Plumas Arboga Road, near the town of Arboga in Yuba County. The culvert is located on the CVFPB property. While impacts for resource areas such as air quality and greenhouse gas emissions would contribute to more regional impacts, the impacts from the proposed project and the culvert replacement would not be cumulatively considerable because of the relative small size of both projects.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
Less Than Significant With Mitigation Incorporated. Ongoing maintenance of WPIC is needed for FMO to comply with the Code of Federal Regulations and the California Water Code Sections 8370, 8361 and 12878. The project is within the bounds of the CVFPP for State flood management. Mitigation measures have been provided to reduce the proposed project's potential effects on aquatic and terrestrial biological resources, cultural resources, hydrology and recreation. These mitigation measures address the short-term and temporary impacts associated with maintenance. The long-term benefits from the proposed project include ensuring daily and emergency flood operations can be conducted in a safe and efficient manner so that public safety concerns are met. All other impacts to resources in this Initial Study are less than significant or no impact.

7 REFERENCES

Agriculture and Forestry Resources

California Department of Conservation (CDOC). 2010. Important Farmland in California, 2010 map. CDOC, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Viewed online at: http://maps.conservation.ca.gov/ciff/ciff.html. Accessed: September 23, 2014.

California Department of Conservation (CDOC). 2012. State of California Williamson Act Contract Land. Viewed online at: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/2012%20Statewide%20Map/ Accessed: September 25, 2014.

Yuba County 2030 General Plan (YCGP). Adopted June 7, 2011. Resolution No. 2010-0008. Viewed online at: http://www.yubavision2030.org/2030_YCGeneralPlan_2.aspx Accessed: October 7, 2014.

Yuba County Development Code Public Review Draft (YCDC). October 21, 2014. Viewed online at: http://www.yubazoningupdate.org/Documents/ Public%20Rev%20Draft%20-%20Development%20Code/PRD%20Dev%20Code %20(Complete%20Doc).pdf. Accessed: December 16, 2014.

Air Quality

Feather River Air Quality Management District (FRAQMD). Indirect Source Review Guidelines: A Technical Guide to Assess the Air Quality Impact of Land Use Projects Under the California Environmental Quality Act. Yuba City, California. June 7, 2010. Viewed online at: http://www.fraqmd.org/CEQA/Update%202010/FINAL%206-7-10/FINAL%20version%20ISR%20Amendments.pdf Accessed: September 25, 2014.

Office of Environmental Health Hazard Assessment (OEHHA). 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines: Technical Support Document for Exposure Assessment and Stochastic Analysis- Chapter 11 Residential and Worker Exposure Duration, Individual vs. Population Cancer Risk, and Evaluation of Short Term Projects. Viewed online at: http://www.oehha.org/air/hot_spots/pdf/2012tsd/Chapter11_2012.pdf Accessed May 21, 2014.

Roadway Construction Emissions Model (Version 7.1.5.1, December 2013) (RCEM). 2013. Computer software. Sacramento Metropolitan Air Quality Management \District (SMAQMD). Viewed online at: http://www.airquality.org/ceqa/RoadConstructionEmissionsModelVer7_1_5_1.xls Accessed: September 11, 2014.

Biological Resources

Barr C.B. 1991. The Distribution, Habitat, and Status of the Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*. Sacramento (CA): U.S. Fish and Wildlife Service. 138 pp. Viewed online at: http://www.sacramentoriver.org/SRCAF/library/file.php?file_id=Distribution_Habitat_Status_Valley_Elderberry_Longhorn_Beetle_1991.pdf Accessed: July 6, 2012. Last Updated: November 1991.

Beedy, E.C. 2008. "Tricolored Blackbird (*Agelaius tricolor*)." In: Shuford WD; Gardali T, editors. California Bird Species of Special Concern. Studies of Western Birds No. 1. Camarillo, CA: Western Field Ornithologists; Sacramento, CA: California Department of Fish and Game. 437-443. 77pp.

Beedy, E. C. and W. J. Hamilton III. 1999. Tricolored Blackbird (Agelaius tricolor), in The Birds of North America (A. Poole and F. Gill, eds.), no. 423. Birds N. Am., Philadelphia.

Bloom, P.H. 1980. The Status of the Swainson's Hawk in California, 1979. Sacramento (CA): California Department of Fish and Game; U.S. Dept. of the Interior, Bureau of Land Management. 44 pp. Final Report. Viewed online at: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=4031 Accessed: June 26, 2012. Last Updated: November 1980.

Brode, J.M. 1988. Natural history of the giant garter snake (*Thamnophis couchii gigas*). In: DeListe HF, Brown PR, Kaufman B, and McGurty BM. Proceedings of the Conference on California Herpetology. Special Publication No. 4. October 10 and 11, 1987. Los Angeles, CA: Southwestern Herpetologists Society. Pages 25-28.

California Department of Fish and Wildlife. 2014. California Natural Diversity Database Biogeographic Data Branch. Version Update: December 2014. Accessed on December 2, 2014.

California Department of Fish and Wildlife. 2015. California Wildlife Habitat Relationship System, California Interagency Wildlife Task Group. Viewed online at: file:///C:/Users/mmpowers/Downloads/LHA_B111%20(2).pdf Accessed on March 2, 2015.

California Native Plant Society, Rare Plant Program (CNPS). 2013. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Viewed online at: http://www.rareplants.cnps.org Accessed on July 12, 2013.

CSU Chico-Butte Creek Watershed Project. 1998 Butte Creek Watershed Project Existing Conditions Report. Prepared for the Butte Creek Watershed Conservancy August 1998. 236 pp.

Federal Register. 2005. Endangered and Threatened Wildlife and Plants; Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon; Evaluation of Economic Exclusions From August 2003 Final Designation. Final Rule. Volume 70, Number 154. August 11, 2005.

Hansen, G.E. 1988. Review of the status of the giant garter snake *(Thamnophis couchi gigas)* and its supporting habitat during 1986-1987. Final report. 31pp. Prepared for: California Fish and Game.

Hill, K. A., and J. D. Webber. 1999. Butte Creek spring-run Chinook salmon (Oncorhynchus tshawytscha) juvenile outmigration and life history 1995–1998 Sacramento Valley and Sierra Region. Inland Fisheries Administrative Report No. 99-5. CDFW, Sacramento,CA. 46 pp.

McReynolds, T.R., C.E. Garman, P.A. Ward and M.C. Schommer. 2005. Butte and Big Chico Creeks, Spring-Run Chinook Salmon, *Oncorhynchus tshawytscha*. Life history investigation 2003-2004. 46 pp.

Moyle, P.B. 2002. Inland Fishes of California- Revised and Expanded. University of California Press, Berkeley.

Natomas Basin Conservancy (NBC). 2015. Covered Species: Natomas Basin Habitat Conservation Plan and Metro Air Park Habitat Conservation Plan. Viewed online at: http://www.natomasbasin.org/wp-content/uploads/2014/02/NBC111101 coveredspeciesbook.pdf Accessed January 27, 2015.

Raleigh, R. F., T. Hickman, R. C. Solomon, and P.C. Nelson. 1984. Habitat Suitability Information: Rainbow Trout. U.S. Fish and Wildlife Service FWS/OBS-82/10.60. 64 pp.

Reynolds, F.L., T. Mills, R. Benthin, and A. Low. 1993. Restoring Central Valley streams: a plan for action. California Department of Fish and Game, Inland Fisheries Division, Sacramento, California. 129 pp.

Schlorff, R.W. and J.A. Estep. 1993. 5-Year Status Review: Swainson's Hawk (*Buteo swainsoni*). Sacramento (CA): California Dept. of Fish and Game, Nongame Bird and Mammal Program. 10 pp. Viewed online at: http://www.dfg.ca.gov/wildlife/nongame/publications/bm_research/docs/93_16.pdf. Accessed: June 22, 2012. Last updated: 1993

Stebbins, Robert C. 2003. A Field Guide to Western Reptiles and Amphibians

(Peterson Field Guides). Houghton Mifflin Harcourt; 3 edition (March 27, 2003).

Swainson's Hawk Technical Advisory Committee (SWA TAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. May 31, 2000.

U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland (OR): U. S. Fish and Wildlife Service. 606 pp. [Web site]. Viewed online at: http://ecos.fws.gov/docs/recovery_plans/2006/060307_docs/doc533.pdf. Accessed: July 6, 2012. Last Updated: December 15, 2005.

_____2006. Giant Garter Snake (Thamnophis gigas) 5-Year Review: Summary and Evaluation. Viewed online at: http://ecos.fws.gov/docs/five_year_review/doc778.pdf Accessed: December 2, 2011.

_____2013. Sacramento Fish & Wildlife Office Species List. Viewed online at: http://www.fws.gov/sacramento/es_species/Lists/es_species_lists.cfm Accessed on July 12, 2013.

_____2009. Species Account: GIANT GARTER SNAKE; *Thamnophis gigas*. Viewed online at: http://www.fws.gov/sacramento/ES_Species/Accounts/AmphibiansReptiles/Documents/giant_garter_snake.pdf Accessed December 2, 2011.

Wheeler BK. 2003. "Swainson's Hawk (*Buteo swainsoni*)." In: Raptors of Western North America. Princeton (NJ): Princeton University Press. 268-294 pp.

Yuba County 2030 General Plan. 2011. Natural Resources Element. Accessed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Adopted%202030%20General%20Plan/10_NATURAL_RESOURCES_ELEMENT.pdf. Accessed on February 2, 2015.

Yuba-Sutter Regional Conservation Plan (YSRCP). 2012. Yuba-Sutter NCCP/HCP Planning Agreement. Viewed online at: http://www.yubasutterrcp.com/wpcontent/uploads/2012/12/Final-Planning-agreement-with-signatures.pdf. Accessed on April 24, 2014.

Cultural and Historic Resources

Department of Water Resources Office Memo (DWR). Cultural Resources Clearance: Western Pacific Interceptor Channel Maintenance Project. Wendy Pierce, Associate Environmental Planner-Archeology. August 25, 2014.

Geology and Soils

California Department of Conservation (CDOC). Alquist-Priolo Fault Zone Maps. Bangor Quadrangle California – Butte Co. 7.5 Minute Series. 1977. Viewed online at: http://gmw.consrv.ca.gov/shmp/download/quad/BANGOR/maps/BANGOR.PDF Accessed: September 26, 2014.

California Department of Conservation (CDOC). California Division of Mines and Geology Fault Evaluation Report FER-146. Bear Mountain Fault Zone North of Auburn. May 16, 1983. Viewed online at: ftp.consrv.ca.gov/pub/dmg/pubs/fer/146/051683.pdf Accessed: September 22, 2014.

California Department of Conservation (CDOC). Regulatory Maps. Viewed online at: http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm Accessed: September 23, 2014.

United States Department of Agriculture, National Resource Conservation Service (NRCS). Web Soil Survey. Accessed online at: http://websoilsurvey.nrcs.usda.gov/app/ Accessed: September 12, 2014.

Greenhouse Gas Emissions

California Department of Water Resources (DWRCAP). Climate Action Plan: Phase 1: Greenhouse Gas Emissions Reduction Plan. May 2012. Viewed online at: http://www.water.ca.gov/climatechange/docs/Final-DWR-ClimateActionPlan.pdf Accessed: September 16, 2014.

California Department of Water Resources. (DWRIS). Initial Study for the California Department of Water Resources Draft Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan. March 2012. Viewed online at: http://www.water.ca.gov/climatechange/docs/Final-CAP-IS-ND.pdf Accessed: October 22, 2014.

California Department of Water Resources. (DWRPI). Climate Action Plan Phase I: Greenhouse Gas Emissions Reduction Plan Implementation Procedures. DWR CEQA Climate Change Committee. Version 1.1. March, 2014. Viewed online at: http://dwrclimatechange/docs/GGERP%20Imp%20Guidance%20Ver1.1%202014.pdf Accessed: October 30, 2014.

Hazards and Hazardous Materials

California Department of Toxic Substances Control. (DTSC). 2014. EnviroStor Data Management System Public Website. Viewed online at: http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=plumas%20lake,%20ca.&zip=&county=&federal_superfund=true&state_response=true&voluntary_

cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true
Accessed: November 3, 2014.

Hydrology/Water Quality

Central Valley Flood Management Planning Program. (CVFMPP). FloodSAFE California. Department of Water Resources, Division of Flood Management, Central Valley Flood Planning Office, State Plan of Flood Control. Descriptive Document. November 2010.

Corps of Engineers, US Army. Sacramento District, Sacramento California (ACOE). 15 March 1957. Sacramento River Flood Control Project California. Levee and Channel Profiles. W.P. Interceptor Channel. Sheets 4, Sheet No. 3.

Jones and Stokes. Bear River and Western Pacific Interceptor Canal Levee Improvements Project Final Environmental Impact Report. August 2004.

United States Department of Homeland Security, Federal Emergency Management Agency (FEMA). Flood Map Service Center Search. Yuba County. Viewed online at: https://msc.fema.gov/portal/search?AddressQuery=Plumas%20Lake%2C%20California
Accessed: September 17, 2014.

Land Use and Planning

Planning Agreement by and among The County of Yuba, the County of Sutter, the City of Yuba City, the City of Live Oak, the City of Wheatland, the California Department of Fish and Game, and the United States Fish and Wildlife Service regarding the Yuba-Sutter Natural Community Conservation Plan and Habitat Conservation Plan (YCNCCPHCP). November 2011. Viewed online at: http://www.yubasutterhcp.org/Advisory%20Commitee/Documents/Draft%20Planning%20Agreement%20Available%20for%20Public%20Comment.pdf
Accessed: October 28, 2014.

Yuba County 2030 General Plan (YCGP). Adopted June 7, 2011. Resolution No. 2010-0008. Viewed online at: http://www.yubavision2030.org/2030_YCGeneralPlan_2.aspx
Accessed October 27, 2014.

Yuba County 2030 General Plan. Community Development Element. (YCGPCD). 2011. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Draft%202030%20General%20Plan/8_COMMUNITY_DEVELOPMENT_ELEMENT.pdf
Accessed: October 27, 2014.

Yuba County 2030 General Plan. Current General Plan & Specific Plan Land Uses. (YCGPLU) 2011. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Land%20Use%20Alt%20Wrkshps/Workshop%20Docs%207-30-08/Current%20General%20Plan.pdf
Accessed: October 27, 2014

Mineral Resources

State Mining and Geology Board (SMGB). 2013. Annual Report of the State Mining and Geology Board 2012-2013, Executive Summary.

Yuba County 2030 General Plan (YCGP). Adopted June 7, 2011. Resolution No. 2010-0008. Viewed online at: http://www.yubavision2030.org/2030_YCGeneralPlan_2.aspx
Accessed: October 7, 2014.

Yuba County 2030 General Plan Background Report. (YCBR) Geology and Soils. January 2008. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Background%20Reports/Background%20Reports/Geology%20and%20Soils.pdf
Accessed: September 30, 2014.

Noise

Yuba County Ordinance Code. (YCOC) Title VIII Public Peace and Safety. Chapter 8.20. Article 1. General Provisions. 8.20.140 Ambient base noise level. Viewed online at: https://www.municode.com/library/ca/yuba_county/codes/code_of_ordinances?nodeId=TITVIIIPUPESA_CH8.20NORE_ART1GEPR_8.20.140AMBANOLE
Accessed: October 1, 2014.

Yuba County 2030 General Plan. (YCGP) Public Health and Safety. Adopted June 7, 2011. Resolution No. 2010-0008. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Adopted%202030%20General%20Plan/9_PUBLIC_HEALTH_AND_SAFETY_ELEMENT.pdf
Accessed: October 1, 2014.

Population and Housing

California Department of Transportation (CDOT) California-County Level Economic Forecast 2014-2040. September 2014.Viewed online at: http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic_files/2014/FullReport.pdf
Accessed: February 17, 2015

United States Department of Commerce. United States Census Bureau. (USCB) American Fact Finder. Profile of General Population and Housing Characteristics: 2010. 2010 Demographic Profile Data. Geography: Plumas Lake CDP, California. Viewed online at: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk Accessed: October 2, 2014.

Public Services

California Highway Patrol. (CHP) Community. Viewed online at: http://www.chp.ca.gov/offices/Office_Loc.php Accessed: October 6, 2014.

Linda Fire Protection District. (LFPD) Plumas Lake. Viewed online at: http://lindafire.org/pages/history.php Accessed: October 6, 2014.

Plumas Lake Elementary School District. (PLESD) District Boundaries. Viewed online at: http://www.plusd.org/About-Us/District-Boundaries/index.html Accessed: October 6, 2014.

Olivehurst Public Utility District. (OPUD) Plumas Lake Parks. Viewed online at: http://opud.net/parks Accessed October 6, 2014.

Wheatland Union High School. (WUHS) WUHS Driving Directions. Viewed online at: https://www.wheatlandhigh.org/directions.htm Accessed: October 6, 2014.

Yuba County 2030 General Plan Background Report. (YCBR) Infrastructure, Public Facilities, and Public Services. February 2009. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Background%20Reports/Background%20Reports/Infrastructure%20Public%20Facilities%20Public%20Services.pdf Accessed: October 2, 2014.

Yuba County 2030 General Plan Final Environmental Impact Report. (YCFEIR) 4.12 Public Services and Facilities. Viewed online at: http://www.yubavision2030.org/FEIR/4.12%20Services%20&%20%20Facilities.pdf Accessed: October 2, 2014.

Yuba County Sheriff's Department. (YCSD) Locations. Viewed online at: http://sheriff.co.yuba.ca.us/Locations.aspx Accessed: October 6, 2014.

Recreation

Yuba County 2030 General Plan Background Report. (YCBR) Infrastructure, Public Facilities, and Public Services. February 2009. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Background%20Reports/Background%20Reports/Infrastructure%20Public%20Facilities%20Public%20Services.pdf

Accessed: October 2, 2014.

Transportation

Sutter County. February 2008. General Plan Technical Background Report, Chapter 3. Viewed online at: http://www.co.sutter.ca.us/pdf/cs/ps/gp/tbr/Chapter3.pdf Accessed: February 3, 2015.

Yuba County. 2011. Yuba County 2030 General Plan Background Report. (YCBR) Transportation and Circulation. November 2007. Viewed online at: http://www.yubavision2030.org/GPU%20-%20DOCUMENTS/Background%20Reports/Background%20Reports/Transportation%20and%20Circulation.pdf Accessed: October 8, 2014.

Yuba-Sutter Transit. Local Routes. (YST) Viewed online at: http://www.yubasuttertransit.com/lroutes.htm Accessed: October 9, 2014.

8 SUPPORTING INFORMATION SOURCES

8.1 APPENDIX A - WPIC PROJECT ROAD CONSTRUCTION EMISSIONS MODEL

Road Construction Emissions Model, Version 7.1.5.1

Emission Estimates for -> WPIC Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	2.0	12.1	19.5	101.1	1.1	100.0	21.8	1.0	20.8	2,214.1
Grading/Excavation	-	-	-	-	-	-	-	-	-	-
Drainage/Utilities/Sub-Grade	-	-	-	-	-	-	-	-	-	-
Paving	-	-	-	-	-	-	-	-	-	-
Maximum (pounds/day)	2.0	12.1	19.5	101.1	1.1	100.0	21.8	1.0	20.8	2,214.1
Total (tons/construction project)	0.0	0.2	0.3	1.7	0.0	1.7	0.4	0.0	0.3	36.5

Notes:		
	Project Start Year ->	2015
	Project Length (months) ->	2
	Total Project Area (acres) ->	433
	Maximum Area Disturbed/Day (acres) ->	5
	Total Soil Imported/Exported (yd^3/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> WPIC Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	0.9	5.5	8.9	46.0	0.5	45.5	9.9	0.5	9.5	1,006.4
Grading/Excavation	-	-	-	-	-	-	-	-	-	-
Drainage/Utilities/Sub-Grade	-	-	-	-	-	-	-	-	-	-
Paving	-	-	-	-	-	-	-	-	-	-
Maximum (kilograms/day)	0.9	5.5	8.9	46.0	0.5	45.5	9.9	0.5	9.5	1,006.4
Total (megagrams/construction project)	0.0	0.2	0.3	1.5	0.0	1.5	0.3	0.0	0.3	33.1

Notes:		
	Project Start Year ->	2015
	Project Length (months) ->	2
	Total Project Area (hectares) ->	175
	Maximum Area Disturbed/Day (hectares) ->	2
	Total Soil Imported/Exported ($meters^3$/day)->	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sume of exhaust and fugitive dust emissions shown in columns K and L.

Road Construction Emissions Model
Data Entry Worksheet

Version 7.1.5.1

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a
yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells C10 through C25.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Input Type		
Project Name	WPIC	
Construction Start Year	2015	Enter a Year between 2009 and 2025 (inclusive)
Project Type	1	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	1.50	months
Predominant Soil/Site Type: Enter 1, 2, or 3	1	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	5.00	miles
Total Project Area	433.00	acres
Maximum Area Disturbed/Day	5.00	acres
Water Trucks Used?	2	1. Yes 2. No
Soil Imported	0.00	**yd^3/day**
Soil Exported	0.00	**yd^3/day**
Average Truck Capacity	20	yd^3 (assume 20 if unknown)

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells C34 through C37.

Construction Periods	User Override of Construction Months	Program Calculated Months
Grubbing/Land Clearing	1.50	0.15
Grading/Excavation	0.00	0.60
Drainage/Utilities/Sub-Grade	0.00	0.53
Paving	0.00	0.23
Totals	1.50	1.50

2005	%	2006	%	2007	%
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00

NOTE: soil hauling emissions are included in the Grading/Excavation Construction Period Phase, therefore the Construction Period for Grading/Excavation cannot be zero if hauling is part of the project.

Hauling emission default values can be overridden in cells C45 through C46.

Soil Hauling Emissions	User Override of Soil Hauling Defaults	Default Values
User Input		
Miles/round trip		30
Round trips/day		0
Vehicle miles traveled/day (calculated)		0

Hauling Emissions	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00
Emission rate (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day	0.00	0.00	0.00	0.00	0.00	0.00
Tons per contruction period	0.00	0.00	0.00	0.00	0.00	0.00

Worker commute default values can be overridden in cells C60 through C65.

Worker Commute Emissions	User Override of Worker Commute Default Values	Default Values
Miles/ one-way trip	14.00	20
One-way trips/day	4.00	2
No. of employees: Grubbing/Land Clearing	2.00	15
No. of employees: Grading/Excavation		28
No. of employees: Drainage/Utilities/Sub-Grade		25
No. of employees: Paving		21

	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)	0.164	0.219	1.956	0.047	0.020	443.518
Emission rate - Grading/Excavation (grams/mile)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Paving (grams/mile)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Grubbing/Land Clearing (grams/trip)	0.558	0.363	4.666	0.004	0.003	95.528
Emission rate - Grading/Excavation (grams/trip)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Draining/Utilities/Sub-Grade (gr/trip)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Paving (grams/trip)	0.000	0.000	0.000	0.000	0.000	0.000
Pounds per day - Grubbing/Land Clearing	0.050	0.060	0.565	0.012	0.005	111.097
Tons per const. Period - Grub/Land Clear	0.001	0.001	0.009	0.000	0.000	1.833
Pounds per day - Grading/Excavation	0.000	0.000	0.000	0.000	0.000	0.000
Tons per const. Period - Grading/Excavation	0.000	0.000	0.000	0.000	0.000	0.000
Pounds per day - Drainage/Utilities/Sub-Grade	0.000	0.000	0.000	0.000	0.000	0.000
Tons per const. Period - Drain/Util/Sub-Grade	0.000	0.000	0.000	0.000	0.000	0.000
Pounds per day - Paving	0.000	0.000	0.000	0.000	0.000	0.000
Tons per const. Period - Paving	0.000	0.000	0.000	0.000	0.000	0.000
tons per construction period	0.001	0.001	0.009	0.000	0.000	1.833

Water truck default values can be overriden in cells C91 through C93 and E91 through E93.

Water Truck Emissions	User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Day	Default Values Miles Traveled/Day
Grubbing/Land Clearing - Exhaust		0		0
Grading/Excavation - Exhaust		0		0
Drainage/Utilities/Subgrade		0		0

	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)	0.25	9.41	1.09	0.22	0.15	1694.67
Emission rate - Grading/Excavation (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grub/Land Clear	0.00	0.00	0.00	0.00	0.00	0.00
Pound per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00
Pound per day - Drainage/Utilities/Subgrade	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Subgrade	0.00	0.00	0.00	0.00	0.00	0.00

Fugitive dust default values can be overridden in cells C110 through C112.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	5.00	5	100.0	1.7	20.8	0.3
Fugitive Dust - Grading/Excavation		5	100.0	0.7	20.8	0.1
Fugitive Dust - Drainage/Utilities/Subgrade		5	100.0	0.6	20.8	0.1

Off-Road Equipment Emissions

Grubbing/Land Clearing Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Air Compressors	0.73	3.43	4.63	0.40	0.37	507.95
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
0.50	1	Crawler Tractors	0.37	2.24	4.83	0.19	0.17	412.67
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
1.00	1	Excavators	0.44	2.79	4.90	0.24	0.22	572.80
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
		Graders	0.00	0.00	0.00	0.00	0.00	0.00
0.50		Off-Highway Tractors	0.20	1.27	2.22	0.11	0.10	246.67
0.10		Off-Highway Trucks	0.11	0.43	1.22	0.05	0.04	142.06
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
0.00	10	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Skid Steer Loaders	0.13	1.41	1.61	0.09	0.09	220.81
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing	pounds per day	2.0	11.6	19.4	1.1	1.0	2103.0
	Grubbing/Land Clearing	tons per phase	0.0	0.2	0.3	0.0	0.0	34.7

Grading/Excavation	Default Number of Vehicles		ROG	CO	NOx	PM10	PM2.5	CO2
Override of Default Number of Vehicles	*Program-estimate*	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
	0	Cranes	0.00	0.00	0.00	0.00	0.00	0.00
	1	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	3	Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
	1	Graders	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
	2	Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
	1	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
	2	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	10	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
	2	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation	pounds per day	0.0	0.0	0.0	0.0	0.0	0.0
	Grading	tons per phase	0.0	0.0	0.0	0.0	0.0	0.0

Drainage/Utilities/Subgrade Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
	1	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
	1	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
	1	Graders	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	1	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
	1	Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
	1	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
	2	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	10	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
	2	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage	pounds per day	0.0	0.0	0.0	0.0	0.0	0.0
	Drainage	tons per phase	0.0	0.0	0.0	0.0	0.0	0.0

Paving Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
		Graders	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	1	Pavers	0.00	0.00	0.00	0.00	0.00	0.00
	1	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
	3	Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	10	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
	2	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Paving	pounds per day	0.0	0.0	0.0	0.0	0.0	0.0
	Paving	tons per phase	0.0	0.0	0.0	0.0	0.0	0.0
Total Emissions all Phases (tons per construction period) =>			0.1	0.5	0.6	0.0	0.0	69.2

Equipment default values for horsepower and hours/day can be overridden in cells C289 through C322 and E289 through E322.

Equipment		Default Values Horsepower		Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		106		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		10		8
Concrete/Industrial Saws		64		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		142		8
Excavators		163		8
Forklifts		89		8
Generator Sets		66		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		26		8
Pumps		53		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		20		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		45		8

0

END OF DATA ENTRY SHEET

8.2 APPENDIX B – DWR GHG EMISSION REDUCTION PLAN CONSISTENCY DETERMINATION FORM

Print Form

DWR GHG Emissions Reduction Plan Consistency Determination Form

For Projects Using Only DWR Staff and Equipment

This form is to be used by DWR project managers to document a DWR CEQA project's consistency with the DWR Greenhouse Gas Emissions Reduction Plan. This form is to be used only when DWR is the Lead Agency and when only DWR staff and equipment are used to implement the project.

Additional Guidance on filling out this form can be found at:
dwrclimatecange.water.ca.gov/guidance_resources.cfm

The DWR Greenhouse Gas Emissions Reduction Plan can be accessed at:
http://www.water.ca.gov/climatechange/CAP.cfm

California Department of Water Resources
1416 9th Steet
Sacramento, CA
95814
dwrclimatechange.water.ca.gov
www.water.ca.gov/climatechange

Project Name:	Western Pacific Interceptor Canal Channel Maintenance Proj
Environmental Document type:	Mitigated Negative Declaration
Manager's Name:	Melanie Powers
Manager's email:	Melanie.Powers@water.ca.gov
Division:	Division of Flood Management
Office, Branch, or Field Division	Flood Maintenance Office

Short Project Description: The Western Pacific Railroad Interceptor Canal (WPIC) is located in Yuba County, north of Rio Oso Road and east of Highway 70. The WPIC is part of the Sacramento River Flood Control Project, therefore DWR has channel maintenance responsibilities of the flowage area from the confluence of the Bear River to five miles upstream. The proposed project includes conducting channel maintenance activities such as debris and/or obstruction removal, vegetation management and wildlife damage management activities. Channel maintenance activities are require to maintain design flows, ensure proper water conveyance, and allow adequate inspection of the channel. All maintenance activities will be conducted by the Sutter Maintenance Yard.

Project GHG Emissions Summary

☒ All emissions from the project will occur as ongoing operational, maintenance, or business activity emissions and therefore have already been accounted for and analyzed in the GGERP. (This box must be checked if you are using this form. If you cannot check this box you must use the form at this link)

Project GHG Reduction Plan Checklist

☐ All Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project. (Project Level GHG Emissions Reduction Measures)

Or

☒ All feasible Project Level GHG Emissions Reduction Measures have been incorporated into the design or implementation plan for the project and and Measures not incorporated have been listed and determined not be apply to the proposed project (include as an attachment)

☒ Project does not conflict with any of the Specific Action GHG Emissions Reduction Measures (Specific Action GHG Emissions Reduction Measures)

Would implementation of the project result in additional energy demands on the SWP system of 15 GWh/yr or greater?

○ Yes ◉ No

If you answered Yes, attach a Renewable Power Procurement Plan update approval letter from the DWR SWP Power and Risk Office.

Is there substantial evidence that the effects of the proposed project may be cumulatively considerable notwithstanding the proposed project's compliance with the requirements of the DWR GHG Reduction Plan?

○ Yes ◉ No

If you answered Yes, the project is not eligible for streamlined analysis of GHG emissions using the DWR GHG Emissions Reduction Plan. (See CEQA Guidelines, section 15183.5, subdivision (b)(2).)

Based on the information provided above and information provided in associated environmental documentation completed pursuant to the above referenced project, the DWR CEQA Climate Change Committee has determined that the proposed project is consistent with the DWR Greenhouse Gas Reduction Plan and the greenhouse gasses emitted by the project are covered by the plan's analysis.

Project Manager Signature:	[signature]	Date: 11/12/14
C4 Approval Signature:	Matthew Correa	Date: 11/14/2014

Attachments:

☒ List and Explanation of excluded Project Level GHG Emissions Reduction Measures

☐ Plan to update Renewable Energy Procurement Plan from DWR SWP Power and Risk Office

List and Explanation of Excluded Project Level GHG Emissions Reduction Measures

Explanation:
The Western Pacific Interceptor Canal Channel Maintenance Project includes channel maintenance activities such as debris removal and vegetation management. No construction will occur as part of this project. Maintenance of the channel will not involve constructing new facilities, hauling of materials, additional power sources onsite, the use of concrete, delivery of materials, or creation of construction waste. BMP's 1, 6, 7, 8 and 9 have been incorporated into the proposed project. The BMP's listed below are not applicable.

List of BMPs NOT applicable:
BMP 2. Evaluate the feasibility and efficacy of performing on-site material hauling with trucks equipped with on-road engines.

BMP 3. Ensure that all feasible avenues have been explored for providing an electrical service drop to the construction site for temporary construction power. When generators must be used, use alternative fuels, such as propane or solar, to power generators to the maximum extent feasible.

BMP 4. Evaluate the feasibility and efficacy of producing concrete on-site and specify that batch plants be set up on-site or as close to the site as possible.

BMP 5. Evaluate the performance requirements for concrete used on the project and specify concrete mix designs that minimize GHG emissions from cement production and curing while preserving all required performance characteristics.

BMP 10. Develop a project specific ride share program to encourage carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.

BMP 11. Reduce electricity use in temporary construction offices by using high efficiency lighting and requiring that heating and cooling units be Energy Star compliant. Require that all contractors develop and implement procedures for turning off computers, Light, air conditioners, heaters, and other equipment each day at close of business.

BMP 12. For deliveries to project sites where the haul distance exceeds 100 miles and a heavy duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling, a SmartWay certified truck will be used to the maximum extent feasible.

BMP 13. Minimize the amount of cement in concrete by specifying higher levels of cementitious material alternatives, larger aggregate, longer final set times, or lower maximum strength where appropriate.

BMP 14. Develop a project specific construction debris recycling and diversion program to achieve a documented 50% diversion of construction waste.

BMP 15. Evaluate the feasibility of restricting all material hauling on public roadways to off peak traffic congestion hours. During construction scheduling and execution minimize, to the extent possible, uses of public roadways that would increase traffic congestion

9 INITIAL STUDY PREPARERS

LEAD AGENCY

Flood Maintenance Office

Melanie Powers..... Environmental Scientist, Document Preparation
Kristin Ford..... Environmental Scientist, Document Preparation
Scott Deal.....Environmental Program Manager, IS Review
Joel Farias..... Sutter Yard Assistant Superintendent, IS Review
Kevin Brown .....Senior Engineering Geologist, Technical Review
Joy Nishida.....Environmental Scientist Technical Review

Office of Chief Counsel

Chris Martin.....Attorney, IS Review