

# Initial Study/Proposed Mitigated Negative Declaration Sutter Maintenance Yard Expansion Project



Prepared for:



California Department of Water Resources  
Division of Flood Management

**AECOM**

June 2014



Initial Study/Proposed Mitigated Negative Declaration  
Sutter Maintenance Yard Expansion Project



Prepared for:



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**AECOM**

June 2014



**Date:** June 3, 2014

**To:** Responsible and Trustee Agencies, Interested Parties, and Organizations

**Subject: NOTICE OF AVAILABILITY AND INTENT TO CONSIDER ADOPTION OF A PROPOSED MITIGATED NEGATIVE DECLARATION FOR THE SUTTER MAINTENANCE YARD EXPANSION PROJECT**

The California Department of Water Resources (DWR), Division of Flood Management, has directed the preparation of an initial study (IS) and intends to adopt the proposed mitigated negative declaration (MND) for the Sutter Maintenance Yard Expansion Project (proposed project) in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines.

**Project Title:** Sutter Maintenance Yard Expansion Project

**Lead Agency:** DWR, Division of Flood Management

**Project Location:** The proposed project is located in northern Sutter County, less than 1 mile south of the unincorporated community of Sutter, 3 miles west of the city of Yuba City, and adjacent to Colusa Highway (Highway 20). Wadsworth Canal runs north to south along the southern border of the project site.

**Project Description:** DWR's Division of Flood Management proposes to expand the existing Sutter Maintenance Yard (SMY) facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response. An immature walnut orchard on the project site would be uprooted and chipped into mulch on-site. The project site would be graded to allow for proper drainage and the perimeter of the project site would be fenced with a 6-foot-high chain link fence to match the existing SMY facility. The existing chain link fence that separates the properties would be removed to combine the properties. An all-weather access made up of approximately 500 cubic yards of ¾-inch aggregate base would be placed around a metal building that would be left on the project site. The access would incorporate a parking area to the south of the building and access to future storage sites of material and equipment as needed.

**Environmental Review Process:** DWR has directed the preparation of an IS/MND on the proposed project in accordance with the requirements of CEQA and the State CEQA Guidelines. The IS/MND describes the proposed project and provides an assessment of the proposed project's potential significant adverse impacts on the physical environment. It concludes that the proposed project would not have any significant adverse effects on the environment after adoption and implementation of mitigation measures.

**Public Review Period:** The IS/MND is being circulated for public review and comment for a review period of 30 days starting on June 3, 2014. Written comments should be submitted and received at the following address no later than close of business (4:00 p.m.) on July 3, 2014:

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Environmental Scientist  
Maintenance Environmental Support Branch  
Division of Flood Management  
California Department of Water Resources  
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**To Review or Obtain a Copy of the Environmental Document:** Copies of the IS/MND may be reviewed at the following locations:

DWR's Web site: <http://www.water.ca.gov/floodmgmt/fmo/msb/>

Sutter County Library  
Main Branch  
750 Forbes Avenue  
Yuba City, CA 95991

# PROPOSED MITIGATED NEGATIVE DECLARATION

**PROJECT:** Sutter Maintenance Yard Expansion Project

**LEAD AGENCY:** California Department of Water Resources (DWR), Division of Flood Management

**PROJECT LOCATION:** The proposed project is located in northern Sutter County, less than 1 mile south of the unincorporated community of Sutter, 3 miles west of the city of Yuba City, and adjacent to Colusa Highway (Highway 20). Wadsworth Canal runs north to south along the southern border of the project area.

**PROJECT DESCRIPTION:** DWR's Division of Flood Management proposes to expand the existing Sutter Maintenance Yard (SMY) facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response. An immature walnut orchard would be uprooted and chipped into mulch on-site. The project site would be graded to allow for proper drainage and the perimeter of the project site would be fenced with a 6-foot-high chain link fence to match the existing SMY facility. The existing chain link fence that separates the properties would be removed to combine the properties. An all-weather access made up of approximately 500 cubic yards of ¾-inch aggregate base would be placed around a metal building that would be left on the project site. The access would incorporate a parking area to the south of the building and access to future storage sites of material and equipment as needed.

**FINDINGS:** An initial study/proposed mitigated negative declaration (IS/MND) has been prepared to assess the proposed project's potential effects on the physical environment and the significance of those effects. Based on the analysis conducted in the IS, it has been determined that implementing the proposed project would not have any significant adverse effects on the environment after adoption and implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed project would have no effects related to land use and planning, mineral resources, population and housing, and recreation.
2. The proposed project would have a less-than-significant impact on aesthetics, agriculture and forestry resources, air quality, greenhouse gas emissions, geology and soils, hazards and hazardous materials, public services, transportation and traffic, and utilities and service systems.
3. The proposed project would have a less-than-significant impact on biological resources, cultural resources, hydrology and water quality, and noise. This less-than-significant impact conclusion assumes adoption and implementation of the mitigation measures discussed in the IS.
4. The proposed project would not have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.
5. The proposed project would not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.

6. The proposed project would not have possible environmental effects that are individually limited but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
7. The environmental effects of the proposed project would not cause substantial adverse effects on human beings, either directly or indirectly.
8. The proposed project incorporates all mitigation measures listed below and described in the IS.

**MITIGATION MEASURES:** The following mitigation measures will be implemented as part of the project to avoid, minimize, rectify, reduce or eliminate, or compensate for potentially significant environmental impacts. Implementation of these mitigation measures would reduce the potentially significant environmental impacts of the proposed project to less-than-significant levels:

**Mitigation Measure BIO-1: Conduct Preconstruction Surveys and Implement Avoidance and Minimization Measures to Protect Nesting Swainson’s Hawks**

- ▶ If tree removal and other construction activities occur during the Swainson’s nesting season (March 1 through September 15), focused surveys for Swainson’s hawk nests will be conducted by a qualified wildlife biologist within 14 days before the start of construction activities. Surveys will be conducted in potentially suitable nest trees occurring within the project site and within 500 feet of the boundaries of the site. If an active Swainson’s hawk nest is detected during the preconstruction surveys, California Department of Water Resources or its designated representative will notify California Department of Fish and Wildlife, and shall establish a protective buffer a minimum of 500 feet from the nest. No construction activities with potential to disturb nesting Swainson’s hawks will occur within the 500-foot protective buffer until the nest is no longer active or until the qualified biologist, in consultation with California Department of Fish and Wildlife, determines that the proposed construction activities pose no risk of nest abandonment or other disruptions to nesting activities.

**Mitigation Measure BIO-2: Conduct Preconstruction Surveys and Implement Avoidance and Minimization Measures to Protect Nesting White-tailed Kite and Other Migratory Birds**

- ▶ If tree removal and other construction activities occur during the nesting season (February 1 through August 15), a qualified biologist will conduct focused surveys for nesting white-tailed kites and other raptors and for other migratory birds within 14 days before the start of construction activities. Surveys will be conducted within the project site and 250 feet beyond the boundaries of the site. If an active nest is detected during the preconstruction surveys, California Department of Water Resources or its designated representative will establish a protective buffer of 100 feet from the active nest. No construction activities with potential to disturb nesting raptors or other migratory birds will occur within the 100-foot protective buffer until the nest is no longer active or until the qualified biologist determines that the proposed construction activities pose no risk of nest abandonment or other disruptions to nesting activities.

**Mitigation Measure BIO-3: Implement a Worker Environmental Awareness Program.**

A qualified biologist will develop and administer a worker environmental awareness training program to all construction personnel before construction activities begin. The training will include instruction regarding species identification, natural history, habitat, and protection needs of Swainson's hawk, white-tailed kite, nesting raptors, and other migratory birds.

**Mitigation Measure CUL-1: Halt Ground-Disturbing Construction Activities if Cultural Materials are Discovered.**

- ▶ If cultural materials (e.g., unusual amounts of shell, animal bone, flaked stone, bottle glass, ceramics, structure/building remains) are encountered during project construction, ground disturbances in the immediate vicinity of the find will be halted immediately and a qualified professional archaeologist will be notified regarding the discovery. The archaeologist will determine whether the resource is potentially significant as per the California Register of Historical Resources and will identify appropriate management steps needed to protect and secure identified resources.

**Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains are Discovered.**

- ▶ The procedures for the treatment of discovered human remains are contained in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains will be halted and the California Department of Water Resources or its designated representative will be notified. The department will immediately notify the county coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]).
- ▶ The responsibilities of the California Department of Water Resources for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.9 of the California Public Resources Code. The department or its appointed representative and the professional archaeologist will consult with a Most Likely Descendant determined by the Native American Heritage Commission regarding the removal or preservation and avoidance of the remains and will determine whether additional burials could be present in the vicinity.

**Mitigation Measure HYDRO-1: Prepare and Implement a Storm Water Pollution Prevention Plan.**

DWR will obtain coverage under the State Water Resources Control Board's National Pollutant Discharge Elimination System storm water permit for general construction activity (Order 2009-0009-DWQ), including preparation and submittal of a project-specific Storm Water Pollution Prevention Plan (SWPPP) at the time the notice of intent to discharge is filed. The SWPPP will identify and specify the following details:

- ▶ the use of an effective combination of appropriate erosion and sediment control best management practices (BMPs) for use on the project site at the time of construction that would reduce the potential for runoff and the release, mobilization, and exposure of pollutants from project-related construction

sites (these may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, check dams, and silt fences);

- ▶ the pollutants likely to be used during construction and operation that could be present in storm water runoff;
- ▶ spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;
- ▶ the means of waste disposal;
- ▶ personnel training requirements and procedures that would be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and
- ▶ the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.

Where applicable, BMPs identified in the SWPPP will be in place throughout all site work and construction activities. BMPs may include but would not be limited to the following measures:

- ▶ Implement temporary erosion and sediment control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances, in compliance with state standards in effect at the time of construction. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation.
- ▶ Establish permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration.
- ▶ Use drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways used to transport sediment.

A copy of the approved SWPPP will be available at all times on the construction site.

**Mitigation Measure NOISE-1: Notify Nearby Residences Prior to Construction and Limit Construction Activities.**

- ▶ Notify sensitive receptors adjacent to the project site prior to any construction activities. All grading work on the project site will be restricted to weekdays between 8 a.m. and 6 p.m.

# INITIAL STUDY

## SUTTER MAINTENANCE YARD EXPANSION PROJECT

- 1. Project Title** Sutter Maintenance Yard Expansion Project
- 2. Lead Agency Name and Address** California Department of Water Resources  
Division of Flood Management  
Flood Maintenance Office  
3310 El Camino Avenue, Suite 140  
Sacramento, CA 95821
- 3. Contact Person and Phone Number** Shelly Amrhein  
Environmental Scientist  
Phone: (916) 574-2884  
E-mail: rochelle.amrhein@water.ca.gov
- 4. Project Location** The project site is located in Sutter County, California, approximately 1 mile south of the unincorporated community of Sutter and 3 miles west of the city of Yuba City within the “Sutter, California” U.S. Geological Survey (USGS) 7.5-minute quadrangle.
- 5. Project Sponsor’s Name** California Department of Water Resources, Division of Flood Management
- 6. General Plan Designation** Agriculture, 80-acre minimum parcel size (AG-80)
- 7. Zoning** Agricultural District (AG)
- 8. Description of Project** DWR’s Division of Flood Management proposes to expand the existing Sutter Maintenance Yard (SMY) facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response. An immature walnut orchard would be uprooted and chipped into mulch on-site. The project site would be graded to allow for proper drainage, and the perimeter of the project site would be fenced with a 6-foot-high chain link fence to match the existing SMY facility. The existing chain link fence that separates the properties would be removed to combine the properties. An all-weather access made up of approximately 500 cubic yards of ¾-inch aggregate base would be placed around the metal building that is to be left on the project site. The access would incorporate a parking area to the south of the building and access to future storage sites of material and equipment as needed.
- 9. Surrounding Land Uses and Setting** The project site is surrounded by open space and agricultural lands, the existing SMY facility, and Wadsworth Canal. See Environmental Setting discussion under each issue area in Chapter 3, “Environmental Checklist.”
- 10. Other Public Agencies Whose Approval Is Required** Central Valley Regional Water Quality Control Board.

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## ACRONYMS AND OTHER ABBREVIATIONS

°F	degrees Fahrenheit
µin/sec	microinches per second
AB	Assembly Bill
AFB	Air Force Base
AQAP	air quality attainment plan
ARB	California Air Resources Board
bgs	below the ground surface
BMP	best management practice
B.P.	Before Present
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH <sub>4</sub>	methane
CLUP	comprehensive land use plan
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
Cortese List	Hazardous Waste and Substances Sites List
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel
DBE	Design Basis Earthquake
Division	Division of Flood Management

DOC	California Department of Conservation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FRAQMD	Feather River Air Quality Management District
<i>g</i>	percentage of gravity
General Plan	Sutter County General Plan
GGERP	DWR's <i>Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan</i>
GGs	giant garter snake
GHG	greenhouse gas
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
IS	initial study
lb/day	pounds per day
$L_{dn}$	day-night average level
$L_{eq}$	equivalent sound level
$L_{eq[1h]}$	1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)
$L_{max}$	maximum sound level
$L_n$	sound level exceeded "n" percent of the time
LOS	level of service
$L_v$	velocity level in decibels
mg/l	milligrams per liter
MND	mitigated negative declaration
MT	metric tons
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035
$N_2O$	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan
$NO_x$	oxides of nitrogen
$NO_2$	nitrogen dioxide
NRCS	Natural Resources Conservation Service

OHWL	ordinary high water mark
PFC	Perfluorocarbon
PM	particulate matter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
PPV	peak particle velocity
proposed project	proposed Sutter Maintenance Yard Expansion Project
RMS	root-mean-square
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SF <sub>6</sub>	sulfur hexafluoride
SMY	Sutter Maintenance Yard
SR	State Route
SVAB	Sacramento Valley Air Basin
SWP	State Water Project
SWPPP	storm water pollution prevention plan
TAC	toxic air contaminant
TCR	Transportation Concept Report
TDS	total dissolved solids
tpd	tons per day
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibels

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# 1 INTRODUCTION

The California Department of Water Resources (DWR), Division of Flood Management, has prepared this initial study/proposed mitigated negative declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines to address the environmental consequences of the proposed Sutter Maintenance Yard Expansion Project (proposed project) in Sutter County, California. DWR is the lead agency under CEQA.

DWR's Division of Flood Management proposes to expand the existing Sutter Maintenance Yard (SMY) facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response.

To satisfy CEQA requirements, this document includes:

- ▶ an IS,
- ▶ a proposed MND, and
- ▶ a notice of availability and intent to adopt an IS/MND for the proposed project.

After the required public review of this document is complete, DWR will consider adopting the proposed MND and a mitigation monitoring and reporting program, and will decide whether to proceed with the proposed project.

## 1.1 PURPOSE OF THE INITIAL STUDY

This document is an IS/MND prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The purpose of this IS/MND is to (1) determine whether project implementation would result in potentially significant or significant effects on the environment; and (2) incorporate mitigation measures into the project design, as necessary, to eliminate the project's potentially significant or significant project effects or reduce them to a less-than-significant level.

An IS/MND presents environmental analysis and substantial evidence in support of its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts. An IS/MND is neither intended nor required to include the level of detail provided in an environmental impact report (EIR).

CEQA requires that all state and local government agencies consider the environmental consequences of projects they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance (State CEQA Guidelines, Section 15367). DWR has principal responsibility for carrying out the proposed project and is therefore the CEQA lead agency for this IS/MND.

If there is substantial evidence (such as the findings of an IS) that a project, either individually or cumulatively, may have a significant effect on the physical environment, the lead agency must prepare an EIR (State CEQA Guidelines, Section 15064[a]). If the IS concludes that impacts would be less than significant, or that mitigation measures committed to by the applicant would clearly reduce impacts to a less-than-significant level, a negative declaration or MND can be prepared.

DWR has prepared this IS to evaluate the potential environmental effects of the proposed project and has incorporated mitigation measures to reduce or eliminate any potentially significant project-related impacts. Therefore, an MND has been prepared for this project.

## 1.2 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the proposed project. Based on the issues evaluated in that chapter, it was determined that the proposed project would result in no impacts on the following issue areas:

- ▶ Land use and planning
- ▶ Mineral resources
- ▶ Population and housing
- ▶ Recreation

The proposed project would result in less-than-significant impacts on the following issue areas:

- ▶ Aesthetics
- ▶ Agriculture and forestry resources
- ▶ Air quality
- ▶ Greenhouse gas emissions
- ▶ Geology and soils
- ▶ Hazards and hazardous materials
- ▶ Public services
- ▶ Transportation and traffic
- ▶ Utilities and service systems

The proposed project would result in less-than-significant impacts *after* mitigation on the following issue areas:

- ▶ Biological resources
- ▶ Cultural resources
- ▶ Hydrology and water quality
- ▶ Noise
- ▶ Mandatory findings of significance

## 1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

**Notice of Availability and Intent to Consider Adoption of a Proposed Mitigated Negative Declaration for the Sutter Maintenance Yard Expansion Project.** The Notice of Availability and Intent to Consider Adoption of a Proposed MND provides notice to responsible and trustee agencies, interested parties, and organizations of the availability of this IS, as well as, DWR's intent to consider adopting an MND for the proposed project.

**Proposed Mitigated Negative Declaration.** The proposed MND, which precedes the IS analysis, summarizes the environmental conclusions and identifies mitigation measures that would be implemented in conjunction with the proposed project.

**Initial Study.** The IS is the remainder of this document and is organized into the sections identified below.

**Table of Contents.** This section provides the organization of the IS.

**Acronyms and Other Abbreviations.** This section provides acronyms and other abbreviations used in the IS.

**Chapter 1, “Introduction.”** This chapter briefly summarizes the proposed project and describes the purpose of the IS/MND, summarizes findings, and describes the organization of this IS/MND.

**Chapter 2, “Project Description.”** This chapter describes the purpose of and need for the proposed project, general project background, and project elements, including project construction and operations and maintenance activities.

**Chapter 3, “Environmental Checklist.”** This chapter presents an analysis of environmental issues identified in the CEQA environmental checklist and determines whether project implementation would result in a beneficial impact, no impact, less-than-significant impact, less-than-significant impact with mitigation incorporated, potentially significant impact, or significant impact on the environment in each issue area. Should any impacts be determined to be potentially significant or significant after mitigation, an EIR would be required. For this project, however, mitigation measures have been incorporated as needed to reduce all potentially significant and significant impacts to a less-than-significant level.

**Chapter 4, “References Cited.”** This chapter lists the references used in preparation of this IS/MND.

**Chapter 5, “Report Preparers.”** This chapter identifies report preparers.

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## **2 PROJECT DESCRIPTION**

This chapter describes the Sutter Maintenance Yard Expansion Project (proposed project). The project location and background are described along with project objectives, project characteristics, construction activities, project operations, and discretionary actions and approvals that may be required.

### **2.1 PROJECT LOCATION AND BACKGROUND**

#### **2.1.1 PROJECT AREA**

The project site is located regionally in northern Sutter County, less than 1 mile south of the unincorporated community of Sutter, 3 miles west of the city of Yuba City, and adjacent to Colusa Highway (Highway 20) (Exhibit 2-1). The specific project site is in Section 21, Township 15 North, Range 2 East of the “Sutter, California” USGS 7.5-minute quadrangle (Exhibit 2-2). Wadsworth Canal runs north to south along the southern border of the project site.

#### **2.1.2 SUTTER MAINTENANCE YARD**

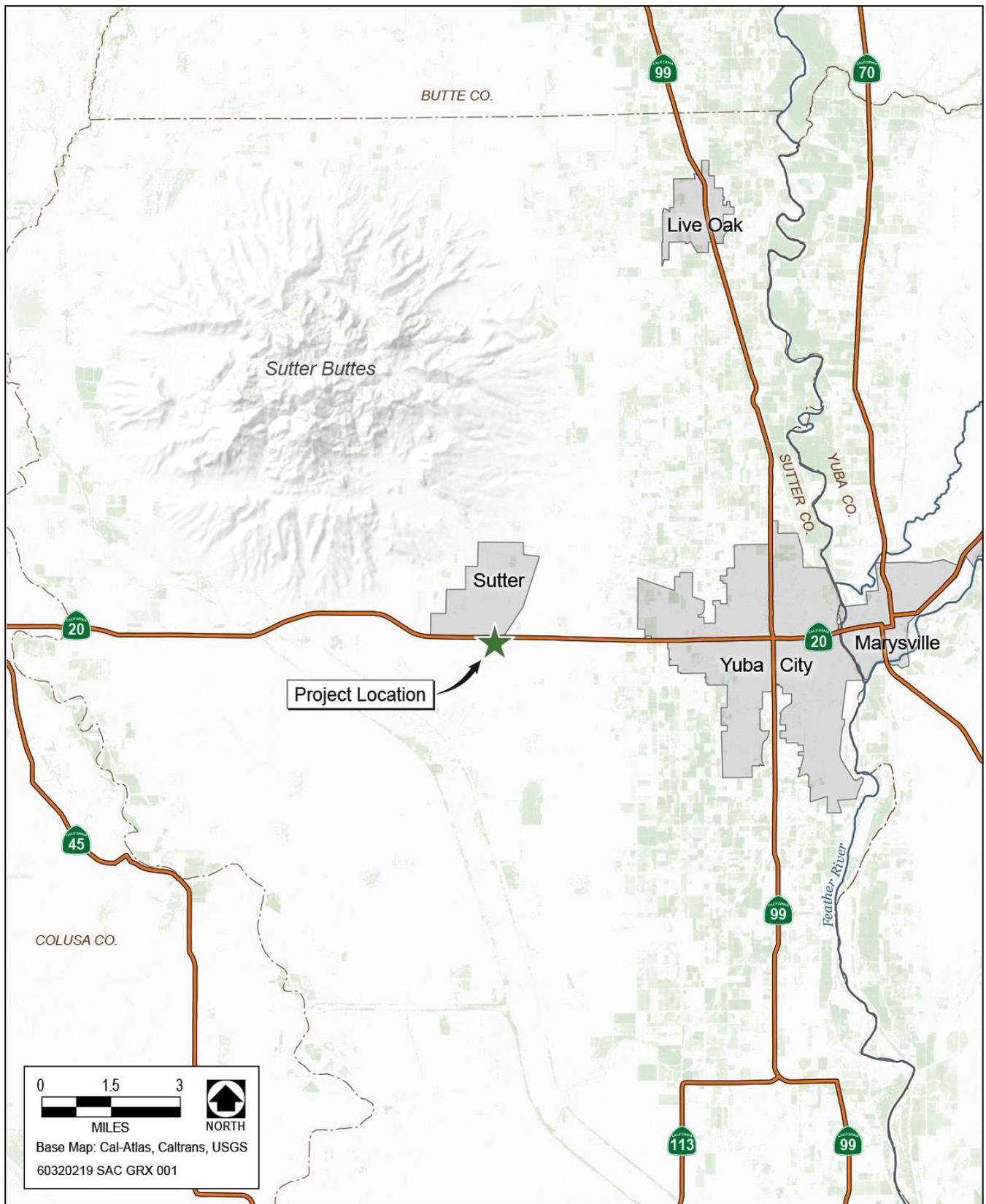
The California Department of Water Resources (DWR), Division of Flood Management’s (Division’s) Sutter Maintenance Yard (SMY) was established in 1928. Since its formation, the areas of responsibility of the SMY have continued to increase. Over the past 85 years, eight new State Maintenance Areas have been established that expanded the levee maintenance and associated emergency response obligations from 100 miles to 208 miles and includes 40,000 acres of channels, four pumping plants, five weir structures, and four spillway structures. The existing facility provides flood emergency response support to eight counties and acts as a central hub for emergency operations for the northern Sacramento River Flood Control System. The SMY contains 120 pieces of equipment, 24 flood fight readiness cargo containers, an equipment shop, two administration buildings, warehouses, and staffs approximately 31 employees. SMY staff typically keep equipment on-site and drive it off-site for operations, maintenance, and flood fighting work. This equipment includes pickup trucks, a lowboy trailer used to load a small bulldozer, and a small bulldozer. The existing SMY facility is not sufficiently sized to securely store all equipment on-site, resulting in off-site storage of some equipment that is then subjected to increased vandalism. No additional space exists for storing emergency response materials such as rock and gravel.

### **2.2 PROJECT PURPOSE AND OBJECTIVE**

The purpose and objective of the proposed project is to expand the existing SMY facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response.

### **2.3 PROPOSED PROJECT**

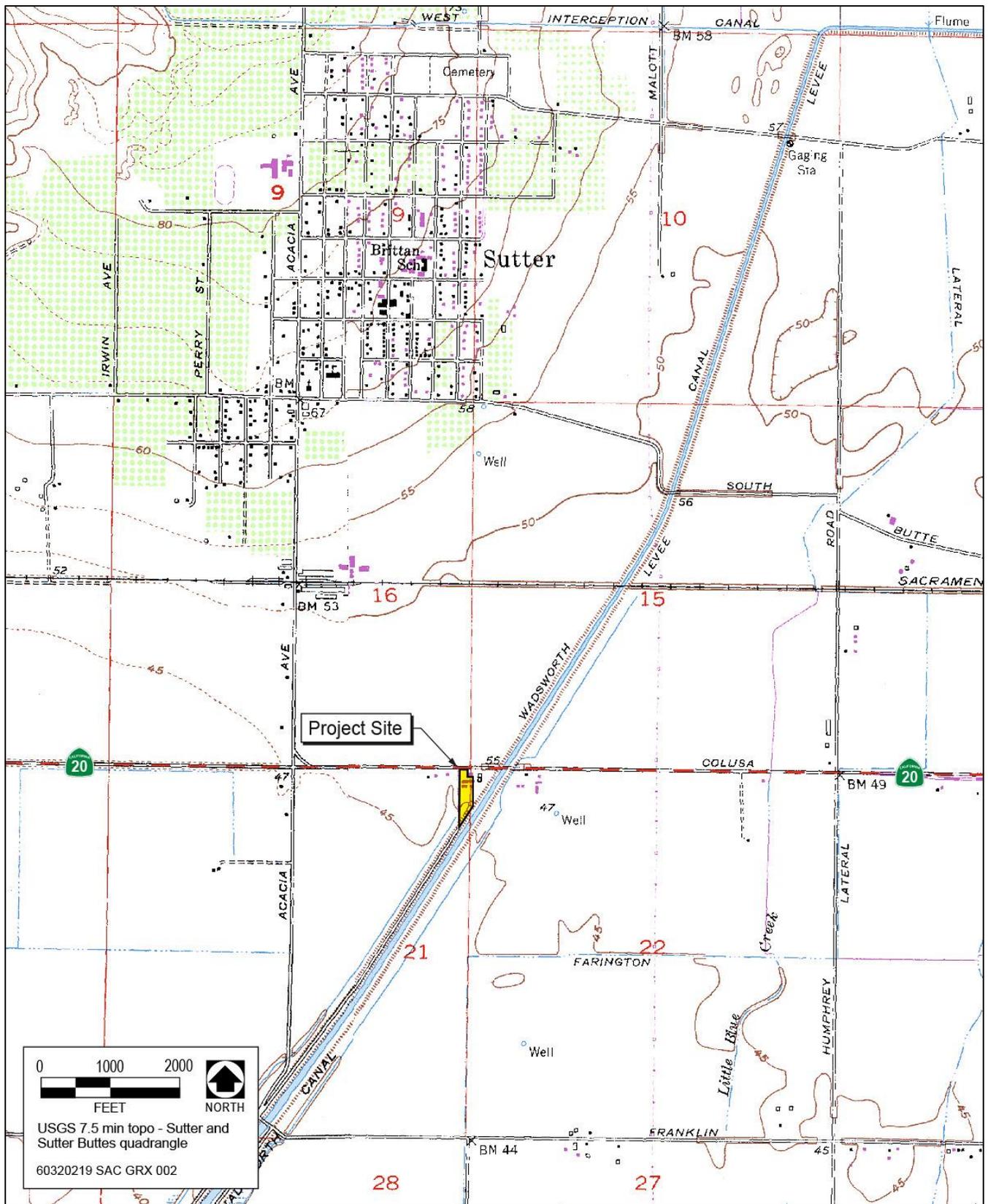
Maintaining agencies such as DWR are considered first responders and have the responsibility for stockpiling flood fight materials for timely response to a flood threat. Without additional space, the SMY facility is not able to store the appropriate level of flood fight materials and equipment.



Source: Data compiled by AECOM in 2014

**Exhibit 2-1**

**Regional Vicinity Map**



Source: Data compiled by AECOM in 2014

**Exhibit 2-2**

**Site Vicinity Map**

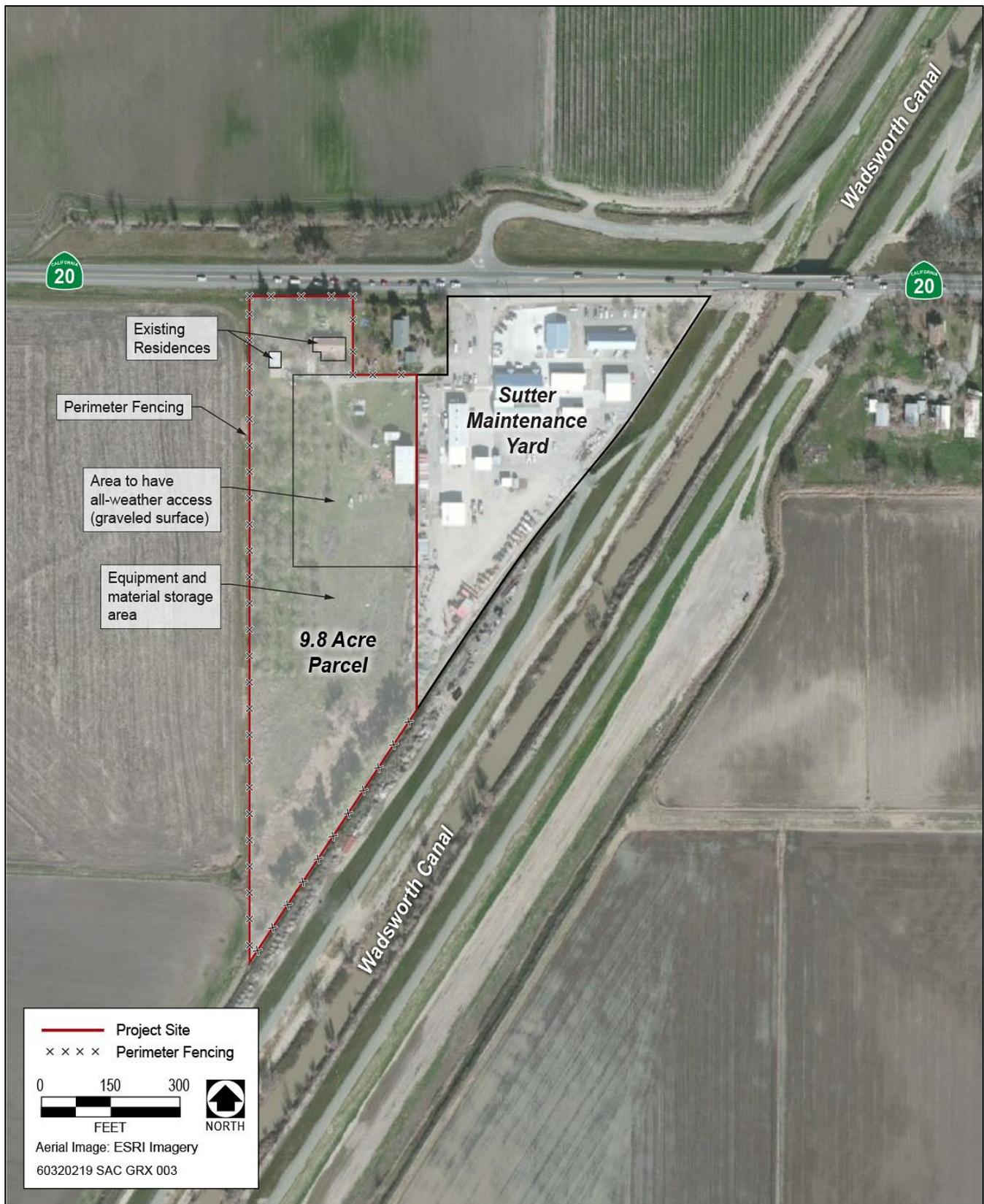
In support of the Division's mission to "prevent loss of life and reduce property damage caused by floods" and as an integral part of the Central Valley Flood Protection Plan, it is necessary to expand the existing SMY facility by 9.8 acres (in a location adjacent to the SMY). Expanding the SMY would allow for storage of strategically located emergency preparedness flood fight containers and materials, which is a requirement of Public Law 84-99 that allows for federal reimbursement funding for flood system repairs following a flood event. Expanding the facility would allow the SMY to meet basic public expectations for emergency preparedness and response throughout the increased area of responsibility that spans eight counties in Northern California.

The project site currently contains two distressed, vacant homes and a small shed; approximately 4 acres of newly planted English walnut trees; two barns; and a metal building (Exhibit 2-3). It is estimated that it will take approximately 1 year to retrofit the project site from its current use to usable space for the SMY. The vacant homes may be used by DWR in the future, possibly for storage or office space. The immature walnut orchard would be uprooted and chipped into mulch on-site. The project site would be graded to allow for proper drainage and the perimeter of the project site would be fenced with a 6-foot-high chain link fence to match the existing facility. Grading is anticipated to take approximately 2 weeks. The existing chain link fence that separates the properties would be removed to combine the properties. An all-weather access made up of approximately 500 cubic yards of ¾-inch aggregate base would be placed around a metal building that is to be left on the project site. The access would incorporate a parking area to the south of the building and access to future storage sites of material and equipment as needed.

### **2.3.1 CONSTRUCTION ACTIVITIES, DURATION, AND LABOR FORCE**

Work would begin in 2014. Clearing the immature orchard of trees and irrigation equipment would be accomplished using a backhoe. The irrigation equipment would be off-hauled to a disposal site and the trees would be uprooted, and chipped into mulch on-site. A scraper would be used to construct the border fencing. A scraper and skip loader would be used to grade the site. Approximately 500 cubic yards of ¾-inch aggregate base would be imported to the site and leveled using the scraper and skip loader. All work would be performed by the SMY staff. It is conservatively estimated that all ground-disturbing construction activities would be completed within approximately 4 months. The following summarizes proposed construction activities:

- ▶ Site Preparation – The newly planted walnut orchard would be uprooted and chipped into mulch on-site.
- ▶ Land Leveling – Scrapers and skip loaders would be used to level the project site to allow proper drainage and level pads for placement of temporary storage bins and perimeter fencing.
- ▶ Boundary Fencing – A 6-foot-high chain link fence would be constructed around the perimeter of the project site, tying in to the existing fence at the north and south ends of the western boundary. The existing fence located along the west boundary of the existing facility would be removed and stockpiled to allow for continuous access from the existing SMY to the project site.
- ▶ Storage Sheds - Temporary metal storage containers would be placed on the project site as needed to accommodate for storage of flood fight equipment and supplies.



Source: Data compiled by AECOM in 2014

**Exhibit 2-3**

**Project Site Map**

- ▶ All-Weather Access - Approximately 500 cubic yards of ¾-inch aggregate base would be used to provide all-weather access from the existing SMY facility to the storage sheds and stockpile locations on the project site.

### **2.3.2 OPERATIONAL AND MAINTENANCE ACTIVITIES, DURATION, AND LABOR FORCE**

The project site would be used to store flood fight materials indefinitely. The proposed project would include occasional and infrequent reorganization and movement of equipment and materials on the project site, but these activities would be minimal until some or all of the materials must be transported to a critical erosion site or levee break. The operational activities at the Sutter Maintenance Yard are ongoing, and the expansion project would not add any new operational activities, nor would it increase existing activities. No additional staffing is necessary for operational and maintenance activities.

### **2.3.3 ENVIRONMENTAL COMMITMENTS**

DWR has developed the *Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan* (GGERP) to guide its efforts in reducing greenhouse gas (GHG) emissions (DWR 2012). The proposed project would implement the following preconstruction and final design best management practices (BMPs):

- ▶ 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. 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.

The following applicable BMPs are incorporated into the design of the proposed project:

- ▶ BMP 7. Minimize idling time by requiring that equipment be shut down after 5 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 8. 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 will be detailed in an Air Quality Control Plan prior to commencement of construction.
- ▶ BMP 9. Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every 2 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 will be documented in an Air Quality Management Plan prior to commencement of construction.

- ▶ 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 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.

In addition, DWR would avoid the unvegetated drainage ditch that occurs along the southern one-third of the eastern boundary of the project site and the unnamed ditch at the toe of Wadsworth Canal during all project construction and operational activities.

The implementation of these commitments will minimize potential environmental impacts from the proposed project.

## **2.4 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS**

As the lead agency, DWR has the principal responsibility for approving and carrying out the proposed project and for ensuring that the requirements of CEQA, the State CEQA Guidelines, and all other applicable regulations are met. The Central Valley Regional Water Quality Control Board also would have permitting approval over portions of the project under Section 402 of the Clean Water Act; a National Pollutant Discharge Elimination System permit (for construction) would be required.

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### 3 ENVIRONMENTAL CHECKLIST

#### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

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

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

California Department of Water Resources,  
Division of Flood Management

\_\_\_\_\_  
Agency

### 3.1 AESTHETICS

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

#### 3.1.1 ENVIRONMENTAL SETTING

The terrain in the project area and vicinity is generally flat. Elevations on the project site range from approximately 47 to 48 feet above mean sea level, sloping slightly towards the southwest. The current land use of the surrounding area is primarily agricultural. Active agricultural fields also are located north, west, and south of the project site. Wadsworth Canal makes up the southern boundary of the project site, and the existing SMY is located to the east of the project site. One occupied residence is located adjacent to the northeastern boundary of the project site, approximately 120 feet west of the entrance of the existing SMY and approximately 50 feet east of the project site entrance.

#### 3.1.2 DISCUSSION

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

*No Impact.* A scenic vista is generally defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality, or a natural or cultural resource that is indigenous to the area. Although views of the project area include agricultural land and open space, these views are not considered a unique scenic resource such as a major river, wildlife area, or Sutter Buttes, as determined in the Sutter County General Plan (Sutter County 2011). The proposed project would not have a substantial adverse effect on a scenic vista. Therefore, no impact would occur.

**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 officially designated or eligible scenic highways in Sutter County (Caltrans 2011); therefore, implementing the proposed project would not damage scenic resources within a state scenic highway. No impact would occur.

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

*Less-than-Significant Impact.* The presence of heavy equipment during grading activities would temporarily change the visual character of the site over the short-term, but this change would not be substantial given the scale of the project. The proposed project would change the long-term visual character of the project site through removal of the immature walnut orchard, grading, and installation of a fence around the project site. However, the use of the project site for storage of flood fight equipment and supplies is consistent with the adjacent land use at the existing SMY, and this use would not substantially degrade the existing visual character of the site and its surroundings. This impact would be less than significant.

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

*Less-than-Significant Impact.* Construction activities would occur during daylight hours and would not require lighting. Lighting may be needed during occasional and infrequent flood fighting activities; however, these activities would be temporary in nature and would be no different than activities that currently take place at the SMY. Implementing the project would not create temporary or permanent sources of substantial light or glare that would affect day or nighttime views in the area. This impact would be less than significant.

### 3.2 AGRICULTURE AND FORESTRY RESOURCES

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

#### 3.2.1 ENVIRONMENTAL SETTING

The project site includes approximately 4 acres of newly planted walnut orchard. The trees are generally less than 7 feet tall and do not currently have production value. Additional information about land uses within and adjacent to the project site are provided in Section 3.10, “Land Use and Planning.”

The California Department of Conservation’s (DOC’s) Important Farmland classifications—Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance—recognize the land’s

suitability for agricultural production by considering physical and chemical characteristics of the soil, such as soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth. The classifications also consider location, growing season, and moisture available to sustain high-yield crops. Together, Important Farmland and Grazing Land are defined by DOC as “Agricultural Land” (Public Resources Code Sections 21060.1 and 21095).

Appendix G of the State CEQA Guidelines states that conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to nonagricultural use constitutes a significant environmental effect. According to the Sutter County Important Farmland map, published by DOC’s Division of Land Resource Protection, the project site is designated as Other Land, which is defined as land that generally includes low-density rural developments, vegetative and riparian areas not suitable for livestock grazing, confined-animal agriculture facilities, and vacant and nonagricultural land surrounded on all sides by urban development (DOC 2011).

Under the California Land Conservation Act of 1965, also known as the Williamson Act, local governments can enter into contracts with private property owners to protect land (within agricultural preserves) for agricultural and open space purposes. No portions of the project site or adjacent parcels are held under Williamson Act contracts (DOC 2013). The nearest property currently under active Williamson Act contracts is located west of Acacia Avenue, which is approximately 0.4 mile west of the project site (DOC 2013).

Active agricultural fields also are located along the southern and western border of the project site, along Highway 20 north of the project site, and east and southeast of the Wadsworth Canal. Most of these agricultural lands are designated as Important Farmland (DOC 2011).

### **3.2.2 DISCUSSION**

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

*No Impact.* As discussed previously, the project site is designated as Other Land; this land use designation is not considered by DOC to be Important Farmland. Therefore, implementing the proposed project would not directly or indirectly convert Important Farmland to nonagricultural uses. No impact would occur.

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

*No impact.* No portions of the project site or adjacent parcels are held under Williamson Act contracts (DOC 2013). The project site is zone by Sutter County as General Agricultural District (AG). This district was established to provide areas for general farming, low-density uses, open spaces, and, by use permit, limited retail service uses. Necessary public utility and safety facilities are an allowable use within the AG zoning designation. Therefore, the use of the project site for additional storage of equipment and materials needed for flood maintenance and emergency response to prevent loss of life and reduce property damage caused by floods would not conflict with the AG zoning designation. Implementing the proposed project would not conflict with existing zoning for agricultural uses or conflict with a Williamson Act contract. No impact would occur.

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

*No Impact.* The project site is not zoned as forestland, timberland, or a Timberland Production Zone. Therefore, implementing the proposed project would not conflict with existing zoning for, or cause rezoning of, forestry resources. No impact would occur.

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

*No Impact.* Section 12220(g) of the California Public Resources Code defines forestland as land that can support 10% native tree cover and woodland vegetation of any species (including hardwoods) under natural conditions, and that allows for management of one or more forest resources (timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation) and other public benefits. The project site does not contain forestland as defined by Section 12220(g). Therefore, implementing the proposed project would not result in the loss of forestland or conversion of forestland to nonforest uses. No impact would occur.

**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?**

*Less-than-Significant Impact.* For the reasons described in response to question 3.2.2(a) above, implementing the proposed project would not directly result in the conversion of Important Farmland to nonagricultural uses. The proposed project would uproot the 4-acre walnut orchard; however, the orchard is immature and does not have production value. In addition, the proposed project would not result in other changes in the physical environment that could indirectly result in the conversion of agricultural land, including Important Farmland, to nonagricultural uses. The use of the project site for additional storage of equipment and materials needed for flood maintenance and emergency response would not affect the continuation of agricultural operations in other areas outside of the project site.

Furthermore, for the reasons described in response to question 3.2.2(d) above, implementing the proposed project would not result in the conversion of forestland to non-forest uses. This impact would be less than significant.

### 3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
<b>Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.3.1 ENVIRONMENTAL SETTING

The project site is located in Sutter County, which is part of the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County.

The SVAB is relatively flat, bordered by mountains to the east, west, and north. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta, bringing with it pollutants from the heavily populated San Francisco Bay Area. The climate is characterized by hot, dry summers and cool, rainy winters. Periods of dense and persistent low-level fog that are most prevalent between storms are characteristics of SVAB winter weather. From May to October, the region’s intense heat and sunlight lead to high ozone concentrations. Summer inversions are strong and frequent, but are less troublesome than those that occur in fall. Autumn inversions, formed by warm air subsiding in a region of high pressure, have accompanying light winds that do not provide adequate dispersion of air pollutants.

The federal Clean Air Act and the California Clean Air Act (CCAA), enforced by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB), establish health-based air quality standards at the federal and state levels. National ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) were established for the following criteria pollutants: carbon monoxide (CO), ozone, sulfur dioxide, nitrogen dioxide, particulate matter less than 10 microns in diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), and lead. These standards have been established with a margin of safety to

protect the public's health. Both EPA and ARB designate areas of the state as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the federal Clean Air Act and the CCAA, respectively.

An "attainment" designation for an area signifies that pollutant concentrations did not violate the NAAQS or CAAQS for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as identified in the criteria. A "maintenance" designation indicates that the area was previously nonattainment and is currently attainment for the applicable pollutant; the area must demonstrate continued attainment for a specified number of years before it can be redesignated as an attainment area. An "unclassified" designation signifies that data do not support either an attainment or a nonattainment status.

The Feather River Air Quality Management District (FRAQMD) is currently designated as a nonattainment area for the PM<sub>2.5</sub> NAAQS. On January 10, 2013, EPA determined that the area had attained the PM<sub>2.5</sub> NAAQS based on 2009–2011 monitoring data. However, that action did not constitute a redesignation to attainment because EPA has not yet approved a maintenance plan; thus, the region is still currently designated as nonattainment for PM<sub>2.5</sub>. For all other NAAQS, Sutter County is designated as an attainment or unclassified area (ARB 2014). Sutter County is also a nonattainment-transitional area for the 1-hour and 8-hour ozone CAAQS, and a nonattainment area with respect to the PM<sub>10</sub> CAAQS (ARB 2014). For all other CAAQS, Sutter County is designated as either an attainment area or an unclassified area.

In 1998, FRAQMD released and adopted its Indirect Source Review guidelines document for assessment and mitigation of air quality impacts under CEQA. The guidelines provide lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The guide contains criteria and thresholds for determining whether a project may have a significant adverse impact on air quality, and methods available to mitigate impacts on air quality. In June 2010, FRAQMD updated its Indirect Source Review Guidelines to reflect the most recent methods recommended to evaluate air quality impacts and mitigation measures for land use development projects. This analysis uses guidance and thresholds of significance from the 2010 FRAQMD Indirect Source Review Guidelines to evaluate the proposed project's air quality impacts (FRAQMD 2010).

### **3.3.2 DISCUSSION**

#### **SIGNIFICANCE CRITERIA**

According to Section 15002(g) of the State CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the State CEQA Guidelines, the significance of an activity may vary with the setting (e.g., air basin, applicable significance thresholds). Thus, in addition to the criteria in Appendix G of the State CEQA Guidelines, the significance criteria established by the applicable air quality management district may be relied on to make the above determinations. Thus, this analysis also evaluates the proposed project's air quality impacts pursuant to FRAQMD's 2010 Indirect Source Review Guidelines.

According to FRAQMD's 2010 Indirect Source Review Guidelines, a project would be considered to have a significant impact on air quality if it would:

- ▶ generate daily construction or operational emissions that would exceed 25 pounds per day for reactive organic gases (ROG), 25 pounds per day for oxides of nitrogen (NO<sub>x</sub>), or 80 pounds per day for PM<sub>10</sub>; or
- ▶ generate annual construction or operational emissions of ROG or NO<sub>x</sub> that exceed 4.5 tons per year.

## **METHODOLOGY**

Short-term construction emissions were modeled using the California Emissions Estimator (CalEEMod) Version 2013.2.2 (CAPCOA 2013). CalEEMod contains the most recent and up-to-date emission factors for off- and on-road vehicles and equipment. In addition, CalEEMod includes region-specific default assumptions for construction activities. In the case of the proposed project, Sutter County was used to estimate emissions.

Construction parameters used to model emissions were obtained from DWR. Where project-specific information was not available, default assumptions contained in CalEEMod were used. It should be noted that default assumptions typically result in more conservative emissions estimates to avoid underestimating emissions when project-specific information is not available. See Appendix A for detailed CalEEMod outputs.

The project site would be used to store flood fight materials. Therefore, it is anticipated that following construction of the proposed project, long-term operational emissions would be nominal. The proposed project (i.e., maintenance yard) would include occasional and infrequent reorganization and movement of equipment and materials on the project site, which would generate minimal emissions. It is not anticipated that long-term operational emissions associated with the proposed project would increase beyond those of the existing baseline conditions. Thus, no net increase in operational emissions are anticipated from implementation of the proposed project. Therefore, for the purposes of this analysis, operational emissions associated with the proposed project are considered nominal and are not quantified.

## **IMPACT ANALYSIS**

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

#### **Construction Emissions**

*Less-than-Significant Impact.* Project consistency is determined based on whether the proposed project would conflict with or obstruct implementation of the air quality attainment plan (AQAP) and/or applicable portions of the state implementation plan, which would lead to increases in the frequency or severity of existing air quality violations. The CCAA requires a triennial assessment of the extent to which air quality has improved and pollutant emissions have been reduced as a result of implementing control measures developed in the AQAP. The air districts in the Northern Sacramento Valley Planning Area, which includes Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties, adopted the 2009 Triennial AQAP on June 7, 2010 (FRAQMD 2010). The AQAP, drafted in compliance with the requirements set forth in the CCAA, specifically addresses the CAAQS for ozone and PM<sub>10</sub>. The 2009 Triennial AQAP contains the control measures included in the previously adopted 2006 AQAP and additional control measures for stationary sources.

FRAQMD also adopted the PM<sub>2.5</sub> Redesignation Request and Maintenance Plan in April 2013 (FRAQMD 2010). The PM<sub>2.5</sub> plan demonstrates that the area has attained the 24-hour PM<sub>2.5</sub> NAAQS standard with implementation of permanent and enforceable measures adopted by FRAQMD and ARB.

Consistency with the AQAPs is determined by analyzing a project with the assumptions in the plans. Short-term construction activities for the proposed project would involve the use of off-road equipment and haul trucks, as well as worker commute trips. Project operations would not substantially increase long-term operational mobile-source emissions that were previously included in the AQAP. However, as discussed in greater detail under question 3.3.2(b) below and summarized in Table 3.3-1, construction activities for the proposed project would not generate daily emissions of any pollutant that would exceed FRAQMD's thresholds of significance. FRAQMD thresholds of significance are considered the allowable emissions limits for each project to avoid impeding the region's attainment and maintenance of ambient air quality standards, which is the goal of AQAPs. Accordingly, construction of the proposed project would not exceed the assumptions used to develop the current AQAP and would not obstruct or conflict with the applicable air quality plan. Therefore, this impact would be less than significant.

<b>Table 3.3-1 Sutter Maintenance Yard Unmitigated Construction Emissions</b>				
Construction Phase	Pollutants (lb/day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Removal of Orchard	0.30	2.84	0.65	0.25
Site Grading	1.31	16.25	2.54	1.21
All-Weather Access	1.35	17.45	1.55	1.12
Maximum Daily Emissions	1.35	17.45	2.54	1.21
FRAQMD Thresholds of Significance	25	25	80	– <sup>1</sup>
Exceeds Thresholds?	No	No	No	–
Notes: FRAQMD = Feather River Air Quality Management District; lb/day = pounds per day; NO <sub>x</sub> = oxides of nitrogen; PM <sub>2.5</sub> = particulate matter with aerodynamic diameter less than 2.5 microns; PM <sub>10</sub> = particulate matter with aerodynamic diameter less than 10 microns; ROG = reactive organic gases Units may not appear to add exactly due to rounding. <sup>1</sup> FRAQMD has not developed a threshold of significance for PM <sub>2.5</sub> . Emissions are shown for informational purposes. Source: Data compiled by AECOM in 2014				

## Operational Emissions

*Less-than-Significant Impact.* As discussed above, long-term operational emissions following buildout of the proposed project would not increase beyond those of existing conditions. It is not anticipated that the occasional and infrequent operational activities associated with the proposed project would generate air quality emissions that exceed any FRAQMD thresholds of significance. Therefore, long-term operations of the proposed project would not exceed the assumptions used to develop the current AQAP and would not obstruct or conflict with the applicable air quality plan. Therefore, this impact would be less than significant.

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

**Construction Emissions**

*Less-than-Significant Impact.* Construction emissions are considered short-term and temporary, but have the potential to represent a significant impact with respect to air quality. Construction of the proposed project would temporarily generate emissions of ROG and NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Emissions of the ozone precursors ROG and NO<sub>x</sub> are generated primarily by on-road mobile sources (i.e., delivery vehicles, construction worker vehicles) and off-road construction equipment. The level of emissions generated would vary from day to day as a function of vehicle trips per day for construction workers; the types and number of heavy-duty, off-road equipment used; and the intensity and frequency of their operation.

Fugitive particulate matter (PM) dust is one of the pollutants of greatest concern with respect to construction activities. Construction-related fugitive PM dust emissions can vary greatly depending on the level of activity, the specific operations taking place, the number and types of equipment operated, vehicle speeds, local soil conditions, weather conditions, and the amount of earth disturbance. General site grading and movement of fill material for the all-weather access would be the primary source of fugitive PM dust emissions from the proposed construction activities. Movement of off-road construction equipment and work trucks on unpaved roads can also generate fugitive PM dust emissions.

As shown in Table 3.3-1, the proposed project's unmitigated construction emissions would not exceed any FRAQMD thresholds of significance. FRAQMD thresholds of significance are the allowable emissions limit for projects to avoid generating substantial amount of emissions that could violate or contribute substantially to an existing or projected air quality violation. Therefore, because the proposed project's construction-related emissions would not exceed any FRAQMD thresholds of significance, the proposed project would not violate or contribute substantially to an air quality violation. This impact would be less than significant.

**Operational Emissions**

*Less-than-Significant Impact.* As discussed above, long-term operational emissions following buildout of the proposed project would not increase beyond those of existing conditions. It is not anticipated that the occasional and infrequent operational activities associated with the proposed project would generate air quality emissions that exceed any FRAQMD thresholds of significance. Therefore, long-term operations of the proposed project would not violate or contribute substantially to an existing or projected air quality violation. Therefore, this impact would be less than significant.

**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)?**

**Construction Emissions**

*Less-than-Significant Impact.* The cumulative analysis focuses on whether a specific project would result in a cumulatively considerable incremental contribution of pollutant emissions to a significant cumulative impact. By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SVAB, and this regional impact is cumulative rather than being

attributable to any one source. A project's emissions may be individually limited but cumulatively considerable when taken in combination with past, present, and future development projects.

FRAQMD's thresholds of significance are relevant to whether a project's individual emissions would result in a cumulatively considerable incremental contribution to significant cumulative air quality conditions. These thresholds are designed to identify those projects that would result in significant levels of air pollution on a project level, and to assist the region in attaining the applicable CAAQS and NAAQS. Projects that would exceed these thresholds would be considered significant on a project level and would also be considered to contribute a cumulatively considerable incremental amount of pollutants to regional emissions. As discussed previously under questions 3.3.2(a) and (b), the proposed project would generate short-term and temporary construction-related emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> that would contribute to regional air quality, but at levels that would not exceed any FRAQMD thresholds of significance. Therefore, it is not anticipated that the proposed project would generate a cumulatively considerable incremental contribution related to air quality and construction emissions. This impact would be cumulatively less than considerable.

### **Operational Emissions**

*Less-than-Significant Impact.* As discussed above, long-term operational emissions following buildout of the proposed project would not increase beyond those of existing conditions. It is not anticipated that the occasional and infrequent operational activities associated with the proposed project would generate air quality emissions that would exceed any FRAQMD thresholds of significance. Therefore, long-term operations of the proposed project would not generate a cumulatively considerable incremental contribution related to air quality and operational emissions. Therefore, this impact would be cumulatively less than considerable.

#### **d) Expose sensitive receptors to substantial pollutant concentrations?**

### **Construction Emissions**

*Less-than-Significant Impact.* Some people are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, older adults, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The nearest and only sensitive receptor near the proposed project is a single-family residential property located approximately 50 feet east of the project site.

The proposed project would generate diesel PM exhaust emissions from heavy-duty construction equipment and on-road haul trucks. Diesel PM has been classified as a toxic air contaminant (TAC) by ARB. Health effects from carcinogenic TACs (i.e., diesel PM) are typically described in terms of individual cancer risk, which can be evaluated in a health risk assessment based on a 70-year lifetime exposure to TACs.

Activities to convert the project site to a maintenance yard would occur over a period of approximately 1 year. However, only a fraction of that time would involve construction activities (i.e., use of heavy-duty construction equipment). The orchard removal, grading, and all-weather-access construction phases would be the most intensive construction phases and for the purposes of this air quality assessment were estimated to collectively last for approximately 4 months. Therefore, the total exposure time to intensive construction activities would be less

than 1% of the total exposure time for a typical health risk assessment. In addition, even during the more intensive construction phases, operation of heavy-duty construction equipment would be intermittent throughout the day and would cease at night. Thus, construction-related TAC emissions would not be emitted as a constant plume from the project site; rather, intermittent releases would occur, allowing for greater dispersion and dilution of pollutants. Therefore, considering the information above and the intermittent, relatively short, and temporary nature of the exposure in combination with the dispersive properties of diesel PM (Zhu et al. 2002), it is not anticipated the proposed project would expose sensitive receptors to significant levels of diesel PM emissions. This impact of the proposed project's construction emissions would be less than significant.

## **Operational Emissions**

*Less-than-Significant Impact.* After construction activities, occasional and infrequent operational activities and subsequent TAC emissions would be nominal. Thus, it is not anticipated that operational activities would expose sensitive receptors to substantial operational TAC concentrations. Therefore, this impact would be less than significant.

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

## **Construction Emissions**

*Less-than-Significant Impact.* The occurrence and severity of odor impacts depends on numerous factors including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and cause citizens to submit complaints to local governments and regulatory agencies. Projects with the potential to frequently expose individuals to objectionable odors are deemed to have a significant impact. Typical facilities that generate odors include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities.

A potential source of odors during construction activities is diesel-fueled equipment exhaust. However, equipment exhaust would be localized and generally confined to the immediate area surrounding the project site. Typical construction techniques would be used for the proposed project, and the odors would be temporary and typical of most construction sites. In addition, even during the most intensive construction phases, construction equipment use would be intermittent throughout the day and would not generate a constant source of odor emissions. Following completion of the proposed project, all construction activities and associated odor emissions would cease. Considering the information above and the highly dispersive properties of diesel PM, it is not anticipated that the proposed project's construction activities would create objectionable odors that would affect a substantial number of people. This impact would be less than significant.

## **Operational Emissions**

*Less-than-Significant Impact.* After construction activities, operational activities and subsequent odor emissions would not increase beyond those of existing conditions. Thus, it is not anticipated that operational activities would create objectionable odors that would affect a substantial number of people. This impact would be less than significant.

### 3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, or the National Marine Fisheries Service	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.4.1 ENVIRONMENTAL SETTING

##### INTRODUCTION AND METHODS

This section describes the existing biological resources and potential effects on those resources from project implementation. An AECOM biologist conducted a reconnaissance-level field survey of the project site on April 22, 2014, to identify habitat that may be suitable for special-status plant and wildlife species. The survey was conducted by traversing the entire site; recording observations of habitat, plants, and wildlife present; and evaluating the existing habitat for its potential to support special-status plants and wildlife. The descriptions and analysis in this section are based on information gathered during the site visit and information contained in the *Phase 1 Environmental Site Assessment, Sutter Maintenance Yard Property Acquisition* (DWR 2013). Additional information was obtained reviewing biological resource databases including the United States Fish and Wildlife

(USFWS) Endangered Species Database (USFWS 2014), California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDDB) (CNDDDB 2014), and the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants (CNPS 2014). The database searches included the following four USGS 7.5-minute quadrangles: Sutter, Sutter Buttes, Gilsizer Slough, and Tisdale Weir.

The project site is located within a rural agricultural and residential area of Sutter County. Currently the majority of the 9.8-acre site contains an actively maintained walnut orchard; there are two unoccupied homes and small shed on the north end of the site, and two barns and a metal building on the east side of the site. The south end of the site is bordered by a windrow of tall eucalyptus trees. Surrounding land use is agriculture to the north, west, and south, and industrial to the east, which is the location of the existing DWR SMY. Topography on-site is nearly level, from approximately 47 feet above mean sea level in the south to approximately 48 feet in the north.

## HABITATS AND WILDLIFE

Terrestrial plant communities on the project site include orchard/disturbed lands and nonnative annual grassland. Developed areas within the project site are composed of gravel access roads to the houses and barns, and the structures themselves.

Nonnative annual grassland is present in the northeast of the site, and north of and around the barns and metal building. South of the barn, the nonnative annual grassland area continues in a small strip south along the fence line to the south end of the project site, along with a drainage ditch. Nonnative annual grassland is also present along the southern boundary and in the southwest corner of the project site. The dominant grasses in this habitat are slender oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild barley (*Hordeum murinum* ssp. *leporinum*), Johnson grass (*Sorghum halapense*), and Italian ryegrass (*Festuca perennis*). Common forbs in this habitat include field bindweed (*Convolvulus arvensis*), redstem filaree (*Erodium cicutarium*), prickly lettuce (*Lactuca seriola*), dissected geranium (*Geranium dissectum*), bull thistle (*Cirsium vulgare*), and black mustard (*Brassica nigra*). Less abundant forbs include curly dock (*Rumex crispus*), common groundsel (*Senecio vulgaris*), sow thistle (*Sonchus asper*), common bedstraw (*Galium aparine*), Italian thistle (*Carduus pycnocephalus*), yellow sweetclover (*Melilotus indica*), and hairy vetch (*Vicia villosa* ssp. *varia*). A large patch of Baltic rush (*Juncus balticus* ssp. *ater*) occurs within a low spot in the nonnative annual grassland area at the southwest corner of the project site.

Grassland habitats, both native and non-native, attract a variety of seed-eating and insect-eating birds and mammals and can be important foraging grounds for bats and birds of prey. California quail (*Callipepla californica*), mourning dove (*Zenaidura macroura*), and western meadowlark (*Sturnella neglecta*) are a few granivores that nest and forage in grasslands; and, species such as the western scrub-jay (*Aphelocoma californica*), barn swallow (*Hirundo rustica*), and northern mockingbird (*Mimus polyglottos*) use grassland habitat for foraging. Mammal species such as the California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), and Botta's pocket gopher (*Thomomys bottae*) also occur within grasslands.

Small rodents in grassland attract raptors (i.e., birds of prey), such as owls, which hunt at night, as well as day-hunting raptors, such as the red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*B. lineatus*). Other raptor species that forage in grasslands include: Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), prairie falcon (*Falco mexicanus*), white-tailed kite (*Elanus leucurus*), and Swainson's hawk (*Buteo swainsoni*). Burrowing owls

(*Athene cunicularia*) forage and nest in grassland habitats characterized by short vegetation and ground squirrel activity. Grassland habitats also support reptiles such as alligator lizard (*Gerrhonotus* spp.) and western fence lizard (*Sceloporus occidentalis*). On the project site, the majority of the nonnative annual grassland areas were devoid of any burrows and no ground squirrels or evidence of ground squirrel activity was observed. Some small burrows, averaging approximately 2 inches, were observed along the banks of the unnamed drainage canal at the southern boundary of the project site.

The portion of the site not occupied by non-native grassland consists of disturbed lands, the majority of which is recently planted English walnut (*Juglans regia*) orchard, with trees generally under 7 feet with minimal branching or canopy spread. At the south end of the project site is a windrow of mixed eucalyptus including river red gum (*Eucalyptus camaldulensis*) and ribbon gum (*E. viminalis*). South of the windrow is an agricultural drainage ditch that runs parallel to the toe of the levee of Wadsworth Canal. There is a lawn area surrounding the houses that had been recently mown at the time of the site visit; although, it appeared to include common species, such as annual bluegrass (*Poa annua*) and Bermuda grass (*Cynodon dactylon*), as well as some weedy forbs, such as cheeseweed (*Malva parviflora*) and black mustard. Large mature trees present in the landscaped area around the homes include white mulberry (*Morus alba*), Deodar cedar (*Cedrus deodara*), Bishop pine (*Pinus muricata*), and velvet ash (*Fraxinus velutina*).

The intense maintenance and harvesting associated with active orchards reduce their overall wildlife habitat value, although a few wildlife species use orchards for foraging or nesting. Small mammals, such as rabbits and rodents, forage on the leaves and grasses within orchards and, in turn, may attract a variety of predators, including snakes, various raptors, red fox, and feral cats (*Felis catus*). Other mammalian species known to use such agricultural areas include coyote, raccoon (*Procyon lotor*), striped skunk, and opossum (*Didelphis virginianus*). Fallow orchards that are not actively disturbed by people provide nesting habitat for passerines (perching birds), nonpasserine land birds (*i.e.*, doves), and raptors. Species inured to human habitation, such as the western scrub-jay, American crow (*Corvus brachyrhynchos*), mourning dove, and acorn woodpecker (*Melanerpes formicivorus*), among others, may use orchard trees for nesting.

Wildlife species associated with generally disturbed lands are similar to those associated with orchards and other agricultural croplands including raccoon, opossum, European starling (*Sturnus vulgaris*), and mourning dove. Killdeer (*Charadrius vociferus*) are also often associated with open, disturbed substrates such as the gravel roads on-site. Burrowing owls may nest in disturbed habitats, fallow fields, and on the margins of cultivated areas if they are characterized by short vegetation and if burrows from ground squirrel activities are available. As with grassland habitat, wildlife species that feed on seeds or other parts of the vegetation, including finches, goldfinches, sparrows, and a variety of rodents, may occur in this habitat type, and insects present in disturbed habitats provide food for species such as Brewer's blackbird (*Euphagus cyanocephalus*) and western fence lizard.

Wildlife observed during the site visit include a pair of red-tailed hawks flying over the north and south ends of the site, European starling, red-winged blackbird, Brewer's blackbird, white-crowned sparrow (*Zonotrichia leucophrys*), domesticated cat, and Pacific chorus frog (*Pseudacris regilla*).

## **WATERS OF THE UNITED STATES**

An unvegetated drainage ditch occurs along the southern one-third of the eastern boundary of the project site parallel to the fence of the existing SMY. The drainage originates within an isolated grassy field north of

Highway 20. It is culverted flowing west under an unnamed farm road, then is open for a short distance and turns south. The drainage is culverted under the highway, open again along the entrance drive of the existing SMY property, culverted under the private driveway, then open immediately north of the northern fence-line of the SMY. The drainage runs south under the fence into the yard within an approximately 48-inch corrugated pipe culvert, and crosses under the fence into the project site where it daylight. The drainage conveys runoff from the surrounding roads at the origin, south along the properties and joins an unnamed ditch that runs along the southern boundary of the project site, parallel to Wadsworth Canal at the toe of the levee. Because the drainage is constructed in uplands and drains only uplands, it is not likely subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA).

The unnamed ditch at the toe of the Wadsworth Canal levee runs southwest to the Sutter Bypass. This ditch was dry at the time of the site visit on April 22, 2014. This ditch exhibits an ordinary high water mark (OHWM) and supports patches of narrow-leaved cattail (*Typha angustifolia*), a wetland indicator species. Given its location adjacent to, and at the toe of the levee of Wadsworth Canal, it is likely hydrologically connected to the canal waters. Because this ditch is likely connected to Wadsworth Canal, exhibits an OHWM, and supports wetland indicator species, this ditch is likely subject to regulation by USACE under Section 404 of the CWA.

### **SPECIAL-STATUS SPECIES**

Special-status species include plants and animals in the following categories:

- ▶ species officially listed by the State of California or the Federal government as endangered, threatened, or rare;
- ▶ candidates for state or Federal listing as endangered or threatened;
- ▶ taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in State CEQA Guidelines Section 15380;
- ▶ species identified by CDFW as species of special concern;
- ▶ species listed as Fully Protected under the California Fish and Game Code;
- ▶ species afforded protection under local or regional planning documents; and
- ▶ taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
  - CRPR 1A - Plants presumed to be extinct in California;
  - CRPR 1B - Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2A - Plants presumed to be extinct in California, but more common elsewhere;
  - CRPR 2B - Plants that are rare, threatened, or endangered in California, but more common elsewhere;
  - CRPR 3 - Plants about which more information is needed (a review list); and
  - CRPR 4 - Plants of limited distribution (a watch list).

All plants with a CRPR are considered "special plants" by CDFW. The term "special plants" is a broad term used by CDFW to refer to all of the plant taxa inventoried in CDFW's CNDDDB, regardless of their legal or protection status. Plants ranked as CRPR 1A, 1B, 2A, and 2B may qualify as endangered, rare, or threatened species within the definition of State CEQA Guidelines Section 15380. CDFW recommends that potential impacts to CRPR 1 and 2 species be evaluated in CEQA documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to State CEQA Guidelines Section 15380. However, these species may be evaluated by the lead agency on a case-by-case basis.

The term "California species of special concern" is applied by CDFW to animals not listed under the federal Endangered Species Act (ESA) or California Endangered Species Act, but that are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and have known threats to their persistence.

A list of special-status species that could potentially occur on the project site or immediate vicinity (provided suitable habitat conditions were potentially present) was developed based on the record searches described above, in the "Introduction and Methods" section.

### **SPECIAL-STATUS PLANTS**

Although the project site is disturbed, it is situated within an ecologically diverse region that supports a number of rare and endemic plant species. The records search generated records for 14 special-status plant species, but none of these species have potential to occur on the project site because they are restricted to particular soil types (e.g., saline, alkaline, or serpentine) or other habitat types (e.g., vernal pools, marshes, meadows and seeps, tidal mudflats, alkali flats and playas, chenopod scrub, or woodlands) that are not present. In addition, the generally disturbed condition of the site makes it largely unsuitable for special-status plant species. Table 3.4-1 provides information about the listing status, required habitat, blooming period, and potential for occurrence for these species. No special-status plants or habitats for the special-status plants were observed at the project site during the April 2014 reconnaissance-level field survey.

### **SPECIAL-STATUS WILDLIFE**

As noted previously, the project site is situated in an ecologically diverse region that supports a diverse fauna, including a large number of special-status wildlife species. Based on the record searches and knowledge of the region, 17 special-status wildlife species were considered to have potential to occur in the project vicinity. Table 3.4-2 lists the wildlife species that have the potential to occur in the project vicinity, and describes their regulatory status, habitat requirements, and likelihood of occurrence at the site. Most of these species were eliminated from further evaluation in this document because they are restricted to particular habitat types (e.g., chaparral, coastal sage scrub, vernal pools, streams and rivers, salt marsh, riparian woodland and forest) that are not present on the project site. No special-status animals were observed at the project site during the April 2014 reconnaissance-level field survey; four species with marginally suitable habitat on-site are discussed further below.

**Table 3.4-1  
Special-Status Plants with Potential to Occur in the Vicinity of the Project Site**

Species	Listing Status			Habitat and Blooming Period	Potential for Occurrence
	Federal <sup>a</sup>	State <sup>b</sup>	CRPR <sup>c</sup>		
Ferris' milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	–	–	1B	Meadows and seeps, valley and foothill grasslands (subalkaline flats); from 7 to 246 feet in elevation. Blooms April to May.	Not likely to occur; no suitable habitat is present.
Recurved larkspur <i>Delphinium recurvatum</i>	–	–	1B	Alkaline soils: cismontane woodland, valley and foothill grassland; from 10 to 2,592 feet in elevation. Blooms March to June.	Not likely to occur; no suitable habitat is present.
Parry's rough tarplant <i>Centromadia parryi</i> ssp. <i>rudis</i>	–	–	4	Alkaline soils, vernal mesic: seeps, sometimes roadsides, valley and foothill grassland, vernal pools; from 0 to 328 feet in elevation. Blooms May to October.	Not likely to occur; no suitable habitat is present.
Hogwallow starfish <i>Hesperervax caulescens</i>	–	–	4	Mesic, clay soils: valley and foothill grassland, shallow vernal pools; from 0 to 1,657 feet in elevation. Blooms March to June.	Not likely to occur; no suitable habitat is present.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i>	–	–	1B	Marshes and swamps (freshwater), often in riprap on sides of levees; from 0 to 394 feet in elevation. Blooms June to September.	Not likely to occur; suitable habitat is present within freshwater marsh along irrigation ditches within the project site, but species would have been detectable during the field survey.
Colusa layia <i>Layia septentrionalis</i>	–	–	1B	Sandy, serpentinite: chaparral, cismontane woodland, valley and foothill grassland; from 328 to 3,593 feet in elevation. Blooms April to May.	Not likely to occur; no suitable habitat is present and the project site is outside elevation range for species.
Sylvan microseris <i>Microseris sylvatica</i>	–	–	4	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland (serpentinite); from 148 to 4,921 feet in elevation. Blooms March to June.	Not likely to occur; no suitable habitat is present.
Veiny monardella <i>Monardella venosa</i>	–	–	1B	Heavy clay soils in valley and foothill grassland; from 197 to 1,345 feet in elevation. Blooms May to July.	Not likely to occur; the known CNDDB occurrence was recorded in 1854 in the floodplain of the Feather River near Marysville. It is likely extirpated and the nearest known extant occurrences are in Butte County in relatively undisturbed habitat.
Cotula navarretia <i>Navarretia cotulifolia</i>	–	–	4	Adobe, vernal mesic: chaparral, cismontane woodland, valley and foothill grassland; from 13 to 6,004 feet in elevation. Blooms May to June.	Not likely to occur; no suitable habitat is present.

**Table 3.4-1  
Special-Status Plants with Potential to Occur in the Vicinity of the Project Site**

Species	Listing Status			Habitat and Blooming Period	Potential for Occurrence
	Federal <sup>a</sup>	State <sup>b</sup>	CRPR <sup>c</sup>		
Baker's navarretia <i>Navarretia leucocephala</i> ssp. <i>bakeri</i>	–	–	1B	Vernally mesic cismontane woodland, lower montane coniferous forest, valley and foothill grassland; meadows and seeps, vernal pools; from 16 to 5,709 feet in elevation. Blooms April to July.	Not likely to occur; no suitable habitat is present.
Adobe navarretia <i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	–	–	4	Clay, sometimes serpentinite soils: vernal mesic valley and foothill grassland, occasionally vernal pools; from 328 to 3,281 feet in elevation. Blooms April to June.	Not likely to occur; no suitable habitat is present and the project site is outside elevation range for species.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E	E	1B	Shallow, well-drained, medium-textured soils in cismontane woodland and valley and foothill grassland; predominantly on northern slopes of mima mounds but also near vernal pools; from 49 to 492 feet in elevation. Blooms March and April.	Not likely to occur; suitable micro-habitat is not present in the project site. The known CNDDDB occurrence was recorded in 1847 from the floodplain of the lower Feather River. It has been extirpated and no subsequent occurrences of Hartweg's golden sunburst have been documented in Sutter or Yuba Counties. Species' current known distribution is limited to Madera, Fresno, and Stanislaus Counties.
San Francisco champion <i>Silene verecunda</i> ssp. <i>verecunda</i>	–	–	1B	Sandy soils: coastal bluff scrub, chaparral, coastal prairie, coastal scrub, valley and foothill grassland; from 98 to 2,116 feet in elevation. Blooms March to August.	Not likely to occur; no suitable habitat is present.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	–	–	2B	Alkaline soils: meadows and seeps, marshes and swamps, riparian forest, vernal pools; from 16 to 1,427 feet in elevation. Blooms May to September.	Not likely to occur; no suitable habitat is present.

Notes:

<sup>a</sup> U.S. Fish and Wildlife Service—Federal Listing Categories:

E = Endangered

– = No status

<sup>b</sup> California Department of Fish and Wildlife—State Listing Categories:

E = Endangered

– = No status

<sup>c</sup> CDFW California Rare Plant Ranks (CRPR):

1B = Plants rare, threatened, or endangered in California and elsewhere

2B = Plants rare, threatened, or endangered in California, but more common elsewhere

4 = Uncommon in California

Sources: CNDDDB 2014, CNPS 2014, USFWS 2014, Compiled by AECOM in 2014

**Table 3.4-2  
Special-Status Wildlife with Potential to Occur in the Vicinity of the Project Site**

Species	Listing Status <sup>1</sup>		Habitat	Potential for Occurrence <sup>2</sup>
	Federal	State		
<b>Invertebrates</b>				
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T	–	Vernal pools in valley and foothill grasslands.	Not likely to occur; no suitable habitat is present.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T	–	Elderberry shrubs below 3,000 feet in elevation, typically in riparian habitats.	Not likely to occur; no elderberry shrubs observed during field survey.
Vernal pool tadpole shrimp <i>Lepidurus packardi</i>	E	–	Vernal pools in valley and foothill grasslands.	Not likely to occur; no suitable habitat is present.
<b>Reptiles</b>				
California tiger salamander <i>Ambystoma californiense</i>	E	T, SC	Aquatic breeding habitat consists of seasonal wetlands, and occasionally farm ponds, or slow-moving creeks; juveniles and adults live mainly in rodent burrows in grasslands and oak woodlands.	Not likely to occur; no suitable habitat is present.
Western pond turtle <i>Emys marmorata</i>	–	SC	Permanent freshwater habitats with vegetation and basking sites.	Not likely to occur; no suitable habitat is present.
California red-legged frog <i>Rana draytonii</i>	T	SC	Quiet, permanent pools of streams, marshes, and occasionally ponds.	Not likely to occur; no suitable habitat is present.
Giant garter snake <i>Thamnophis gigas</i>	T	T	Vegetated freshwater habitats with slow or still water.	Not likely to occur; drainage ditches within the project site are dry the majority of the year.
<b>Birds</b>				
Tricolored blackbird <i>Agelaius tricolor</i>	–	SC	Nests colonially in dense stands of cattails and bulrushes, or in upland sites with blackberries, nettles, thistles, and in some crops.	Not likely to occur; marginal wetland habitat present in drainage ditches within the project site is too small and fragmented.
Burrowing owl <i>Athene cunicularia</i>	–	SC	Nest in grasslands and agricultural fields with low-growing vegetation and the presence of small rodent burrows.	Not likely to occur; no small rodent burrows or rodent activity observed during the field survey. No CNDDDB records for this species within 6 miles of the project site.
Golden eagle <i>Aquila chrysaetos</i>	–	FP	Forages in large open areas of foothill shrub and grassland habitats and occasionally croplands.	Not likely to occur; no suitable habitat is present.
Swainson's hawk <i>Buteo swainsoni</i>	–	T	Nests on edges of riparian forest and in scattered trees; forages in grasslands and agricultural fields.	Could occur; marginally suitable nesting habitat.

**Table 3.4-2  
Special-Status Wildlife with Potential to Occur in the Vicinity of the Project Site**

Species	Listing Status <sup>1</sup>		Habitat	Potential for Occurrence <sup>2</sup>
	Federal	State		
Western billed cuckoo <i>Coccyzus americanus occidentalis</i>	C	E	Large areas of riparian habitat, particularly cottonwood-willow riparian woodlands.	Not likely to occur; no suitable habitat is present.
White-tailed kite <i>Elanus leucurus</i>	–	FP	Forage in grasslands and agricultural fields; nest in isolated trees or small woodland patches.	Could occur; marginally suitable nesting habitat.
Peregrine Falcon <i>Falco peregrinus</i>	–	FP	Nest in cliffs, steep banks, ledges, or tall building; near water.	Not likely to occur; no suitable habitat is present.
Greater sandhill crane <i>Grus canadensis tabida</i>	–	T, FP	Winter in the Central Valley in croplands (especially grain and irrigated crops) and wetlands.	Not likely to occur; no suitable habitat is present.
Bank swallow <i>Riparia riparia</i>	–	T	Colonial nester, nests primarily in vertical banks with fine-textured, sandy soil near rivers, streams, and lakes.	Not likely to occur; no suitable habitat is present.
<b>Mammals</b>				
Pallid bat <i>Antrozous pallidus</i>	–	SC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Not likely to occur; no suitable habitat is present. The known CNDDDB occurrence was located more than 8 miles from the project site.
<p><b>Federal</b>  E Listed as endangered under the federal Endangered Species Act  T Listed as threatened under the federal Endangered Species Act  C Candidate for listing under the federal Endangered Species Act  – No designation</p> <p><b>State</b>  E Listed as endangered under the California Endangered Species Act  T Listed as threatened under the California Endangered Species Act  SC California Species of Special Concern  FP Fully protected species – may not be taken or possessed without a permit from the Fish and Game Commission  – No designation</p> <p>Sources: CNDDDB 2014, USFWS 2014; Data compiled by AECOM in 2014</p>				

### Giant Garter Snake

The giant garter snake (GGS) is an aquatic snake that inhabits marshes, sloughs, ponds, and low-gradient streams. Rice fields and associated agricultural irrigation and drainage canals also serve an important role as aquatic habitat for GGS. Essential habitat components for GGS consist of (1) adequate water during the snake's active period (i.e., early spring through mid-fall) to provide a prey base and cover; (2) emergent, herbaceous wetland vegetation, such as cattails and bulrushes, for escape cover and foraging habitat; (3) upland habitat for basking, cover, and retreat sites; and (4) higher elevation uplands for cover and refuge from flood waters (USFWS 1997).

GGs have been recorded less than 1 mile northeast of the project site in the Wadsworth Canal (CNDDDB 2014). However, the project site is unlikely to support GGS because it does not provide the essential habitat components required by this species. The unnamed drainage ditch at the toe of the levee is dry during the snake's active period and the fragmented, patchy vegetation in the ditch does not offer suitable foraging habitat or escape cover. In addition, the site does not provide suitable upland GGS habitat for basking, or rodent burrows or other potential winter refugia. GGS prefer open upland grassland near aquatic habitat for basking and refugia, but the project site features a windrow of Eucalyptus trees and a walnut orchard adjacent to the irrigation ditch that does not offer the preferred open conditions. Based on the absence of suitable aquatic and upland habitat for GGS, this species is considered unlikely to occur at the project site.

### **Tricolored Blackbird**

The tricolored blackbird is a highly colonial species endemic to California and southern Oregon, and is a year-round resident of California. The tricolored blackbird nests in stands of cattails, tules, blackberries, or other dense herbaceous vegetation, and can also nest in silage and grain fields. The nearest CNDDDB occurrence of a breeding colony was recorded in 1974, 1987, and again in 1992 in Gilsizer Slough, on the east side of Sutter Bypass, approximately 10 miles south of the project site. The colony occupied approximately 60 acres of tule marsh.

Tricolored blackbirds select breeding colony sites that offer nesting locations that are protected from terrestrial predators by water or thorny or spiny vegetation, and that have suitable foraging areas (e.g., feedlots or irrigated pasture) within a few kilometers of the colony (Beedy and Hamilton 1999). This species typically does not nest in small, fragmented patches of wetland vegetation (Beedy, pers. comm., 2014). The patchy and fragmented habitat in the drainage ditch at the project site does not offer suitable nesting habitat for this species, and tricolored blackbird is considered unlikely to occur at the project site.

### **Swainson's Hawk**

Swainson's hawks begin to arrive in the Central Valley from South America in March to breed and raise their young. They typically nest in large, mature trees such as valley oak, cottonwood, willow, and walnut. Alfalfa, row crops, grain fields, and irrigated pastures are the Swainson's hawk's preferred foraging habitats, where they take advantage of the opportunities that harvesting and irrigating practices provide for easy capture of small rodents. They do not usually forage in vineyards, orchards, or flooded rice fields.

The mature trees on the project site provide marginally suitable nesting habitat for this species. The nearest known Swainson's hawk nesting occurrence was recorded on July 2, 2004 and was approximately 120 feet directly north of the project site on the north side of Highway 20. The annual grasslands and disturbed habitat on the project site also provide marginal foraging habitat for Swainson's hawks.

### **White-tailed Kite**

The white-tailed kite species nests in rolling foothills and valley margins with scattered oaks, riparian woodlands, or marshes next to deciduous woodland, and forages in open grasslands, meadows, or marshes. White-tailed kites are known to forage for small rodents and insects in agricultural areas, especially alfalfa fields. Nests are generally built in available trees near hunting grounds.

The mature trees on the project site provide marginally suitable nesting habitat for this species; the annual grasslands and disturbed habitat on the project site also offers marginal foraging habitat for white-tailed kite.

## CRITICAL HABITAT

Critical habitat is a geographic area containing features determined by USFWS to be essential to the conservation of a species listed as threatened or endangered under ESA. Critical habitat does not have to be occupied by that species at the time it is designated, but it may be considered necessary for the recovery of the species. The project site is not located within an area designated by USFWS as critical habitat.

### 3.4.2 DISCUSSION

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

*Less than Significant with Mitigation Incorporated.* Construction of the proposed project could have potential adverse effects on two special-status species, Swainson's hawk and white-tailed kite, and could also have impacts on other nesting migratory birds. However, with implementation of the mitigation measures identified below, these potential impacts would be reduced to a less-than-significant level.

Operational activities associated with the proposed project would include accessing the site as needed to store, and occasionally and infrequently use flood fighting equipment and supplies. These actions are not anticipated to result in indirect impacts on special-status species or other wildlife because the nature and intensity of these activities would not differ substantially from existing activities at the project site and the adjacent SMY.

#### **Swainson's Hawk, White-tailed Kite, and Other Nesting Migratory Birds**

The mature trees on-site provide marginally suitable nesting habitat for Swainson's hawk, white-tailed kite, and other raptors, and migratory birds. The young orchard trees on-site also provide marginal nesting habitat for smaller birds. Project construction would involve removal of the mature trees on the northern boundary of the project site and the young walnut orchard, resulting in the loss of potential nesting habitat; the eucalyptus windrow on the southern boundary would remain. These construction activities have the potential to cause direct loss of active nests and/or disturbance of nesting pairs, resulting in nest abandonment and mortality of chicks and eggs. Potential nest trees for Swainson's hawk, white-tailed kite, and common raptors are largely separated from the project site by existing development, but there is still some potential to disturb nesting pairs.

The loss of an active nest or disturbance resulting in mortality of chicks and eggs of Swainson's hawk or white-tailed kite would be considered a significant impact. The probability of indirect disturbance to nesting activities of these species is low because the site is already subject to ongoing disturbance by SMY traffic and activities, and from nearby agricultural operations, and traffic on Highway 20. However, avoidance and minimization measures to prevent direct or indirect disturbance to special-status raptors and other nesting birds are provided below. No mitigation is proposed for the loss of nesting trees on the project, because the quality of this nesting habitat is poor based on the size, location, and nature of the tree species.

In addition to removal of the orchard habitat, implementation of the proposed project would remove nonnative annual grasslands that could serve as marginal foraging habitat for the two special-status raptors, common raptors, and other birds. This loss is considered less than significant because the fragmented and disturbed non-native grassland that would be affected at the project site provides only poor quality foraging habitat. In addition,

suitable nesting habitat and abundant foraging habitat for Swainson's hawks and other raptors and migratory birds is available on the large tracts of agricultural lands and open grasslands in close proximity to the project site.

**Mitigation Measure BIO-1: Conduct Preconstruction Surveys and Implement Avoidance and Minimization Measures to Protect Nesting Swainson's Hawks**

- ▶ If tree removal and other construction activities occur during the Swainson's nesting season (March 1 through September 15), focused surveys for Swainson's hawk nests will be conducted by a qualified wildlife biologist within 14 days before the start of construction activities. Surveys will be conducted in potentially suitable nest trees occurring within the project site and within 500 feet of the boundaries of the site. If an active Swainson's hawk nest is detected during the preconstruction surveys, California Department of Water Resources or its designated representative will notify California Department of Fish and Wildlife, and will establish a protective buffer a minimum of 500 feet from the nest. No construction activities with potential to disturb nesting Swainson's hawks will occur within the 500-foot protective buffer until the nest is no longer active or until the qualified biologist, in consultation with California Department of Fish and Wildlife, determines that the proposed construction activities pose no risk of nest abandonment or other disruptions to nesting activities.

**Mitigation Measure BIO-2: Conduct Preconstruction Surveys and Implement Avoidance and Minimization Measures to Protect Nesting White-tailed Kite and Other Migratory Birds**

- ▶ If tree removal and other construction activities occur during the nesting season (February 1 through August 15), a qualified biologist will conduct focused surveys for nesting white-tailed kites and other raptors and for other migratory birds within 14 days before the start of construction activities. Surveys will be conducted within the project site and 250 feet beyond the boundaries of the site. If an active nest is detected during the preconstruction surveys, California Department of Water Resources or its designated representative will establish a protective buffer of 100 feet from the active nest. No construction activities with potential to disturb nesting raptors or other migratory birds will occur within the 100-foot protective buffer until the nest is no longer active or until the qualified biologist determines that the proposed construction activities pose no risk of nest abandonment or other disruptions to nesting activities.

**Mitigation Measure BIO-3: Implement a Worker Environmental Awareness Program.**

A qualified biologist will develop and administer a worker environmental awareness training program to all construction personnel before construction activities begin. The training will include instruction regarding species identification, natural history, habitat, and protection needs of Swainson's hawk, white-tailed kite, nesting raptors, and other migratory birds.

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

*No Impact.* No riparian habitat occurs on the project site. The project as proposed would not impact the unnamed drainage ditch on the southern boundary; therefore, implementation of the proposed project would not have any adverse effects on sensitive natural communities. No impact would occur.

**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?**

*No Impact.* The unnamed drainage ditch on the southern boundary of the project site is potentially a federally jurisdictional waters of the U.S. and supports patches of wetland indicator species which are potentially federally jurisdictional wetlands. The proposed project would not result in direct impacts on the drainage ditch or the wetland vegetation in the ditch. Indirect impacts would also be avoided; construction would not result in substantial changes to the site's drainage patterns to the ditch or indirect impacts on the wetland vegetation in the ditch because the site is currently nearly level and would remain so after construction. In addition, the aggregate base that would be placed on-site would maintain a permeable surface; therefore, no decreased or increased flows to the drainage ditch are anticipated. No direct or indirect impacts on the drainage ditch or the wetland vegetation in the ditch would occur as a result of the proposed project.

**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?**

*No Impact.* Wildlife corridors are features that provide connections between habitat patches that would otherwise be isolated and unusable. Based on information from the biological resources investigation, it was determined that there are no wildlife corridors or nursery sites present within the project site. Project implementation would not interfere substantially with the movement of any native resident or migratory wildlife species because the project site does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. Therefore, construction of the proposed project would not interfere with the movement of wildlife or impede the use of a wildlife nursery site. No impact would occur.

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

*No Impact.* No trees or other biological resources protected under local policies or ordinances occur on the project site. The project area is zoned for agriculture in the Sutter County General Plan (Sutter County 2011) and does not contain natural features or biological resources identified for preservation or habitat protection. Resources addressed in the "Environmental Resources" chapter of the General Plan would not be adversely affected by implementing the proposed project because all impacts would be contained within previously disturbed or developed lands, and there would be no conflict with General Plan or County ordinances. Mitigation measures are presented above to minimize and avoid impacts on the special-status wildlife potentially occurring at the project site. No impact would occur.

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

*No Impact.* The project site is within the boundaries of the proposed Yuba-Sutter Regional Conservation Plan, a federal Habitat Conservation Plan (HCP) and a state Natural Community Conservation Plan (NCCP). However, this plan has not yet been adopted (Yuba-Sutter Regional Conservation Plan 2014). Therefore, the proposed project would not conflict with provisions in an HCP/NCCP, and no impact would occur.

### 3.5 CULTURAL RESOURCES

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

#### 3.5.1 ENVIRONMENTAL SETTING

##### PREHISTORIC CONTEXT

Archaeologically, the project area is usually included in the broad general taxonomy of central California as developed by Bennyhoff and Fredrickson (1969). Little archaeological investigation has been conducted in the Central Valley in general, and the northern Sacramento Valley is no exception (Rosenthal et al. 2007). Work by early researchers in the first half of the 20th century noted large mound sites approximately every 2–3 miles along rivers, but most were destroyed by agricultural development, levee construction, and river erosion; work included some excavation as well (Moratto 1984:193; Rosenthal et al. 2007; Schenk and Dawson 1929). Work has remained limited, although some larger surveys and limited excavation operations have been performed in the area, primarily for federal compliance work for both Section 106 and Section 110 of the National Historic Preservation Act and water projects (Moratto 1984:194; White 2003).

The tripartite chronological scheme for central California includes three basic time periods: the Paleo-Indian, 11,550–8550 calibrated years (cal) B.C.; the Lower Archaic, 8550–5550 cal B.C., Middle Archaic, 5550–550 cal B.C., and Upper Archaic, 550 to cal A.D. 1100; and the Emergent, cal A.D. 1100 to historic era. Few sites in central California date to the Paleo-Indian Period and no sites near the proposed project date to that time, although an isolated, possible fluted point (an artifact indicative of the Paleo-Indian Period) has been found in Tehama County. Lower Archaic remains are likewise scant in the archaeological record for central California, although an isolated crescent (indicative of the time period) was found on an ancient alluvial fan in Glenn County (Rosenthal et al. 2007).

Middle Archaic sites are more common than sites dating to earlier times. In the northern Sacramento Valley they can be found both in foothills, mostly in Shasta County, and on valley floors, with many in Colusa County. Much environmental change occurred at the beginning of the Middle Archaic, with warmer and drier conditions becoming prevalent throughout most of central California; landforms stabilized after initial deposition and are often encountered as buried soils in alluvial contexts. The archaeological record indicates that during this period,

settlements on valley floors became increasingly sedentary along the corridors of the Sacramento and San Joaquin Rivers while subsistence practices became logistically organized. Regional variability and the extent of these practices are still poorly understood. The artifact assemblages from this period are refined and specialized, as are features; trade items are abundant; and plant and animal remains indicate year-round occupation (Moratto 1984:201–207; Rosenthal et al. 2007).

Sites dating to the Upper Archaic increase in number compared to previous periods as climate shifts to a wetter, more cool and stable environment. Across central California, cultures are more diverse and technologies become specialized. Acorn becomes the staple crop for much of the state, and large mounded villages appear in the Sacramento–San Joaquin Delta. Few Upper Archaic sites in the northern Sacramento Valley have been investigated. Most of the investigated sites appear to be related or at least similar to sites located in Shasta County; they tend to lack developed midden, technology appears more conservative, and river resources are few or completely absent (Rosenthal et al. 2007). Researchers have conjectured that there should be abundant village sites along the northern Sacramento River, but these have not been found (Rosenthal et al. 2007).

The best represented and understood of the periods in central California, the Emergent, saw many social and technological changes. In the northern Sacramento Valley, the period is associated with the Sweetwater and Shasta Complexes. The bow and arrow was introduced during this period, and social complexity increased as evidenced by increased burial variation, and artifacts. In the Sacramento Valley, a large town developed along the Sacramento River where fish weirs were constructed. Fish became an important resource in the Sacramento Valley as fishing technology became more elaborate and the amount of fishing increased. Other important resources in the northern Sacramento Valley included acorn, pine nut, and manzanita. A monetized system of exchange developed. In Tehama County and elsewhere, perishable artifacts such as basketry and netting have been found preserved at some sites (Moratto 1984:211–213; Rosenthal et al. 2007).

## **HISTORIC CONTEXT**

Sutter County was one of California’s original 27 counties and was named for John Sutter. The county was incorporated in 1850 and its borders were finalized in 1856 (Sutter County 2014a). The first permanent settlement in the county, Hock Farm, was established in 1841 by Sutter. The farm, located approximately 8 miles south of Yuba City, served as Sutter’s principal stock ranch; in 1850, it became Sutter’s permanent home. He planted orchards, gardens, and vineyards at Hock Farm.

With the decline of the Gold Rush, miners turned to farming, which proved to be more financially lucrative. The county, however, suffered a loss of fertile agricultural lands during the 1870s and 1880s because of flooding caused by the hydraulic mining debris that built up in the Sacramento River, which runs through the county. When hydraulic mining stopped, agricultural development in Sutter County developed rapidly. In 1868, Proper Wheat crops were developed, which created a highly profitable wheat exporting industry in the county (PBS&J 2008:4.6-4). In 1875, William Thompson introduced the seedless grape to Sutter County and to California. The grapes were highly successful and were used to produce raisin, wine, and table grapes (Hoover et al. 1990:495). In the 1880s, the Phillips Cling Peach was developed in the county and spurred a large canning industry (PBS&J 2008:4.6-4).

Today, Sutter County has more than 95,000 citizens and the importance of agriculture continues. The county is known for its rice, walnuts, peaches, tomatoes, and prunes (Sutter County 2014b). The agricultural industry is an integral part of the county’s economic base; the county’s other industries, including banking, transportation, and

labor, are tied directly and indirectly to the agricultural industry (Sutter County Agricultural Commissioner 2013:1).

### **3.5.2 REGULATORY SETTING**

CEQA provides a broad definition of what constitutes a cultural or historical resource. Cultural resources can include traces of prehistoric habitation and activities, historic-era sites and materials, and places used for traditional Native American observances or places with special cultural significance. In general, it is required to treat any trace of human activity more than 50 years in age as a potential cultural resource.

CEQA states that if a project would have significant impacts on important cultural resources, then alternative plans or mitigation measures must be considered. However, only significant cultural resources (termed “historical resources”) need to be addressed. The State CEQA Guidelines define a historical resource as a resource listed or eligible for listing in the California Register of Historical Resources (CRHR) (Public Resources Code Section 5024.1). A resource may be eligible for inclusion in the CRHR if it:

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

The State CEQA Guidelines also require consideration of unique archaeological resources (Section 15064.5). As used in the Public Resources Code (Section 21083.2), the term “unique archaeological resource” means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type, or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition to meeting one or more of the above criteria, resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (Office of Historic Preservation 1999:67).

### 3.5.3 METHODS

Efforts to locate cultural resources within the project area consisted of a records search review, a field survey of the project site, and research in AECOM's cultural library.

#### RECORDS SEARCH RESULTS AND FINDINGS

DWR archaeologist Wendy Pierce conducted a records search at the Northeast Information Center of the California Historical Resources Information System at California State University, Chico. The search did not identify any cultural resources within 0.25 mile of the project area. One historic-era canal (the Wadsworth Canal, P-51-000140) was recorded within 0.25 mile of the project area. The records search also identified three previous cultural resources studies in and within 0.25 mile of the project area.

#### FIELD SURVEY

DWR archaeologists conducted a pedestrian survey of the project site on July 9, 2013. The project site was surveyed and visibility was excellent because most areas of the project site had been plowed recently. There was some subsurface visibility in a trench near one of the built-environment resources. Two built-environment resources (residences) were inventoried and assessed as part of the survey (DWR 2013).

### 3.5.4 DISCUSSION

**a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

*No Impact.* Two residences are located on the project site. They do not appear to meet the criteria for the National Register of Historic Places or the CRHR because they lack integrity as a result of extensive modifications and remodeling (DWR 2013:1). Because the buildings lack significance, they are not considered historical resources for the purposes of CEQA. In addition, the residences would remain. Therefore, no impact would occur.

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

*Less than Significant with Mitigation Incorporated.* Archival and field research revealed no archaeological resources within the project site, and it is extremely unlikely that buried archaeological resources are present. Nevertheless, it is possible that previously undiscovered or unknown cultural remains exist at the site and could be encountered or uncovered during project construction. Therefore, this impact would be potentially significant. However, with the implementation of Mitigation Measure Cul-1, this potential impact would be reduced to a less-than-significant level in the unlikely event that archaeological resources are discovered during project-related construction activities.

**Mitigation Measure CUL-1: Halt Ground-Disturbing Construction Activities if Cultural Materials are Discovered.**

- ▶ If cultural materials (e.g., unusual amounts of shell, animal bone, flaked stone, bottle glass, ceramics, structure/building remains) are encountered during project construction, ground disturbances in the immediate vicinity of the find will be halted immediately and a qualified professional archaeologist will be notified regarding the discovery. The archaeologist will determine whether the resource is

potentially significant as per the California Register of Historical Resources and will identify appropriate management steps needed to protect and secure identified resources.

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

*No Impact.* Based on a review of geologic mapping prepared by Saucedo and Wagner (1992), the surficial deposits at the project site consist of Holocene-age (i.e., 11,700 years Before Present [B.P.] to Present Day) alluvial basin deposits. These are likely underlain at depth by alluvial fan deposits of the Modesto Formation, which range in age from 12,000 to 73,000 years B.P. (Helley and Harwood 1985). Based on the large number of vertebrate fossils recovered from the Modesto Formation, it is considered to be a paleontologically sensitive rock formation (Society of Vertebrate Paleontology 1995). However, there are no plans to conduct excavation or grading activities more than 5 feet below the ground surface. Therefore, all project-related earthmoving activities would take place in the Holocene-age basin deposits. By definition, to be considered a fossil, a resource must be more than 11,700 years old. Holocene deposits contain only the remains of extant, modern taxa (if any resources are present), which are not considered “unique” paleontological resources. Therefore, this formation is not considered to be paleontologically sensitive, and project-related earthmoving activities would have no impact on unique paleontological resources.

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

*Less than Significant with Mitigation Incorporated.* No evidence of human remains at the project site was found in documentary research, and it is extremely unlikely that buried human remains are present. Furthermore, project activities would not require excavation that would have the potential to unearth buried human remains. Nevertheless, it is possible that presently unknown prehistoric burials exist and could be uncovered during project construction. Therefore, this impact would be potentially significant. However, with the implementation of Mitigation Measure Cul-2, this potential impact would be reduced to a less-than-significant level in the unlikely event that archaeological resources are discovered during project-related construction activities.

**Mitigation Measure CUL-2: Halt Construction Activities if Any Human Remains are Discovered.**

- ▶ The procedures for the treatment of discovered human remains are contained in Sections 7050.5 and 7052 of the California Health and Safety Code and Section 5097 of the California Public Resources Code. In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities, such activities that may affect the remains will be halted and the California Department of Water Resources or its designated representative will be notified. The department will immediately notify the county coroner and a qualified professional archaeologist. If the coroner determines that the remains are those of a Native American, the coroner must contact the Native American Heritage Commission by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]).
- ▶ The responsibilities of the California Department of Water Resources for acting upon notification of a discovery of Native American human remains are identified in detail in Section 5097.9 of the California Public Resources Code. The department or its appointed representative and the professional archaeologist will consult with a Most Likely Descendant determined by the Native American Heritage Commission regarding the removal or preservation and avoidance of the remains and will determine whether additional burials could be present in the vicinity.

### 3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
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 California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.6.1 ENVIRONMENTAL SETTING

The project site is located in the Sacramento Valley, approximately 2 miles southeast of the Sutter Buttes. The Sacramento Valley is a forearc basin that is filled with thousands of feet of sediments eroded from the Sierra Nevada to the east and the Coast Ranges to the west. These sediments were carried by wind and water and eventually deposited on the valley floor over millennia. The northern portion of the Sacramento Valley was subject to intermittent periods of volcanic activity originating from the Sutter Buttes during the late Pliocene and early Pleistocene (approximately 3.6-2.2 million years B.P.). Saucedo and Wagner (1992) indicate that surficial deposits at the project site consist of Holocene-age (i.e., 11,700 years B.P. to Present Day) alluvial basin deposits. These are likely underlain at depth by alluvial fan deposits of the Modesto Formation, which ranges in age from 12,000 to 73,000 years B.P. (Helley and Harwood 1985).

The Sacramento Valley has generally not been seismically active. Faults with evidence of activity during the last 11,700 years (i.e., “active” faults) are generally located in the Coast Ranges. The few notable exceptions consist of the Dunnigan Hills Fault, approximately 22 miles southwest of the project site, and the Cleveland Hills Fault, approximately 30 miles northeast of the project site near Lake Oroville (Jennings 1994).

The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristics of the source. Ground motions from seismic activity can be estimated by probabilistic method at specified hazard levels and by site-specific design calculations using a computer model. The Probabilistic Seismic Hazards Assessment Model available from the California Geological Survey (CGS) estimates a minimum horizontal acceleration of 0.194 *g* (where *g* is the percentage of gravity) at the project site with a 10% probability of earthquake occurrence in a 50-year timeframe (also known as the “Design Basis Earthquake” [DBE]) for use in earthquake-resistant design (CGS 2008). This calculation indicates that a relatively low level of seismic shaking would be expected at the project site.

The project site is nearly flat. Elevations range from approximately 47 to 48 feet above mean sea level, sloping slightly towards the southwest.

DWR performed a search of the U.S. Natural Resources Conservation Service (NRCS) soil survey database and based on those results, determined that the project site consists of Capay silty clay, siltstone substratum, 0 to 2 percent slopes (DWR 2013). This soil type is composed of silty clay and clay loam. It is moderately well drained, has very low permeability, and is highly expansive. The Capay silty clay is classified as hydrologic soil group D and, according to NRCS, is generally found in locations that are approximately 36-60 inches above the groundwater table.

### 3.6.2 DISCUSSION

- 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 California Geological Survey Special Publication 42.)**

*Less-than-Significant Impact.* The project site is located approximately 30 miles from the nearest Alquist-Priolo Earthquake Fault Zone (i.e., the Cleveland Hills Fault), and is not underlain by or adjacent to any known faults (CGS 2012, Jennings 1994). Because damage from surface fault rupture is generally limited to a linear zone a few yards wide, the potential for surface fault rupture to cause damage to structures at the project site is negligible. Therefore, this impact would be less than significant.

- ii) **Strong seismic ground shaking?**

*Less-than-Significant Impact.* The project site is not underlain by or adjacent to any known faults (Jennings 1994). Known faults classified as “active” by CGS, such as the Hunting Creek, Big Valley, and Bartlett Springs Faults, are generally located in the Coast Ranges approximately 35-45 miles to the west. In 1975, a magnitude 5.7 earthquake occurred along the Cleveland Hills Fault just south of Lake Oroville. However, research conducted by DWR indicates that the earthquake mostly likely resulted from reservoir-induced stress (DWR 1989). The

CGS Probabilistic Seismic Hazards Assessment Model projects a minimum horizontal acceleration of 0.194 *g* at the project site, which indicates that a low level of seismic ground shaking would be expected. Furthermore, all project-related structures and facilities are required by law to incorporate the design specifications contained in the California Building Standards Code (CBC). These include requirements for calculation of the site-specific seismic design parameters. Because the project site is unlikely to experience strong seismic ground shaking and DWR must comply with the provisions contained in the CBC that have been specifically designed to reduce seismic hazards, this impact would be less than significant.

**iii) Seismic-related ground failure, including liquefaction?**

*Less-than-Significant Impact.* Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. The loss of soil strength can result in bearing capacity insufficient to support foundation loads, increased lateral pressure on retaining or basement walls, and slope instability. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands, peats, uncompacted fill, and Holocene-age deposits are the most susceptible to liquefaction, while clay soils deposited in freshwater environments and sediments deposited prior to the Holocene period are generally stable under the influence of seismic ground shaking.

Although the project site is underlain by younger, Holocene-age sediments, these sediments consist of silty clay and clay loam. The groundwater table is very shallow (i.e., from 3-6 feet below the ground surface); however, the known active faults are located a relatively long distance from the project site (approximately 35-45 miles to the west). Therefore, it is unlikely that liquefaction would pose a hazard to structures at the project site. Furthermore, as discussed in Chapter 2, “Project Description,” DWR plans to retain the existing metal building and install aggregate base to provide site access, parking, and storage for materials and equipment. There are no plans to construct foundations or structures intended for human habitation at the project site. Finally, all project-related structures and facilities are required by law to incorporate the design specifications contained in the CBC. These include requirements for calculation of the site-specific seismic design parameters and may include a site-specific liquefaction analysis if warranted (depending on the results of the seismic analysis). Because the conditions at the project site are unlikely to result in a liquefaction hazard and because DWR must comply with the provisions contained in the CBC that have been specifically designed to reduce seismic hazards, including liquefaction, this impact would be less than significant.

**iv) Landslides?**

*No Impact.* The project site is nearly flat, and is located far enough from the slopes of the Sutter Buttes such that any off-site landslides would not affect the project site. Thus, there would be no impact.

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

*Less-than-Significant Impact.* Project implementation would involve uprooting the existing walnut orchard and grading throughout the approximately 9.8-acre project site. Localized soil loss from wind and water erosion during grading could occur. The Capay silty clay at the project site is classified by NRCS as hydrologic soil group D (DWR 2013), which means it has a very high runoff potential. However, the project site is nearly flat and substantial soil erosion would not occur. Therefore, this impact would be less than significant.

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

*Less-than-Significant Impact.* Based on DWR's (2013) review of NRCS soil data, the project site consists of Capay silty clay, siltstone substratum, 0 to 2 percent slopes. This soil type is composed of silty clay and clay loam, is moderately well drained, and has very low permeability. The project site is located on level ground, and therefore landslides do not represent a hazard. Although a shallow groundwater table is present (DWR 2013), deep excavation for construction of foundations or utilities is not anticipated. As discussed in Chapter 2, "Project Description," DWR plans to retain the existing residences and metal building and install aggregate base to provide site access, parking, and storage of materials and equipment. There are no plans to construct foundations or structures intended for human habitation at the project site. Furthermore, all project-related structures and facilities are required by law to incorporate the design parameters contained in the CBC, which include specifications to reduce the effects from geologic hazards such as lateral spreading, subsidence, and liquefaction. Therefore, this would be less than significant.

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

*Less-than-Significant Impact.* The soil at the project site consists of Capay silty clay, which is highly expansive (DWR 2013). However, as discussed above, there are no plans to construct foundations or structures intended for human habitation at the project site. Furthermore, all project-related structures and facilities are required by law to incorporate the design parameters contained in the CBC, which include specifications to reduce the effects from geologic hazards such as soil expansion. Therefore, this impact would be less than significant.

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

*No Impact.* No restroom facilities would be developed at the project site. Therefore, project implementation would not require the use of septic tanks or alternative waste water disposal systems, and thus no impact would occur.

### 3.7 GREENHOUSE GAS EMISSIONS

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

#### 3.7.1 ENVIRONMENTAL SETTING

Certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. A portion of the solar radiation that enters Earth’s atmosphere is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected back toward space. Infrared radiation (i.e., thermal heat) is absorbed by GHGs; as a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the “greenhouse effect,” is responsible for maintaining a habitable climate on Earth.

Global warming is the name given to the increase in the average temperature of Earth’s near-surface air and oceans since the mid-20th century. Warming of the climate system is now considered to be unequivocal (IPCC 2007), with global surface temperature increasing approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase the global average temperature between 2°F and 11°F over the next 100 years.

The causes of this warming have been identified as both natural processes and the result of human actions. The Intergovernmental Panel on Climate Change (IPCC) concludes that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming from preindustrial times to 1950 and had a small cooling effect afterward. However, after 1950, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase.

Increases in GHG concentrations in Earth’s atmosphere are thought to be the main cause of human-induced climate change. GHGs naturally trap heat by impeding the exit of reflected solar radiation back into space. Some GHGs occur naturally and are necessary for keeping Earth’s surface habitable. However, increases in the concentrations of these gases in the atmosphere during the last 100 years have decreased the amount of solar radiation that is reflected back into space, intensifying the natural greenhouse effect and resulting in the increase of global average temperature.

The principal GHGs are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Each of the principal GHGs have a long atmospheric lifetime (1 year to several thousand years). In addition, the potential heat-trapping ability of each of these gases varies significantly from the others. For example, CH<sub>4</sub> is 23 times as potent as CO<sub>2</sub>, whereas SF<sub>6</sub> is 22,200 times

more potent than CO<sub>2</sub>. Conventionally, GHGs have been reported as CO<sub>2</sub> equivalents (CO<sub>2</sub>e). This approach takes into account the relative potency of non-CO<sub>2</sub> GHGs to convert their quantities to an equivalent amount of CO<sub>2</sub> so that all emissions can be reported as a single unit.

## **SIGNIFICANCE CRITERIA**

According to State CEQA Guidelines Section 15002(g), “a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” As stated in State CEQA Guidelines Section 15064(b), the significance of an activity may vary with the setting (e.g., air basin, applicable significance thresholds). Per Appendix G of the State CEQA Guidelines, the potential impacts on GHGs were evaluated for each of the criteria listed in the beginning of the section.

In May 2012, DWR adopted the DWR *Climate Action Plan Phase 1: Greenhouse Gas Emissions Reduction Plan* (GGERP), which details DWR’s efforts to reduce its 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 IS/negative declaration prepared for the GGERP in accordance with the State CEQA Guidelines. 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 (DWR 2012).

DWR developed construction emission thresholds to distinguish between typical construction projects that are analyzed and addressed under the GGERP and Extraordinary Construction Projects, whose construction emissions are not analyzed or addressed under the GGERP. A construction project is considered an Extraordinary Construction Project if either:

- ▶ the project emits more than 25,000 metric tons (MT) CO<sub>2</sub>e in total during the construction phase of the project or
- ▶ the project emits more than 12,500 MT CO<sub>2</sub>e in any single year of construction.

Emissions that exceed these thresholds represent a level of GHG emissions that by themselves could potentially adversely affect DWR’s ability to achieve its GHG emissions reduction goals. However, a project exceeding either of these thresholds would represent construction activities exceeding the typical level of construction activity performed by DWR and, therefore, exceeding the level of cumulative effects analysis done for the GGERP. Construction emissions that exceed either of these thresholds are, therefore, not analyzed or addressed under the GGERP, and projects that exceed these thresholds would not be eligible to rely on the analysis in the GGERP for project-specific cumulative impacts analyses under CEQA. For projects where construction emissions exceed this threshold, a project-specific impact analysis for construction GHG emissions following the State CEQA Guidelines and DWR policy may need to be conducted. Depending on the results of the impact analysis, mitigation might need to be implemented to address the project’s potential impacts.

DWR states that including thresholds in the GGERP does not constitute a determination that these are generally applicable as thresholds of significance for CEQA purposes. Each project is evaluated on a case-by-case basis using the most up-to-date calculation and analysis methods. However, because the proposed project involves essentially only construction-related emissions (there is no material change in operations-related emissions), it is

appropriate to use the GGERP thresholds to evaluate whether the project's GHG emissions contribution to the global impact of climate change would reach the level of a cumulatively considerable incremental contribution to a significant cumulative impact.

### **Analysis Methodology**

The proposed project's short-term construction emissions were modeled using the same models, methods, and assumptions as those used in Section 3.3, "Air Quality." CalEEMod Version 2013.2.2 can also estimate GHG emissions from construction activities associated with heavy-duty construction equipment, haul trucks, and construction worker vehicles. As discussed in Section 3.3, "Air Quality," following construction of the proposed project, operational activities would not increase beyond those of existing conditions. Therefore, similar to the air quality analysis, operational GHG emissions are not quantified as part of this analysis. Please refer to Section 3.3, "Air Quality" and Appendix A for more detailed information regarding air quality and GHG modeling.

### **3.7.2 DISCUSSION**

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

##### **Construction Emissions**

*Less-than-Significant Impact.* Construction-related GHG exhaust emissions would be generated by sources such as heavy-duty off-road equipment, trucks hauling materials to the project site, and worker commute vehicles. GHG emissions generated by construction activities would be primarily in the form of CO<sub>2</sub>. Although emissions of other GHGs, such as CH<sub>4</sub> and N<sub>2</sub>O, are important with respect to global climate change, emission levels of other GHGs are less dependent on the emissions-generating activities associated with the proposed project than are levels of CO<sub>2</sub>. However, CalEEMod quantifies construction and operational emissions in units for CO<sub>2</sub>e, which accounts for emissions of CH<sub>4</sub> and N<sub>2</sub>O.

As shown in Table 3.7-1, the proposed project's construction activities would generate a total of 54 metric tons of CO<sub>2</sub>e, which would be less than the DWR thresholds described above. Therefore, the proposed project would be accounted for in DWR's GGERP, which is the document that outlines how DWR will achieve emission reductions consistent with AB 32. Therefore, because the proposed project would generate emissions within the allowable limit, it would not generate GHG emissions, either directly or indirectly that might have a significant impact on the environment. This impact would be less than significant.

##### **Operational Emissions**

*Less-than-Significant Impact.* Following construction of the proposed project, long-term operational emissions would not increase beyond those of existing conditions. Therefore, the proposed project's operational emissions also would not generate emissions that either directly or indirectly that might have a significant impact on the environment. This impact would be less than significant.

<b>Table 3.7-1 Sutter Maintenance Yard Unmitigated GHG Construction Emissions</b>	
Construction Phase/Emission Source	Emissions (MT CO <sub>2</sub> e/year)
Removal of Orchard	2
Grading	7
All Weather Access	45
Total Proposed Construction Emissions	54
Amortized Construction Emissions <sup>1</sup>	1.8
Notes: MT CO <sub>2</sub> e/year = metric tons of carbon dioxide equivalent per year	
<sup>1</sup> Construction emissions are amortized over 30 years, which is the assumed lifetime of the proposed project.	
Source: Compiled by AECOM in 2014	

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

*No Impact.* DWR has developed the GGERP to guide its efforts in reducing GHG emissions (DWR 2012). The GHG emissions reduction measures proposed in the plan were developed for the purpose of reducing emissions of GHGs in California as directed by Executive Order S-3-05 and AB 32. DWR has established the following GHG emissions reduction goals:

- ▶ Reduce GHG emissions from DWR activities by 50% below 1990 levels by 2020.
- ▶ Reduce GHG emissions from DWR activities by 80% below 1990 levels by 2050.

DWR specifically prepared its GGERP as a “Plan for the Reduction of Greenhouse Gas Emissions” for purposes of addressing State 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 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 State CEQA Guidelines, Section 15064, Subdivision [h][3].)

More specifically, “[l]ater 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” (State CEQA Guidelines Section 15183.5, Subdivision [b][2]).

Section 12 of the GGERP outlines the steps that each DWR project will take to demonstrate consistency with the GGERP:

- ▶ analysis of GHG emissions from construction of the proposed project,

- ▶ determination that the construction emissions from the project do not exceed the levels of construction emissions analyzed in the GGERP,
- ▶ incorporation into the design of the project DWR’s project-level GHG emissions reduction strategies,
- ▶ determination that the project does not conflict with DWR’s ability to implement any of the “specific action” GHG emissions reduction measures identified in the GGERP, and
- ▶ determination that the project would not add electricity demands to the State Water Project (SWP) system that could alter DWR’s emissions reduction trajectory in such a way as to impede its ability to meet its emissions reduction goals.

Preconstruction and final design BMPs are designed to ensure that individual projects are evaluated and their unique characteristics taken into consideration when determination is made regarding whether specific equipment, procedures, or material requirements are feasible and efficacious for reducing GHG emissions from the project. The proposed project would implement the following preconstruction and final design BMPs:

- ▶ 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. 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.

According to the GGERP, all DWR projects are expected to implement all construction BMPs unless a variance is granted and approved by the DWR CEQA Climate Change Committee (DWR 2012). Therefore, the following applicable BMPs are incorporated into the design of the proposed project:

- ▶ BMP 7. 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 8. 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 will be detailed in an Air Quality Control Plan prior to commencement of construction.
- ▶ BMP 9. Implement tire inflation program on jobsite to ensure that equipment tires are correctly inflated. Check tire inflation when equipment arrives on-site and every 2 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 will be documented in an Air Quality Management Plan prior to commencement of construction.

- ▶ 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 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.

According to the criteria established by DWR's GGERP, because the proposed project would not generate GHG emissions that exceed the levels prescribed in the GGERP, would comply with the preconstruction and final design BMPs, would not conflict with DWR's ability to implement any "specific action" mitigation measures, and would not add electricity demands to the SWP, the proposed project would not conflict with the AB 32 Scoping Plan; GGERP; or any other plans, policies, or regulations prepared or established to reduce GHG emissions. Because the project is in compliance with the GGERP, there would be no impact.

### 3.8 HAZARDS AND HAZARDOUS MATERIALS

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

#### 3.8.1 ENVIRONMENTAL SETTING

Minor amounts of hazardous materials are required for maintenance and operation of the equipment and facilities at the existing SMY. Typically, DWR does not store, transport, or use large amounts of hazardous materials to maintain such facilities.

### 3.8.2 DISCUSSION

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

*Less-than-Significant Impact.* Project activities would not require extensive or ongoing use of acutely hazardous materials or substances.

Grading activities would require limited, short-term handling of hazardous materials, such as fueling and servicing construction equipment on-site with fuels, lubricating fluids, and solvents, which is discussed further in question 3.8.2(b) below. After the conclusion of grading activities, the type and amount of hazardous materials used during normal operations would be the same as at the existing adjacent SMY. No hazardous materials would be stored at the project site.

The proposed project would not involve the routine transport, use, or disposal of hazardous materials and would not create a significant hazard to the public related to hazardous materials. This potential impact would be less than significant.

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

*Less-than-Significant Impact.* As noted under question 3.8.2(a) above, the use of hazardous materials for project operations would not change. Grading activities would require the use of minor amounts of hazardous materials. The SMY maintains a Hazardous Materials Permit, and has a designated staff person responsible for ensuring that all activities including the use of hazardous materials would follow proper safety protocols. These protocols include spill prevention and cleanup, and proper disposal. Implementation of these standard practices would reduce any potential impacts to a less-than-significant level.

**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.* The closest school to the project site is Steindorf School, located approximately 1.2 miles north of the project site. There is no potential for hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Therefore, no impact would occur.

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

*No Impact.* The Hazardous Waste and Substances Sites List, known as the Cortese List, is compiled by the California Department of Toxic Substances Control (DTSC) in accordance with California Government Code Section 65962.5. As part of the *Phase I Environmental Site Assessment* performed for the project (DWR 2013), a search of the Cortese List and search for sites with reported hazardous material spills, leaks, ongoing investigations, and/or remediation near the project site was performed. In addition, a search was conducted using the State Water Resources Control Board's GeoTracker database (SWRCB 2013). These searches did not identify any potential hazardous contamination sites near the project site. No impact would occur.

**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 project site is not located within 2 miles of a public airport. The nearest public airport, the Yuba County Airport, is located approximately 10 miles southeast of the project site. The *Yuba County Airport Comprehensive Land Use Plan* (SACOG 1994) describes the compatibility guidelines established for the Yuba County Airport to ensure that safety hazards are addressed within the plan area. The project site is located outside of the plan area. The proposed project would not create a hazard associated with airport operations for people residing or working in the project area. No impact would occur.

**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 project site is not located within 2 miles of a private airstrip. The nearest private airstrip, Vanderford Ranch Company Airport, is located approximately 3.3 miles from the project site. The proposed project would not create a safety hazard associated with airport operations for people residing or working in the project area. No impact would occur.

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

*No Impact.* Emergency response routes and plans would not be affected by the proposed project. Implementing the proposed project would not require any road or lane closures. The proposed project would not impair or interfere with emergency access to the existing SMY, Colusa Highway, or local roads. Emergency response and evacuation routes would remain open. No impact would occur.

**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?**

*Less-than-Significant Impact.* The California Department of Forestry and Fire Protection (CAL FIRE) classifies areas over which it has responsibility as moderate, high, or very high fire hazard severity zones. CAL FIRE has not designated a fire severity hazard zone for the project site; it is designated as Local Responsibility Area Unzoned (CAL FIRE 2007). None of the communities near the project site are shown on the map of communities at risk from wildfire (CAL FIRE 2001). In the event of a fire requiring emergency response at the project site, existing access roads could be used to accommodate firefighting crews and equipment. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, this impact would be less than significant.

### 3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 on- or off-site flooding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.9.1 ENVIRONMENTAL SETTING

##### HYDROLOGY

##### Surface Water

The project site is located within the Gilsizer Slough-Snake River subwatershed, in the Honcut Headwaters-Lower Feather watershed. The project site is located immediately adjacent to and northwest of the Wadsworth

Canal, and approximately 2.3 miles northeast of the Sutter Bypass. Wadsworth Canal carries winter floodwaters and summer irrigation runoff water from the Snake River (which begins northeast of the Sutter Buttes) and the West Interception Canal, to the Sutter Bypass. The Sutter Bypass is a leveed channel of the Lower Sacramento Valley flood control system along the southwest portion of the Sutter Basin. The bypass is intended to convey flows from the Tisdale Weir (near the Sutter Buttes) to the Feather River. The bypass also receives similar flow from the Colusa Weir. The Snake River, Gilsizer Slough, Wadsworth Canal, and other west-side watercourses of the Lower Feather watershed ultimately drain to the Feather River via the Sutter Bypass.

## **Groundwater**

The project site is located in the Sutter Subbasin, which lies in the eastern central portion of the Sacramento Valley Groundwater Basin. It is bounded on the north by the confluence of Butte Creek and the Sacramento River and Sutter Buttes, on the west by the Sacramento River, on the south by the confluence of the Sacramento River and the Sutter Bypass, and on the east by the Feather River. The Sutter Subbasin aquifer system is composed of continental, sedimentary deposits of Quaternary to Late Tertiary (Miocene) age. The volcanic rocks that are present in the area in and around Sutter Buttes do not represent water-bearing formations. Stream percolation, deep percolation of rainwater, and percolation of irrigation water are the principal sources of groundwater recharge in the Sacramento Valley. DWR records indicate that groundwater levels have remained relatively constant. DWR hydrographs indicate that the groundwater table is present at shallow depths below the ground surface (bgs); most groundwater levels in the Sutter Subbasin tend to be within about 10 feet bgs (DWR 2006).

## **WATER QUALITY**

### **Surface Water**

Runoff from the project site eventually discharges via overland flow to the Sutter Bypass, which has the following designated beneficial uses attributed in the water quality control plan (Basin Plan) adopted by the Central Valley Regional Water Quality Control Board (RWQCB) (Central Valley RWQCB 2011):

- ▶ agricultural irrigation,
- ▶ contact recreation,
- ▶ warm freshwater habitat,
- ▶ cold water fish migration and spawning habitat, and
- ▶ wildlife habitat.

The currently adopted (2010) version of the Section 303(d) list for California issued by the State Water Resources Control Board (SWRCB 2010) indicates that Sutter Bypass is listed as impaired for mercury from resource extraction (e.g., mining operations).

### **Groundwater**

DWR maintains data for 38 water quality wells in the Sutter Subbasin. Data collected from these wells indicate that the total dissolved solids (TDS) content varies widely, from 133 to 1,660 milligrams per liter (mg/l). The primary groundwater components in the subbasin are calcium, magnesium, sodium, chloride, sulfate, and bicarbonate, which may occur in any combination. Groundwater containing calcium magnesium bicarbonate or magnesium calcium bicarbonate can be found in the northwest portion of the subbasin. Groundwater quality data also indicate that some wells drilled to various depths contain chemical compounds in amounts that exceed

drinking water quality safety and aesthetic standards. Groundwater resources in some portions of Sutter County also have high levels of naturally occurring minerals. (DWR 2006).

## FLOODPLAIN MAPPING

The most recent Federal Emergency Management Agency (FEMA) Flood Insurance Study Flood Insurance Rate Map indicates that the southern portion of the project site is within both a 100- and 500-year floodplain (FEMA 1996) (Exhibit 3.9-1). These floodplains are associated with the Sutter Bypass and the Wadsworth Canal.

### 3.9.2 DISCUSSION

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

*Less than Significant with Mitigation Incorporated.* As described in Chapter 2, “Project Description,” the existing walnut orchard would be removed and the project site would be graded to provide for appropriate storage and access of equipment. Clearing, grubbing of orchard trees, and grading would result in soil disturbance, which could increase the amount of sediment transport. This impact is considered potentially significant. Project-related construction would involve the use of small quantities of hazardous substances such as fuels, oils, and lubricants. The SMY maintains a Hazardous Materials Permit, and has a designated staff person responsible for ensuring that all activities including the use of hazardous materials would follow proper safety protocols. These protocols include spill prevention and cleanup, and proper disposal. Implementation of these standard practices would reduce any potential impacts to a less-than-significant level.

#### **Mitigation Measure: Implement Mitigation Measure HYDRO-1 (Prepare and Implement a Storm Water Pollution Prevention Plan).**

DWR will obtain coverage under the State Water Resources Control Board’s National Pollutant Discharge Elimination System storm water permit for general construction activity (Order 2009-0009-DWQ), including preparation and submittal of a project-specific Storm Water Pollution Prevention Plan (SWPPP) at the time the notice of intent to discharge is filed. The SWPPP will identify and specify the following details:

- ▶ the use of an effective combination of appropriate erosion and sediment control best management practices (BMPs) for use on the project site at the time of construction that would reduce the potential for runoff and the release, mobilization, and exposure of pollutants from project-related construction sites (these may include but would not be limited to temporary erosion control and soil stabilization measures, sedimentation ponds, check dams, and silt fences);
- ▶ the pollutants likely to be used during construction and operation that could be present in storm water runoff;
- ▶ spill prevention and contingency measures, including measures to prevent or clean up spills of hazardous waste and of hazardous materials used for equipment operation, and emergency procedures for responding to spills;
- ▶ the means of waste disposal;

- ▶ personnel training requirements and procedures that would be used to ensure that workers are aware of permit requirements and proper installation methods for BMPs specified in the SWPPP; and
- ▶ the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP.

Where applicable, BMPs identified in the SWPPP will be in place throughout all site work and construction activities. BMPs may include but would not be limited to the following measures:

- ▶ Implement temporary erosion and sediment control measures in disturbed areas to minimize discharge of sediment into nearby drainage conveyances, in compliance with state standards in effect at the time of construction. These measures may include silt fences, staked straw bales or wattles, sediment/silt basins and traps, geofabric, sandbag dikes, and temporary vegetation.
- ▶ Establish permanent vegetative cover to reduce erosion in areas disturbed by construction by slowing runoff velocities, trapping sediment, and enhancing filtration and transpiration.
- ▶ Use drainage swales, ditches, and earth dikes to control erosion and runoff by conveying surface runoff down sloping land, intercepting and diverting runoff to a watercourse or channel, preventing sheet flow over sloped surfaces, preventing runoff accumulation at the base of a grade, and avoiding flood damage along roadways used to transport sediment.

A copy of the approved SWPPP will be available at all times on the construction site.

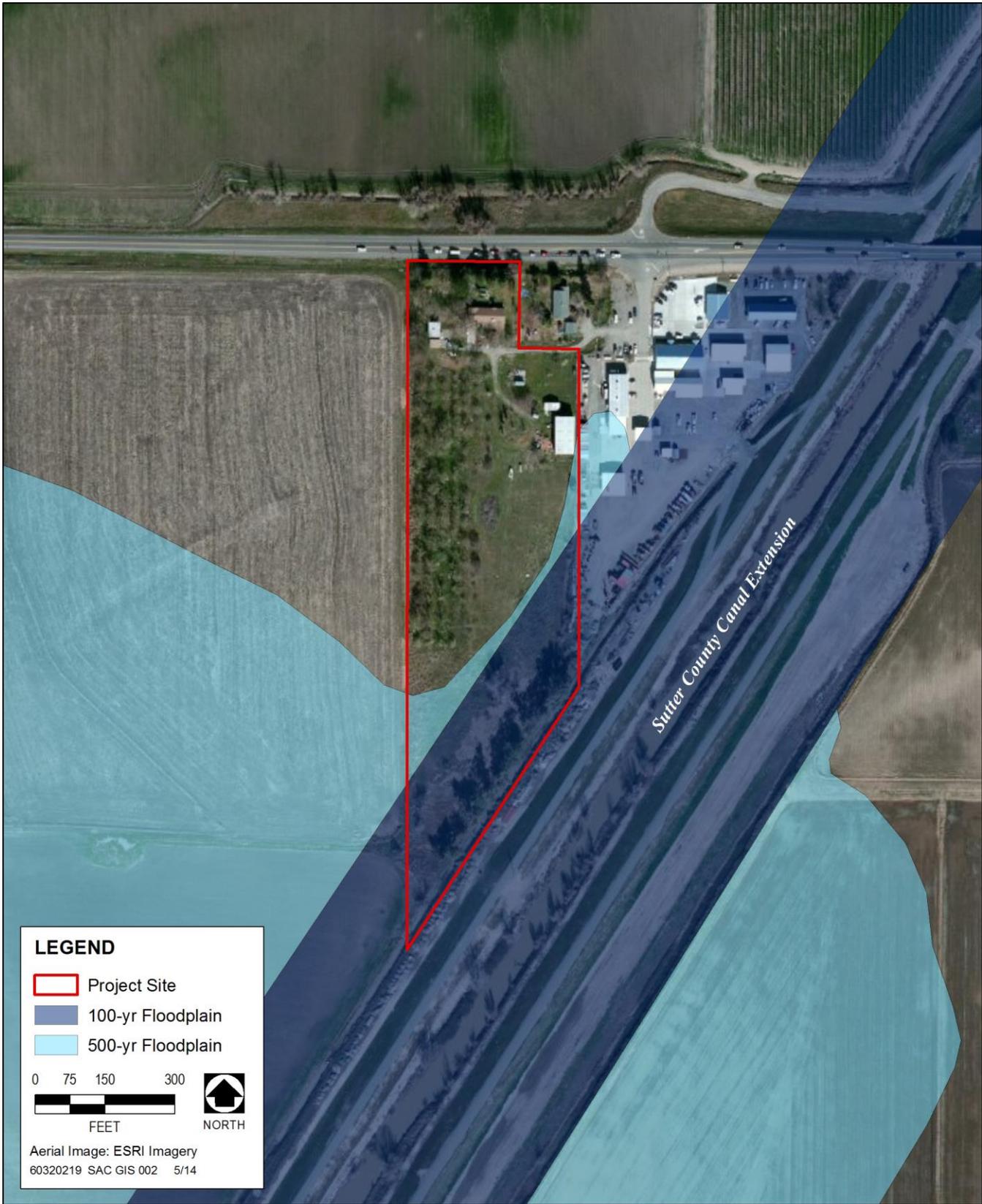
Implementation of Mitigation Measure HYDRO-1 would reduce the impact associated with construction-related water quality to a less-than-significant level because a SWPPP and associated BMPs that are specifically designed to reduce sedimentation would be prepared and implemented.

**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 that would not support existing land uses or planned uses for which permits have been granted)?**

*Less-than-Significant Impact.* The proposed project is intended to provide storage of flood fighting materials and equipment. The existing on-site metal storage shed would be retained for future use, and aggregate base (i.e., crushed rock) would be installed for site access. The proposed project does not involve the construction of new impervious surfaces and does not entail the use of groundwater. Therefore, no impact would occur.

**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 on- or off-site erosion or siltation?**

*Less than Significant with Mitigation Incorporated.* As described in Chapter 2, “Project Description,” the existing orchard would be removed and the project site would be graded to provide for appropriate storage and access of equipment. Clearing, grubbing of orchard trees, and grading would result in substantial soil disturbance, which would alter the existing drainage pattern and could result in erosion or siltation. Therefore, this impact would be potentially significant.



Source: FEMA 1996

**Exhibit 3.9-1**

**Floodplain Mapping**

**Mitigation Measure: Implement Mitigation Measure HYDRO-1 (Prepare and Implement a Storm Water Pollution Prevention Plan).**

Implementation of Mitigation Measure HYDRO-1 would reduce the impact associated with construction-related soil erosion to a less-than-significant level because a SWPPP and associated BMPs that are specifically designed to reduce erosion would be prepared and implemented.

**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 on- or off-site flooding?**

*Less-than-Significant Impact.* The project site is nearly flat; elevations at the project site range from approximately 47-48 feet above mean sea level. Following the proposed orchard clearing and grubbing activities, the project site would be graded back to the existing condition. Therefore, the proposed project would not substantially alter existing drainage patterns such that new flooding would occur, and this impact would be less than significant.

**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?**

*Less-than-Significant Impact.* Implementing the proposed project would not create or contribute runoff that would exceed the capacity of stormwater drainage systems, because no such systems are present in the project vicinity. No operation-related washing of vehicles would occur on the project site. Project-related construction would involve the use of small quantities of hazardous substances such as fuels, oils, and lubricants. The SMY maintains a Hazardous Materials Permit, and has a designated staff person responsible for ensuring that all activities including the use of hazardous materials would follow proper safety protocols. These protocols include spill prevention and cleanup, and proper disposal. Implementation of these standard practices would reduce any potential impacts to a less-than-significant level.

**f) Otherwise substantially degrade water quality?**

*No Impact.* Water quality impacts associated with the proposed project are addressed in questions 3.9.2(a), (c), and (e) above. No other water quality impacts would occur.

**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 does not involve the construction of housing; therefore, no impact would occur.

**h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?**

*Less-than-Significant Impact.* As shown on Exhibit 3.9-1, the southern end of the project site is located within FEMA 100- and 500-year floodplains (FEMA 1996). The proposed project entails an expansion of the existing SMY facility for storage of equipment and materials. The storage of equipment and materials and continued use of the existing storage shed on the project site would not substantially impede or redirect flood flows. Therefore, this impact would be less than significant.

**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 (Beneficial) Impact.* The proposed project entails expansion of the existing SMY for storage of equipment and materials needed for flood maintenance and emergency response. Land clearing and grading and storage of equipment would not expose people or structures to an increased risk of loss or death related to flooding and would have no effect on the continued stability of the existing flood-control structures. Therefore, this impact would be less than significant. More accessible storage of emergency and flood maintenance equipment for future flood fighting would represent a beneficial impact for the surrounding region as more expedient flood fighting would result from the proposed project.

**j) Result in inundation by seiche, tsunami, or mudflow?**

*No Impact.* The project site is not located close enough to any areas of steep terrain to where mudflow would represent a hazard. The project site is located approximately 2.3 miles northeast of the Sutter Bypass, approximately 7.5 miles west of the Feather River, and approximately 90 miles east of the Pacific Ocean. Because of the distance from these water bodies, seiches and tsunamis would not represent a hazard at the project site. Therefore, no impact would occur.

### 3.10 LAND USE AND PLANNING

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

#### 3.10.1 ENVIRONMENTAL SETTING

The proposed project is located in northern Sutter County, less than 1 mile south of the unincorporated community of Sutter, 3 miles west of the city of Yuba City, and adjacent to Colusa Highway (Highway 20) (see Exhibit 2-1 in Chapter 2, “Project Description”).

The 9.8-acre project site is located within a rural agricultural and residential area of Sutter County. Currently, approximately 4 acres of the project site contains an immature walnut orchard. There are two unoccupied residences and small shed on the northern end of the site and two barns and a metal building on the eastern side of the site. The southern end of the project site is bordered by a windrow of tall eucalyptus trees and Wadsworth Canal runs north to south along the southern border of the project site.

Active agricultural fields also are located north, west, and south of the project site. The existing DWR SMY is located east of the project site. The SMY contains 120 pieces of equipment, 24 flood fight readiness cargo containers, an equipment shop, two administration buildings, and warehouses.

One occupied residence is located adjacent to the northeastern boundary of the project site, approximately 120 feet west of the entrance of the existing SMY and approximately 50 feet east of the entrance of the project site. Scattered residences are also present in the vicinity of the project site along Highway 20 and Acacia Avenue.

The Sutter County General Plan was adopted by the County Board of Supervisors on March 29, 2011. The General Plan supports a broad continuation of the current land use pattern in unincorporated Sutter County through 2030, while affording new opportunities for growth and change and promoting a vibrant and sustainable economy that attracts diverse jobs and services (Sutter County 2011). No goals or policies identified in the Sutter County General Plan are applicable to the proposed project.

The project site and surrounding lands are designated by the General Plan as Agriculture, 80-acre minimum parcel size (AG-80). This designation identifies land for the production of food and fiber, including areas of prime agricultural soils, and other productive and potentially productive lands where commercial agricultural uses can exist without creating conflicts with other land uses, or where potential conflicts can be mitigated. Typical land

uses allowed include crop production; orchards; grazing; pasture and rangeland; resource extraction activities; facilities that directly support agricultural operations, such as agricultural products processing; and necessary public utility and safety facilities (Sutter County 2011).

The project site and surrounding lands are zone by Sutter County as General Agricultural District (AG). This district was established to provide areas for general farming, low-density uses, open spaces, and, by use permit, limited retail service uses.

### 3.10.2 DISCUSSION

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

*No Impact.* Two unoccupied residences are located on the northern end of the project site. One occupied residence is located between the project site and the entrance of the existing SMY. These residences are not formally or informally known as an established community. Therefore, implementing the proposed project would not physically divide an established community. No impact would occur.

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

*No Impact.* The proposed project would support of the Division’s mission to “prevent loss of life and reduce property damage caused by floods” and as an integral part of the Central Valley Flood Protection Plan, it is necessary to expand the SMY by 9.8-acres to allow for storage of strategically located emergency preparedness flood fight containers and materials, which is a requirement of Public Law 84-99 that allows for federal reimbursement funding for flood system repairs following a flood event.

Implementation of the proposed project would consist of removal of an orchard, grading, construction of an all-weather access, and placement of temporary metal storage containers on the project site as needed to accommodate storage of flood fight equipment and supplies. As discussed above, the project site is designated by the Sutter County General Plan as Agriculture, 80-acre minimum parcel size and zoned as AG, both of which allow for necessary public utility and safety facilities. The use of the project site for storage of equipment and materials needed for flood maintenance and emergency response would not conflict with the County’s land use designation or zoning of the project site. Therefore, the proposed project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

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

*No Impact.* The project site is not located within an area covered by an adopted HCP/NCCP, or any other habitat conservation plan. (See Section 3.4, “Biological Resources,” for further discussion.) Therefore, no adopted or approved HCP/NCCP is in effect that would apply to the proposed project. No impact would occur.

### 3.11 MINERAL RESOURCES

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

#### 3.11.1 ENVIRONMENTAL SETTING

Under the Surface Mining and Reclamation Act, the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. The board’s decision to designate an area is based on a classification report prepared by CGS (formerly California Division of Mines and Geology) and on input from agencies and the public. The project site is located approximately 3 miles west of the designated Yuba City-Marysville Production-Consumption Region for aggregate materials, which includes all designated lands within the marketing area of the active aggregate operations supplying the Yuba City–Marysville urban area (Habel and Campion 1988:2).

In compliance with the Surface Mining and Reclamation Act, CGS has established a classification system to denote both the location and the significance of key extractive resources. However, the project site has not been classified (CGS 2013).

The closest mining operation to the project site is South Butte Quarry, formerly Butte Sand & Gravel, located approximately 3.25 miles to the northwest (Larose et al. 1999). Another mining operation, West Butte Aggregates, is located approximately 4.7 miles northwest of the project site (Larose et al. 1999). Both mining operations are located on the lower slopes of the Sierra Buttes. Policy ER 5.3 in the Sutter County General Plan prohibits the establishment of any new mining operations in the Sutter Buttes (Sutter County 2011:Chapter 9). The two mining operations in the vicinity of the project site are located in Pliocene- to Pleistocene-age volcanic pyroclastic rocks, while the project site is located in Holocene-age alluvial basin deposits (Saucedo and Wagner 1992).

#### 3.11.2 DISCUSSION

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

*No Impact.* The project site has not been classified by CGS for mineral resources. Although several important aggregate mining operations are located in the project vicinity, they are located in Pliocene- to Pleistocene-age volcanic pyroclastic rocks. The Holocene-age alluvial basin deposits that underlie the project site are not located

adjacent to a major stream or river where aggregate resources would typically be found. No known mineral deposits are present at the project site. Therefore, no impact would occur.

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

*No Impact.* The project site is not designated as a locally important mineral resource recovery site in the Sutter County General Plan (PBS&J 2008:Chapter 4; Sutter County 2011:Chapter 9). Thus, the proposed project would not result in a loss of availability of locally important mineral resources. No impact would occur.

### 3.12 NOISE

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

#### 3.12.1 ENVIRONMENTAL SETTING

##### BASICS OF ENVIRONMENTAL ACOUSTICS AND VIBRATION

##### Sound, Noise, and Acoustics

Sound is the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is defined as sound that is unwanted (i.e., loud, unexpected, or annoying). Acoustics is the physics of sound.

The amplitude of pressure waves generated by a sound source determines the perceived loudness of that source. A logarithmic scale is used to describe sound pressure level in terms of decibels (dB). The threshold of human hearing (near-total silence) is approximately 0 dB. A doubling of sound energy corresponds to an increase of 3 dB. In other words, when two sources at a given location are each producing sound of the same loudness, the resulting sound level at a given distance from that location is approximately 3 dB higher than the sound level produced by only one of the sources. For example, if one automobile produces a sound pressure level of 70 dB when it passes an observer, two cars passing simultaneously do not produce 140 dB; rather, they combine to produce 73 dB.

The perception of loudness can be approximated by filtering frequencies using the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this section are in terms of A-weighting.

As discussed above, doubling sound energy results in a 3-dB increase in sound. In typical noisy environments, noise-level changes of 1–2 dB are generally not perceptible by the healthy human ear; however, people can begin to detect 3-dB increases in noise levels. An increase of 5 dB is generally perceived as distinctly noticeable and a 10-dB increase is generally perceived as a doubling of loudness.

The following are the sound level descriptors most commonly used in environmental noise analysis:

- ▶ **Equivalent sound level ( $L_{eq}$ ):** An average of the sound energy occurring over a specified time period. In effect, the  $L_{eq}$  is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour, A-weighted equivalent sound level ( $L_{eq[h]}$ ) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- ▶ **Maximum sound level ( $L_{max}$ ):** The highest instantaneous sound level measured during a specified period.
- ▶ **Day-night average level ( $L_{dn}$ ):** The energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours (10 p.m.–7 a.m.).

Sound from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, and the sound level attenuates (decreases) at a rate of 6 dB for each doubling of distance from a point/stationary source. Roadways and highways and, to some extent, moving trains consist of several localized noise sources on a defined path; these are treated as “line” sources, which approximate the effect of several point sources. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. Therefore, noise from a line source attenuates less with distance than noise from a point source with increased distance.

## Groundborne Vibration

Groundborne vibration is energy transmitted in waves through the ground. Vibration attenuates at a rate of approximately 50% for each doubling of distance from the source. This approach considers only the attenuation from geometric spreading and tends to provide for a conservative assessment of vibration level at the receiver.

Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Vibration is typically described by its peak and root-mean-square (RMS) amplitudes. The RMS value can be considered an average value over a given time interval. The peak vibration velocity is the same as the “peak particle velocity” (PPV), generally presented in units of inches per second. PPV is the maximum instantaneous positive or negative peak of the vibration signal and is generally used to assess the potential for damage to buildings and structures. The RMS amplitude is typically used to assess human annoyance to vibration.

## EXISTING NOISE CONDITIONS

As described in Chapter 2, “Project Description,” the proposed project is located in northern Sutter County, less than 1 mile south of the unincorporated community of Sutter, 3 miles west of the city of Yuba City, and adjacent

to Colusa Highway (Highway 20) (Exhibit 2-1). Wadsworth Canal runs north to south along the southern border of the project site (Exhibit 2-2).

The closest noise-sensitive uses to the project area are rural/agricultural residential properties in three locations: along Highway 20 between the existing SMY and project site; along Highway 20 just east of Wadsworth Canal; and to the west of Acacia Avenue, north and south of Highway 20. There is a residential property located within 50 feet of the project site, with the next two closest residential properties located approximately 1,200 feet and 2,500 feet, respectively, from the primary project construction area.

Existing noise sources in the project area include distant traffic, agricultural operations, and natural noise (wildlife vocalizations, wind, and birds). The nearest airport, Vanderford Ranch Company Airport, is located approximately 3.5 miles south of the project site. No airstrips are located in the project vicinity. Ambient noise levels were not measured for the proposed project. However, given the rural/agricultural nature of the land surrounding the project area, ambient noise levels are expected to be quite low—at or below 55 dBA  $L_{eq}$ , 50 dBA  $L_{eq}$ , and 45 dBA  $L_{eq}$  during the daytime, evening, and nighttime hours, respectively.

### 3.12.2 APPLICABLE PLANS, POLICIES AND ORDINANCES ADDRESSING NOISE AND VIBRATION

#### CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation has developed guidelines for assessing the significance of vibration produced by transportation and construction sources (Table 3.12-1). These thresholds address the subjective reactions of people to both short-term vibration (e.g., from temporary construction activities) and long-term/permanent vibration (e.g., from transit operations).

<b>Table 3.12-1 California Department of Transportation Guidelines on Potential Criteria for Vibration Annoyance</b>		
Human Response	Impact Levels, VdB re: 1 $\mu$ in/sec (PPV, in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	80 (0.040)	68 (0.010)
Distinctly perceptible	96 (0.250)	80 (0.040)
Strongly perceptible	107 (0.900)	88 (0.100)
Severe	114 (2.000)	100 (0.400)

Notes:  $\mu$ in/sec = microinches per second; in/sec = inches per second; PPV = peak particle velocity; VdB = vibration decibels  
 Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.  
 Source: Caltrans 2004

#### SUTTER COUNTY GENERAL PLAN

**Goal N.1** Protect the health and safety of County residents from the harmful effects of exposure to excessive noise and vibration.

## Policies

- ▶ **N 1.6 Construction Noise.** Require discretionary projects to limit noise-generating construction activities within 1,000 feet of noise-sensitive uses (i.e., residential uses, daycares, schools, convalescent homes, and medical care facilities) to daytime hours between 7:00 a.m. and 6:00 p.m. on weekdays, 8:00 a.m. and 5:00 p.m. on Saturdays, and prohibit construction on Sundays and holidays unless permission for the latter has been applied for and granted by the County.
- ▶ **N 1.7 Vibration Standards.** Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise-sensitive uses based on Federal Transit Administration criteria as shown in Table 3.12-2 (Groundborne Vibration Impact Criteria for General Assessment).

<b>Table 3.12-2 Groundborne Vibration Impact Criteria for General Assessment</b>			
Land Use Category	Impact Levels (VdB)		
	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>
Category 1: Buildings where vibration would interfere with interior operations	65 <sup>d</sup>	65 <sup>d</sup>	65 <sup>d</sup>
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83
Vibration levels are measured in or near the vibration-sensitive use. 1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. 2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. 3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Source: Sutter County 2011.			

## SUTTER COUNTY CODE

Currently, Sutter County does not have a noise ordinance contained in its Code. The General Plan standards listed above are the only regulations pertaining to noise in the county.

### 3.12.3 DISCUSSION

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

*Less-than-Significant Impact.* Construction activities would be conducted consistent with the Sutter County General Plan. As noted in Mitigation Measure NOISE-1 below, construction activities associated with the proposed project would be limited to weekdays between 8 a.m. and 6 p.m. Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the

day during construction. No permanent increase in ambient noise levels would result, as operation activities associated with the proposed project would create negligible noise. This impact would be less than significant.

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

*Less-than-Significant Impact.* The Sutter County General Plan identifies groundborne vibration impact criteria for projects that could impact (i.e., annoyance, sleep disruption) residential uses (Table 3.12-2); a maximum acceptable vibration standard of 80 vibration decibels is recommended for infrequent events (Sutter County 2011).

No permanent increase in groundborne vibration would result. Project construction may result in varying degrees of temporary ground vibration, depending on the specific equipment used and operations involved. Groundborne vibration levels caused by various types of equipment are summarized in Table 3.12-3.

Table 3.12-3 Typical Construction Equipment Vibration Levels		
Equipment	PPV at 25 feet (in/sec)	Approximate L <sub>v</sub> at 25 feet
Haul trucks	0.076	86
Large bulldozer	0.089	87
Notes: in/sec = inches per second; L <sub>v</sub> = velocity level in decibels (VdB) referenced to 1 microinch per second and based on the root mean square velocity amplitude; PPV = peak particle velocity.		
Source: FTA 2006		

Project construction–related vibration would result from the use of heavy equipment for area clearing, grading, and earthmoving. These activities would produce a vibration level of approximately 87 vibration decibels (VdB) (0.089 inch per second PPV) at a distance of 25 feet (which is the reference vibration level for operation of a large bulldozer [FTA 2006; Caltrans 2004]). The distance between proposed construction activities and the closest acoustically sensitive uses would be approximately 100 feet (which is the distance to the actual residence within the property located within 50 feet of the project site). Assuming a standard reduction of 6 VdB per doubling of distance, the project-related construction vibration level at this receiver would be approximately 74 to 75 VdB. This is below the recommended threshold of significance noted above, and construction near the receiver would be short-term and temporary. This impact would be less than significant.

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

*No Impact.* The proposed project would involve short-term construction activities and would not introduce any permanent sources of noise. Additionally, the project would not alter the local environment, such as by increasing the noise production/exposure associated with existing, permanent sources of noise in the project area. Therefore, no impact would occur.

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

*Less than Significant with Mitigation Incorporated.* Given the existing rural and agricultural land uses in the area, ambient noise levels at the existing rural residential properties in the vicinity of the project site are expected to be approximately 55 dBA, 50 dBA, and 45 dBA  $L_{eq[h]}$ , respectively, during the daytime (7 a.m.–7 p.m.), evening (7 p.m.–10 p.m.), and nighttime (10 p.m.–7 a.m.) hours. A project-related construction noise level of +10 dB above the assumed ambient level ( $L_{eq[h]}$ ) would be considered significant at residential receivers in the project vicinity. This is based on the *Interim Construction Noise Guideline* prepared by Australia’s Department of Environment & Climate Change NSW (2009). This is considered to be an appropriate impact threshold for temporary noise exposure, like that caused by short-term construction activities as proposed.

Construction noise levels would fluctuate depending on the particular types of equipment being used, the number of pieces of equipment being used, and the duration of use. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment near the receptor. Project-related construction noise was estimated using the Federal Highway Administration’s Roadway Construction Noise Model and a list of heavy equipment expected to be used. It was assumed that a dozer, front loader, excavator, dump truck, and water truck could be used during construction, and that up to two of these pieces of equipment could be operated simultaneously at any given time and at any location in the project area. The unmitigated noise level produced by this combination of equipment would be approximately 78 dBA at a distance of 50 feet. Assuming standard spherical spreading loss (-6 dB per doubling of distance), unmitigated construction noise levels were calculated at the closest existing residential uses. The calculated noise levels are summarized in Table 3.12-4. The results represent worst-case, conservative noise exposure because they do not consider noise attenuation associated with ground and atmospheric absorption. Therefore, actual construction noise levels could be substantially less.

General Location of Receiver Relative to Construction Area	Source to Receiver Distance (feet)	Construction Noise Level (dBA $L_{eq}$ )
North of the Project Site	50	78
East of Wadsworth Canal	1,200	54
West of Acacia Avenue	2,500	48
Notes: dBA = A-weighted decibels; $L_{eq}$ = 1-hour equivalent sound level (the sound energy averaged over a continuous 1-hour period)		
Source: Data compiled by AECOM in 2014		

As shown in Table 3.12-4, unmitigated project-related construction noise levels could be as high as 78 dBA  $L_{eq[h]}$  at the residential property closest to the project site. This noise level exceeds the threshold of 10 dB above ambient significance thresholds; therefore, this impact would be potentially significant.

Noise generated during project operations would be the same as noise generated at the existing SMY during flood fighting activities. The project does not propose any increase in existing operations at the site. In addition, the access route used for operations and maintenance, and flood fighting would remain the same. Therefore, the project would not cause any new operational noise, and this impact would be less than significant.

**Mitigation Measure NOISE-1: Notify Nearby Residences Prior to Construction and Limit Construction Activities.**

- ▶ Notify sensitive receptors adjacent to the project site prior to any construction activities. All grading work on the project site will be restricted to weekdays between 8 a.m. and 6 p.m.

Implementing Mitigation Measure NOISE-1 would reduce the impact associated with construction-related noise to a less-than-significant level.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

*No Impact.* The project site is not located within 2 miles of a public airport. The nearest public airport, the Yuba County Airport, is located approximately 10 miles southeast of the project site. Because all project activities would be located outside of the Airport Comprehensive Land Use Plan area and the project would not involve any aircraft uses for construction or operations, the proposed project would not affect any airport operations and would not expose people on- or off-site to excessive noise levels. Therefore, no impact would occur.

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

*No Impact.* No private airstrips are in the vicinity of the project site, and the proposed project would not affect any airstrip operations. Therefore, implementing the proposed project would not expose people on- or off-site to excessive noise levels. No impact would occur.

### 3.13 POPULATION AND HOUSING

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

#### 3.13.1 ENVIRONMENTAL SETTING

There are two unoccupied residences on the northern end of the project site, and one occupied residence located adjacent to the northeastern boundary of the project site. Scattered residences are also present in the vicinity of the project site along Highway 20 and Acacia Avenue.

#### 3.13.2 DISCUSSION

**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 would not involve constructing new homes or businesses or extending roadways or other infrastructure that could increase the population in the project vicinity. All construction activities would be performed by the SMY staff and no additional staff would be required for further operations of the SMY. Therefore, implementing the proposed project would not directly or indirectly induce substantial population growth. No impact would occur.

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

*No Impact.* Implementation of the proposed project would consist of removal of an orchard, grading, and construction of the all-weather access, and placement of temporary metal storage containers on the project site as needed to accommodate storage of flood fight equipment and supplies. None of the project activities would affect the existing residence adjacent to the northeastern boundary of the project site or other residences in the vicinity of the project site along Highway 20 and Acacia Avenue. Therefore, implementing the proposed project would not displace existing housing or necessitate the construction of replacement housing elsewhere.

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

*No Impact.* For the reasons described in response to question 3.13.2(b) above, implementing of the proposed project would not displace a substantial number of people or necessitate the construction of replacement housing elsewhere. No impact would occur.

### 3.14 PUBLIC SERVICES

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

#### 3.14.1 ENVIRONMENTAL SETTING

Fire protection services in the project area are provided by the Sutter County Fire Department. The Sutter County Fire Department provides fire suppression operations, medical aid at the basic life support level, a hazardous materials response team, technical rescue capabilities, and public education programs at all local elementary schools to unincorporated area of Sutter County (Sutter County 2014a). The department consists of three stations that provide fire protection services: Live Oak (station 5), Sutter (station 6), and Oswald-Tudor (station 8) and two volunteer stations: East Nicolaus (station 85) and Pleasant Grove (station 9). The closest Sutter County Fire Department station to the project area is the Sutter Fire Station, located approximately 2.5 miles north of the project site at 2340 California Street in the unincorporated community of Sutter.

The Sutter County Sheriff’s Office provides law enforcement services in the unincorporated portions of Sutter County, including the project site, and contract services for the City of Live Oak. The Sheriff’s Department includes patrol services and criminal and coroner investigations; operates the County jail; provides bailiff services at the County courthouse; operates a marine patrol unit, search and rescue, dive team, swift water rescue team, canine, and special enforcement detail team; and dispatches public safety personnel (Sutter County 2014b). The Sheriff maintains mutual aid agreements with the California Highway Patrol, the Yuba City Police Department, the Yuba County Sheriff Department, and the Marysville Police Department. The Sheriff’s Department headquarters and dispatch office is located at 1077 Civic Center Boulevard in Yuba City, approximately 6 miles east of the project site. This location serves as the hub of all dispatch activity for both sheriff and fire services for Sutter County.

There are no schools, parks, or other public services in the vicinity of the project site.

### 3.14.2 DISCUSSION

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

#### **Fire protection?**

*No Impact.* Implementation of the proposed project would consist of grading, construction of an all-weather access, and placement of temporary metal storage containers on the project site as needed to accommodate for storage of flood fight equipment and supplies. The proposed project would include uprooting and chipping of the immature walnut orchard. In the event of a fire requiring emergency response on the project site, existing access roads could be used to accommodate firefighting crews and equipment.

In addition, the proposed project would not generate new residents in the project area, nor would it involve the construction of any structures that would require additional fire protection services. No impact would occur.

#### **Police protection?**

*No Impact.* Sutter County Sheriff's Office provides law enforcement services in the unincorporated areas of Sutter County, including the areas around the project site. Implementation of the proposed project would provide additional storage of equipment and materials needed for flood maintenance and emergency response. A 6-foot-high chain link fence would be constructed around the perimeter of the project site that would protect against theft or vandalism. In addition, the proposed project would not provide any new housing that would generate new residents that would increase demand for police protection services and facilities. No impact would occur.

#### **Schools?**

*No Impact.* The proposed project would not provide any new housing that would generate new students in the community. Therefore, implementation of the proposed project would not increase the demand for school services and facilities. No impact would occur.

#### **Parks?**

*No Impact.* The proposed project would not provide any new housing that would generate new residents who require new or expanded park facilities. No impact would occur.

#### **Other public facilities?**

*No Impact.* No other public facilities exist in the project area that would be affected by implementing the proposed project. No impact would occur.

### 3.15 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.15.1 ENVIRONMENTAL SETTING

There are no existing recreational facilities in the vicinity of the proposed project.

#### 3.15.2 DISCUSSION

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

*No Impact.* The proposed project would not provide any new housing or employment opportunities that would generate new residents who would increase the use of existing recreational facilities. Therefore, the proposed project would not affect existing recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impact would occur.

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

*No Impact.* For the reasons described in response to question 3.15.2(a) above, implementing of the proposed project would not result in the construction or expansion of existing recreational facilities. No impact would occur.

### 3.16 TRANSPORTATION AND TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Would the project:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.16.1 ENVIRONMENTAL SETTING

The project site is in a rural region of Sutter County. Regional access to the project site is provided by State Route 99 (SR 99). SR 99 extends from the Sacramento County line north through Sutter County to the Butte County line. The roadway has two and four lanes over its length and provides regional access to the Sacramento metropolitan area in the south and the cities of Gridley and Chico in the north.

The project site can be accessed via Colusa Highway (Highway 20). Highway 20 is a two-, four-, and six-lane east-west roadway that extends through Sutter County from Colusa County to Yuba County. Additional roadways in the vicinity of the project site include Acacia Avenue and Humphrey Road, both of which are two-lane, north-south local roadways.

The Sutter County General Plan Transportation Element (Sutter County 2011) addresses transportation planning in the county. According to the General Plan Policy M 2.5, the traffic level of service (LOS) standard for county roadway segments and intersections is LOS D or better during peak hours and LOS C or better at all other times (Sutter County 2011).

The California Department of Transportation (Caltrans) prepares a long-term planning document called a Transportation Concept Report (TCR) for each of its facilities. The purpose of a TCCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period. Caltrans adopted a TCR for Highway 20 in March 2013. The TRC identifies the concept LOS for Highway 20 as LOS D in rural areas and LOS E in urban areas. Highway 20 from the Colusa-Sutter County line to Humphrey Road operates at LOS A (Caltrans 2013).

The Sacramento Area Council of Governments (SACOG) is responsible for regional transportation planning in Sutter County. The Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035 (MTP/SCS) adopted by SACOG in April 2012, is a federally mandated, long-range, fiscally constrained transportation plan for the six-county area that includes El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties and 22 cities (SACOG 2012). There are no improvements or policies that are applicable to Highway 20 or other local roadways in the vicinity of the proposed project.

### 3.16.2 DISCUSSION

- 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?**

*Less-than-Significant Impact.* The project site can be accessed via Highway 20, and additional roadways in the vicinity of the project site include Acacia Avenue and Humphrey Road. Highway 20 in the vicinity of the project site operates at LOS A (Caltrans 2013).

Construction-related traffic would consist of truck trips to haul materials and supplies to the project site, truck trips to haul aggregate base to the project site, as well as truck trips to haul debris off-site for disposal. It is estimated that construction-related truck trips could reach a total of around 37 round trips over an approximately 4-month period. Therefore, the proposed project would not cause a substantial increase in the number of vehicle trips on local roadways, highways, and freeways.

All construction activities would be performed by the SMY staff and no additional staff would be required for further operations of the SMY. Therefore, the proposed project would not generate any traffic beyond that presently associated with SMY. In addition, the proposed project would not conflict with an applicable plan, ordinance, or policy that establishes measures of effectiveness of the performance of the circulation system, including Sutter County General Plan policy M 2.5, the Caltrans TRC for Highway 20, or the MTP/SCS. This impact would be less than significant.

Project operations would be occasional and infrequent during flood fighting events. As the project does not propose to add any new operations, there would be no new operational traffic impacts. This impact would be less than significant.

**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?**

*Less-than-Significant Impact.* As mentioned under question 3.16.2(a) above, the increased traffic resulting from project construction would be short-term and temporary. It is estimated that construction-related truck trips could reach a total of around 37 round trips over an approximately 4-month period. All construction activities would be performed by the SMY staff and no additional staff would be required for continued operations of the SMY. The proposed project would not generate any traffic beyond that presently associated with SMY. Therefore, the proposed project would not add sufficient trips to degrade levels of service and would not conflict with an applicable congestion management program. This impact would be less than significant.

**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 nearest public airport, the Yuba County Airport, is located approximately 10 miles southeast of the project site. The proposed project would not interfere with air traffic patterns. No impact would occur.

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

*No Impact.* The proposed project would not include any change to roadway design in the project vicinity or introduce incompatible uses. No impact would occur.

**e) Result in inadequate emergency access?**

*No Impact.* Implementation of the proposed project would not require any road or lane closures. The proposed project would not impair or interfere with emergency access to the existing SMY, Highway 20, or local roads. Therefore, the proposed project would not result in traffic delays that could substantially increase emergency response times or reduce emergency vehicle access. No impact would occur.

**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.* No public transit, bicycle, or pedestrian facilities are provided in the vicinity of the project site. Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, nor would it otherwise decrease the performance of such facilities. No impact would occur.

### 3.17 UTILITIES AND SERVICE SYSTEMS

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

#### 3.17.1 ENVIRONMENTAL SETTING

The project site is not served by any public water supply system or municipal wastewater collection and treatment systems.

Construction and demolition debris service for builders and contractors in Sutter County is provided by Recology Yuba-Sutter (Yuba Sutter Recycles 2014). Construction and demolition debris is sorted on a special sorting line at Recology Yuba-Sutter's Marysville Material Recovery Facility and Transfer Station to recover recyclable materials. The transfer station has a maximum permitted throughput of 1,080 tons per day (tpd) (CalRecycle 2013a).

Non-recyclable materials are disposed of at the Ostrom Road Landfill, which is located at 5900 Ostrom Road in the City of Wheatland. Ostrom Road Landfill is owned and operated by Recology and provides solid waste disposal services to both municipal and commercial customers in the northern Sacramento Valley, including Yuba, Sutter, Butte, Nevada, and Colusa Counties. According to CalRecycle (formerly the California Integrated Waste Management Board), it has a maximum permitted throughput of 3,000 tpd and has a total maximum

permitted capacity of 41.8 million cubic yards. The Ostrom Road Landfill has a remaining capacity of approximately 39.2 million cubic yards and an anticipated closure date of December 31, 2066 (CalRecycle 2013b). With implementation of the Green Building Code, which requires the reduction of construction waste and demolition debris by 50%, the life of the Ostrom Road Landfill will likely be extended beyond 2066.

### 3.17.2 DISCUSSION

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

*No Impact.* The proposed project would not result in the need for wastewater service. In addition, the proposed project would not include any new development that would require wastewater treatment. Therefore, the proposed project would not result in wastewater discharges that exceed the Central Valley Regional Water Quality Control Board's requirements. No impact would occur.

**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 would not include any new development that would require water treatment. As discussed under question 3.17.2(a) above, the proposed project would not require wastewater service. Therefore, expansion of existing or construction of new water or wastewater facilities would not be required and no impact would occur.

**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 would not create or contribute runoff that would exceed the capacity of stormwater drainage systems, because no such systems are present in the project vicinity. Furthermore, the proposed project does not entail the construction of new impervious surfaces or other development that would require new stormwater drainage facilities or expansion of existing facilities. No impact would occur.

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

*No Impact.* No new water supplies are required for the proposed project. In addition, the proposed project would not include any new development that would require public water supplies. Therefore, no new or expanded water supply entitlements would be needed. No impact would occur.

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

*No Impact.* As discussed under questions 3.17.2(a) and (b) above, the proposed project would not generate any wastewater. Therefore, the proposed project would not exceed a wastewater treatment provider's capacity and no impact would occur.

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

*Less-than-Significant Impact.* Implementation of the proposed project would generate temporary and short-term debris and waste during construction. As described in Chapter 2, "Project Description," the existing irrigation equipment would be removed and the walnut orchard would be uprooted and chipped into mulch on-site. Debris and waste would be off-hauled to the Marysville Material Recovery Facility and Transfer Station to recover recyclable materials.

Non-recyclable materials would be disposed of at the Ostrom Road Landfill. Because this facility has a total maximum permitted capacity of 41.8 million cubic yards and an expected closure date of 2066, it is anticipated that this facility could accommodate solid waste that could be generated during project activities. Operation of the proposed project would not generate solid waste. This impact would be less than significant.

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

*No Impact.* As discussed under question 3.17.2(f) above, solid waste generated during construction activities off-hauled to the Marysville Material Recovery Facility and Transfer Station to recover recyclable materials and non-recyclable materials would be disposed of at the Ostrom Road Landfill. Transportation and disposal would be in accordance with all applicable federal, state, and local statutes and regulations. No impact would occur.

### 3.18 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Authority: Public Resources Code Sections 21083, 21083.5.  
Reference: Government Code Sections 65088.4.  
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

#### 3.18.1 DISCUSSION

- a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

*Less than Significant with Mitigation Incorporated.* The analysis conducted in this IS concludes that implementing the proposed project would not have a significant impact on the environment with the incorporation of mitigation. As evaluated in Section 3.4, “Biological Resources,” impacts on biological resources would be less than significant with the incorporation of mitigation. As a result, implementing the proposed project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of an endangered, rare, or threatened species.

As discussed in Section 3.5, “Cultural Resources,” implementing the proposed project would not eliminate important examples of the major periods of California history or prehistory, and impacts on cultural resources would be less than significant with incorporation of the mitigation measures presented in Section 3.5.

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

*Less-than-Significant Impact.* Project activities would almost exclusively result in short-term, temporary impacts that would mainly be limited to the project site.

As discussed in this IS, implementing the proposed project would result in less-than-significant impacts or no impacts on aesthetics, agriculture and forestry resources, air quality, GHG emissions, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, and utilities and service systems, and the proposed project would not make a cumulatively considerable incremental contribution to any significant cumulative adverse impacts on these resource areas.

The proposed project’s impacts on biological resources, cultural resources, hydrology and water quality, and noise would be mitigated to less than significant. For this reason, implementing the proposed project also would not make a cumulatively considerable incremental contribution to any significant cumulative adverse impact on these areas.

The analysis in this IS has determined that implementing the proposed project would not make a cumulatively considerable incremental contribution to any significant cumulative impacts for any resources affected by past, current, or probable future projects in the project vicinity.

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

*Less-than-Significant Impact.* As discussed above, the proposed project activities would result in less-than-significant impacts with mitigation and would not cause substantial adverse effects on human beings, either directly or indirectly. Mitigation measures are provided to reduce the project’s potential significant effects on biological resources, cultural resources, hydrology and water quality, and noise to less-than-significant levels. Thus, implementation of the proposed project would result in less-than-significant impacts and would not cause substantial adverse effects on human beings, either directly or indirectly.

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\_\_\_\_\_. 2013b. Solid Waste Information System. Facility/Site Summary Details: Recology Ostrom Road LF Inc. (58-AA-0011). Available <http://www.calrecycle.ca.gov/SWFacilities/Directory/58-AA-0011/Detail/>. Accessed May 5, 2014.

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#### **4.3.18 SECTION 3.18, “MANDATORY FINDINGS OF SIGNIFICANCE”**

No references cited.

# 5 REPORT PREPARERS

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Population and Housing, Utilities and Service Systems, Transportation and Traffic

George Lu ..... Air Quality, Greenhouse Gas Emissions

Mohammad Issa Mahmodi ..... Noise

Jesse Martinez ..... Cultural Resources

Stephanie Rasmussen ..... Hazards and Hazardous Materials, Mandatory Findings of Significance

Susan Sanders ..... Biological Resources Technical Review

Julie Nichols ..... Editor

Brian Perry ..... Graphics

Phi Ngo ..... Geographic Information Systems

Charisse Case ..... Document Specialist

Kristine Olsen ..... Document Specialist

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# **APPENDIX A**

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## Air Quality and Greenhouse Gas Emission Calculations



## DWR Sutter Maintenance Yard

### Sutter County, Winter

## 1.0 Project Characteristics

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### 1.1 Land Usage

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	61
<b>Climate Zone</b>	3			<b>Operational Year</b>	2014
<b>Utility Company</b>					
<b>CO2 Intensity (lb/MWhr)</b>	0	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Trips and VMT - On-road sources quantified off-model using EMFAC2011 2013 upgrade

Demolition - Measured 2 homes to be demolished from Google Earth

Grading - PD

Construction Off-road Equipment Mitigation - FRAQMD requirements

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	PhaseStartDate	7/26/2014	7/28/2014
tblConstructionPhase	PhaseStartDate	8/9/2014	8/11/2014
tblGrading	AcresOfGrading	7.50	9.80
tblGrading	AcresOfGrading	45.00	1.00
tblGrading	MaterialImported	0.00	500.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

## 2.0 Emissions Summary

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### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Remove Orchard	Site Preparation	7/14/2014	7/25/2014	5	10	
2	Grading	Grading	7/28/2014	8/8/2014	5	10	
3	All Weather Access	Grading	8/11/2014	10/31/2014	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Remove Orchard	Tractors/Loaders/Backhoes	1	8.00	75	0.37
Grading	Scrapers	1	6.00	356	0.48
Grading	Tractors/Loaders/Backhoes	1	6.00	75	0.37
All Weather Access	Scrapers	1	6.00	356	0.48
All Weather Access	Tractors/Loaders/Backhoes	1	6.00	75	0.37

#### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Remove Orchard	1	3.00		0.00	10.80	7.30				
Grading	2	5.00		0.00	10.80	7.30				
All Weather Access	2	5.00		63.00	10.80	7.30				

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2849	2.7314	1.8732	2.4100e-003		0.2146	0.2146		0.1974	0.1974		255.9781	255.9781	0.0756		257.5667
<b>Total</b>	<b>0.2849</b>	<b>2.7314</b>	<b>1.8732</b>	<b>2.4100e-003</b>	<b>0.0000</b>	<b>0.2146</b>	<b>0.2146</b>	<b>0.0000</b>	<b>0.1974</b>	<b>0.1974</b>		<b>255.9781</b>	<b>255.9781</b>	<b>0.0756</b>		<b>257.5667</b>

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0214	0.0000	0.0214	5.2600e-003	0.0000	5.2600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0214</b>	<b>0.0000</b>	<b>0.0214</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>5.2600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0587	1.3410	1.8109	2.4100e-003		0.0940	0.0940		0.0940	0.0940	0.0000	255.9781	255.9781	0.0756		257.5667
<b>Total</b>	<b>0.0587</b>	<b>1.3410</b>	<b>1.8109</b>	<b>2.4100e-003</b>	<b>0.0000</b>	<b>0.0940</b>	<b>0.0940</b>	<b>0.0000</b>	<b>0.0940</b>	<b>0.0940</b>	<b>0.0000</b>	<b>255.9781</b>	<b>255.9781</b>	<b>0.0756</b>		<b>257.5667</b>

### 3.2 Remove Orchard - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0214	0.0000	0.0214	5.2600e-003	0.0000	5.2600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0214</b>	<b>0.0000</b>	<b>0.0214</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>5.2600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

### 3.3 Grading - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0393	0.0000	1.0393	0.1122	0.0000	0.1122			0.0000			0.0000
Off-Road	1.2958	16.1373	10.2163	0.0128		0.7292	0.7292		0.6709	0.6709		1,361.4029	1,361.4029	0.4023		1,369.8514
<b>Total</b>	<b>1.2958</b>	<b>16.1373</b>	<b>10.2163</b>	<b>0.0128</b>	<b>1.0393</b>	<b>0.7292</b>	<b>1.7685</b>	<b>0.1122</b>	<b>0.6709</b>	<b>0.7831</b>		<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8514</b>

### 3.3 Grading - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4677	0.0000	0.4677	0.0505	0.0000	0.0505			0.0000			0.0000
Off-Road	0.3153	6.2498	7.2351	0.0128		0.2694	0.2694		0.2694	0.2694	0.0000	1,361.4029	1,361.4029	0.4023		1,369.8513
<b>Total</b>	<b>0.3153</b>	<b>6.2498</b>	<b>7.2351</b>	<b>0.0128</b>	<b>0.4677</b>	<b>0.2694</b>	<b>0.7371</b>	<b>0.0505</b>	<b>0.2694</b>	<b>0.3199</b>	<b>0.0000</b>	<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8513</b>

### 3.3 Grading - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

### 3.4 All Weather Access - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0186	0.0000	0.0186	2.0500e-003	0.0000	2.0500e-003			0.0000			0.0000
Off-Road	1.2958	16.1373	10.2163	0.0128		0.7292	0.7292		0.6709	0.6709		1,361.4029	1,361.4029	0.4023		1,369.8514
<b>Total</b>	<b>1.2958</b>	<b>16.1373</b>	<b>10.2163</b>	<b>0.0128</b>	<b>0.0186</b>	<b>0.7292</b>	<b>0.7478</b>	<b>2.0500e-003</b>	<b>0.6709</b>	<b>0.6729</b>		<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8514</b>

### 3.4 All Weather Access - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.3800e-003	0.0000	8.3800e-003	9.2000e-004	0.0000	9.2000e-004			0.0000			0.0000
Off-Road	0.3153	6.2498	7.2351	0.0128		0.2694	0.2694		0.2694	0.2694	0.0000	1,361.4029	1,361.4029	0.4023		1,369.8513
<b>Total</b>	<b>0.3153</b>	<b>6.2498</b>	<b>7.2351</b>	<b>0.0128</b>	<b>8.3800e-003</b>	<b>0.2694</b>	<b>0.2778</b>	<b>9.2000e-004</b>	<b>0.2694</b>	<b>0.2703</b>	<b>0.0000</b>	<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8513</b>

### 3.4 All Weather Access - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

#### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.370088	0.031085	0.177259	0.169329	0.074290	0.008327	0.033722	0.125641	0.000960	0.000165	0.005620	0.001105	0.002410

**5.0 Energy Detail**

**5.1 Fleet Mix**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>			<b>0.0000</b>

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>			<b>0.0000</b>

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## DWR Sutter Maintenance Yard

### Sutter County, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	61
<b>Climate Zone</b>	3			<b>Operational Year</b>	2014
<b>Utility Company</b>					
<b>CO2 Intensity (lb/MWhr)</b>	0	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Trips and VMT - On-road sources quantified off-model using EMFAC2011 2013 upgrade

Demolition - Measured 2 homes to be demolished from Google Earth

Grading - PD

Construction Off-road Equipment Mitigation - FRAQMD requirements

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	PhaseStartDate	7/26/2014	7/28/2014
tblConstructionPhase	PhaseStartDate	8/9/2014	8/11/2014
tblGrading	AcresOfGrading	7.50	9.80
tblGrading	AcresOfGrading	45.00	1.00
tblGrading	MaterialImported	0.00	500.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

## 2.0 Emissions Summary

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### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Remove Orchard	Site Preparation	7/14/2014	7/25/2014	5	10	
2	Grading	Grading	7/28/2014	8/8/2014	5	10	
3	All Weather Access	Grading	8/11/2014	10/31/2014	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Remove Orchard	Tractors/Loaders/Backhoes	1	8.00	75	0.37
Grading	Scrapers	1	6.00	356	0.48
Grading	Tractors/Loaders/Backhoes	1	6.00	75	0.37
All Weather Access	Scrapers	1	6.00	356	0.48
All Weather Access	Tractors/Loaders/Backhoes	1	6.00	75	0.37

#### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Remove Orchard	1	3.00		0.00	10.80	7.30				
Grading	2	5.00		0.00	10.80	7.30				
All Weather Access	2	5.00		63.00	10.80	7.30				

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.2849	2.7314	1.8732	2.4100e-003		0.2146	0.2146		0.1974	0.1974		255.9781	255.9781	0.0756		257.5667
<b>Total</b>	<b>0.2849</b>	<b>2.7314</b>	<b>1.8732</b>	<b>2.4100e-003</b>	<b>0.0000</b>	<b>0.2146</b>	<b>0.2146</b>	<b>0.0000</b>	<b>0.1974</b>	<b>0.1974</b>		<b>255.9781</b>	<b>255.9781</b>	<b>0.0756</b>		<b>257.5667</b>

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0214	0.0000	0.0214	5.2600e-003	0.0000	5.2600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0214</b>	<b>0.0000</b>	<b>0.0214</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>5.2600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0587	1.3410	1.8109	2.4100e-003		0.0940	0.0940		0.0940	0.0940	0.0000	255.9781	255.9781	0.0756		257.5667
<b>Total</b>	<b>0.0587</b>	<b>1.3410</b>	<b>1.8109</b>	<b>2.4100e-003</b>	<b>0.0000</b>	<b>0.0940</b>	<b>0.0940</b>	<b>0.0000</b>	<b>0.0940</b>	<b>0.0940</b>	<b>0.0000</b>	<b>255.9781</b>	<b>255.9781</b>	<b>0.0756</b>		<b>257.5667</b>

### 3.2 Remove Orchard - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0214	0.0000	0.0214	5.2600e-003	0.0000	5.2600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0214</b>	<b>0.0000</b>	<b>0.0214</b>	<b>5.2600e-003</b>	<b>0.0000</b>	<b>5.2600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

### 3.3 Grading - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0393	0.0000	1.0393	0.1122	0.0000	0.1122			0.0000			0.0000
Off-Road	1.2958	16.1373	10.2163	0.0128		0.7292	0.7292		0.6709	0.6709		1,361.4029	1,361.4029	0.4023		1,369.8514
<b>Total</b>	<b>1.2958</b>	<b>16.1373</b>	<b>10.2163</b>	<b>0.0128</b>	<b>1.0393</b>	<b>0.7292</b>	<b>1.7685</b>	<b>0.1122</b>	<b>0.6709</b>	<b>0.7831</b>		<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8514</b>

### 3.3 Grading - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4677	0.0000	0.4677	0.0505	0.0000	0.0505			0.0000			0.0000
Off-Road	0.3153	6.2498	7.2351	0.0128		0.2694	0.2694		0.2694	0.2694	0.0000	1,361.4029	1,361.4029	0.4023		1,369.8513
<b>Total</b>	<b>0.3153</b>	<b>6.2498</b>	<b>7.2351</b>	<b>0.0128</b>	<b>0.4677</b>	<b>0.2694</b>	<b>0.7371</b>	<b>0.0505</b>	<b>0.2694</b>	<b>0.3199</b>	<b>0.0000</b>	<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8513</b>

**3.3 Grading - 2014****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

**3.4 All Weather Access - 2014****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0186	0.0000	0.0186	2.0500e-003	0.0000	2.0500e-003			0.0000			0.0000
Off-Road	1.2958	16.1373	10.2163	0.0128		0.7292	0.7292		0.6709	0.6709		1,361.4029	1,361.4029	0.4023		1,369.8514
<b>Total</b>	<b>1.2958</b>	<b>16.1373</b>	<b>10.2163</b>	<b>0.0128</b>	<b>0.0186</b>	<b>0.7292</b>	<b>0.7478</b>	<b>2.0500e-003</b>	<b>0.6709</b>	<b>0.6729</b>		<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8514</b>

**3.4 All Weather Access - 2014****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.3800e-003	0.0000	8.3800e-003	9.2000e-004	0.0000	9.2000e-004			0.0000			0.0000
Off-Road	0.3153	6.2498	7.2351	0.0128		0.2694	0.2694		0.2694	0.2694	0.0000	1,361.4029	1,361.4029	0.4023		1,369.8513
<b>Total</b>	<b>0.3153</b>	<b>6.2498</b>	<b>7.2351</b>	<b>0.0128</b>	<b>8.3800e-003</b>	<b>0.2694</b>	<b>0.2778</b>	<b>9.2000e-004</b>	<b>0.2694</b>	<b>0.2703</b>	<b>0.0000</b>	<b>1,361.4029</b>	<b>1,361.4029</b>	<b>0.4023</b>		<b>1,369.8513</b>

### 3.4 All Weather Access - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0357	0.0000	0.0357	8.7600e-003	0.0000	8.7600e-003			0.0000			0.0000
<b>Total</b>					<b>0.0357</b>	<b>0.0000</b>	<b>0.0357</b>	<b>8.7600e-003</b>	<b>0.0000</b>	<b>8.7600e-003</b>			<b>0.0000</b>			<b>0.0000</b>

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

#### 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.370088	0.031085	0.177259	0.169329	0.074290	0.008327	0.033722	0.125641	0.000960	0.000165	0.005620	0.001105	0.002410

**5.0 Energy Detail**

**5.1 Fleet Mix**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

### 6.2 Area by SubCategory

#### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>				<b>0.0000</b>

#### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	lb/day										lb/day						
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>			<b>0.0000</b>				<b>0.0000</b>

### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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## DWR Sutter Maintenance Yard

### Sutter County, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	61
<b>Climate Zone</b>	3			<b>Operational Year</b>	2014
<b>Utility Company</b>					
<b>CO2 Intensity (lb/MWhr)</b>	0	<b>CH4 Intensity (lb/MWhr)</b>	0	<b>N2O Intensity (lb/MWhr)</b>	0

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Off-road Equipment - PD

Trips and VMT - On-road sources quantified off-model using EMFAC2011 2013 upgrade

Demolition - Measured 2 homes to be demolished from Google Earth

Grading - PD

Construction Off-road Equipment Mitigation - FRAQMD requirements

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	NumDays	0.00	10.00
tblConstructionPhase	PhaseStartDate	7/26/2014	7/28/2014
tblConstructionPhase	PhaseStartDate	8/9/2014	8/11/2014
tblGrading	AcresOfGrading	7.50	9.80
tblGrading	AcresOfGrading	45.00	1.00
tblGrading	MaterialImported	0.00	500.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	97.00	75.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	HorsePower	361.00	356.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

## 2.0 Emissions Summary

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### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Remove Orchard	Site Preparation	7/14/2014	7/25/2014	5	10	
2	Grading	Grading	7/28/2014	8/8/2014	5	10	
3	All Weather Access	Grading	8/11/2014	10/31/2014	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 9.8

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Remove Orchard	Tractors/Loaders/Backhoes	1	8.00	75	0.37
Grading	Scrapers	1	6.00	356	0.48
Grading	Tractors/Loaders/Backhoes	1	6.00	75	0.37
All Weather Access	Scrapers	1	6.00	356	0.48
All Weather Access	Tractors/Loaders/Backhoes	1	6.00	75	0.37

#### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Remove Orchard	1	3.00		0.00	10.80	7.30				
Grading	2	5.00		0.00	10.80	7.30				
All Weather Access	2	5.00		63.00	10.80	7.30				

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	0.0137	9.3700e-003	1.0000e-005		1.0700e-003	1.0700e-003		9.9000e-004	9.9000e-004	0.0000	1.1611	1.1611	3.4000e-004	0.0000	1.1683
<b>Total</b>	<b>1.4200e-003</b>	<b>0.0137</b>	<b>9.3700e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>9.9000e-004</b>	<b>9.9000e-004</b>	<b>0.0000</b>	<b>1.1611</b>	<b>1.1611</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1683</b>

### 3.2 Remove Orchard - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	6.7100e-003	9.0500e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.1611	1.1611	3.4000e-004	0.0000	1.1683
<b>Total</b>	<b>2.9000e-004</b>	<b>6.7100e-003</b>	<b>9.0500e-003</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>4.7000e-004</b>	<b>4.7000e-004</b>	<b>0.0000</b>	<b>1.1611</b>	<b>1.1611</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.1683</b>

**3.2 Remove Orchard - 2014****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>1.0000e-004</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**3.3 Grading - 2014****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.2000e-003	0.0000	5.2000e-003	5.6000e-004	0.0000	5.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4800e-003	0.0807	0.0511	6.0000e-005		3.6500e-003	3.6500e-003		3.3500e-003	3.3500e-003	0.0000	6.1752	6.1752	1.8200e-003	0.0000	6.2135
<b>Total</b>	<b>6.4800e-003</b>	<b>0.0807</b>	<b>0.0511</b>	<b>6.0000e-005</b>	<b>5.2000e-003</b>	<b>3.6500e-003</b>	<b>8.8500e-003</b>	<b>5.6000e-004</b>	<b>3.3500e-003</b>	<b>3.9100e-003</b>	<b>0.0000</b>	<b>6.1752</b>	<b>6.1752</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>6.2135</b>

### 3.3 Grading - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3400e-003	0.0000	2.3400e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5800e-003	0.0313	0.0362	6.0000e-005		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	6.1752	6.1752	1.8200e-003	0.0000	6.2135
<b>Total</b>	<b>1.5800e-003</b>	<b>0.0313</b>	<b>0.0362</b>	<b>6.0000e-005</b>	<b>2.3400e-003</b>	<b>1.3500e-003</b>	<b>3.6900e-003</b>	<b>2.5000e-004</b>	<b>1.3500e-003</b>	<b>1.6000e-003</b>	<b>0.0000</b>	<b>6.1752</b>	<b>6.1752</b>	<b>1.8200e-003</b>	<b>0.0000</b>	<b>6.2135</b>

### 3.3 Grading - 2014

#### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.7000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.7000e-004</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

### 3.4 All Weather Access - 2014

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.6000e-004	0.0000	5.6000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4841	0.3065	3.8000e-004		0.0219	0.0219		0.0201	0.0201	0.0000	37.0513	37.0513	0.0110	0.0000	37.2813
<b>Total</b>	<b>0.0389</b>	<b>0.4841</b>	<b>0.3065</b>	<b>3.8000e-004</b>	<b>5.6000e-004</b>	<b>0.0219</b>	<b>0.0224</b>	<b>6.0000e-005</b>	<b>0.0201</b>	<b>0.0202</b>	<b>0.0000</b>	<b>37.0513</b>	<b>37.0513</b>	<b>0.0110</b>	<b>0.0000</b>	<b>37.2813</b>

### 3.4 All Weather Access - 2014

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					1.0300e-003	0.0000	1.0300e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>					<b>1.0300e-003</b>	<b>0.0000</b>	<b>1.0300e-003</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5000e-004	0.0000	2.5000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4600e-003	0.1875	0.2171	3.8000e-004		8.0800e-003	8.0800e-003		8.0800e-003	8.0800e-003	0.0000	37.0513	37.0513	0.0110	0.0000	37.2812
<b>Total</b>	<b>9.4600e-003</b>	<b>0.1875</b>	<b>0.2171</b>	<b>3.8000e-004</b>	<b>2.5000e-004</b>	<b>8.0800e-003</b>	<b>8.3300e-003</b>	<b>3.0000e-005</b>	<b>8.0800e-003</b>	<b>8.1100e-003</b>	<b>0.0000</b>	<b>37.0513</b>	<b>37.0513</b>	<b>0.0110</b>	<b>0.0000</b>	<b>37.2812</b>





## 6.2 Area by SubCategory

### Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>							

### Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>					<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>							

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

## 9.0 Operational Offroad

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

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**DWR Sutter Maintenance Yard  
Construction Assumptions and Emissions**

<b>Construction Start Date</b>	2014
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Phases/Equipment	Start Date	End Date	Work Days	Number	Hours/Day	Horsepower	Load Factor
<b>Removal of Orchard</b>	7/14/2014	7/25/2014	10				
Backhoe				1	8	75	0.3685
<b>Grading</b>	7/28/2014	8/8/2014	10				
Scraper				1	6	356	0.4824
Skip Loader				1	6	75	0.3685
<b>All Weather Access</b>	8/11/2014	10/31/2014	60				
Scraper				1	6	356	0.4824
Skip Loader				1	6	75	0.3685

Construction Phase/Sources	Pollutants (lbs/day)				Annual Metric Tons
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e
<b>Removal of Orchard</b>	<b>0.30</b>	<b>2.84</b>	<b>0.23</b>	<b>0.21</b>	<b>2</b>
Construction Equipment	0.2849	2.7314	0.2146	0.1974	1
Construction Workers	0.02	0.11	0.02	0.01	0
<b>Grading</b>	<b>1.31</b>	<b>16.25</b>	<b>1.78</b>	<b>0.79</b>	<b>7</b>
Construction Equipment	1.2958	16.1373	1.7685	0.7831	6
Construction Workers	0.02	0.11	0.02	0.01	0
<b>All Weather Access</b>	<b>1.35</b>	<b>17.45</b>	<b>0.79</b>	<b>0.70</b>	<b>45</b>
Construction Equipment	1.2958	16.1373	0.7478	0.6729	37
Construction Workers	0.02	0.11	0.02	0.01	2
Haul Trucks (Rock Import)	0.01	0.28	0.01	0.00	1
Haul Trucks (Materials)	0.03	0.92	0.02	0.02	4
<b>Maximum Daily</b>	<b>1.35</b>	<b>17.45</b>	<b>1.78</b>	<b>0.79</b>	-
<b>Total Emissions</b>	-	-	-	-	<b>54</b>

Note: Assumes each phase has an average of 5 construction workers per day (10.8 mi/trip).

**On-Road Emission Factors**

Vehicle Type	Pollutants (grams/mile)				
	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>
Construction Workers (LDA-LDT)	0.08	0.45	0.07	0.04	354.60
Haul Trucks (HHDT)	0.28	10.48	0.25	0.18	1,739.44

# 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.

California Department of Water Resources  
1416 9th Street  
Sacramento, CA 95814  
[dwrclimatechange.water.ca.gov](http://dwrclimatechange.water.ca.gov)  
[www.water.ca.gov/climatechange](http://www.water.ca.gov/climatechange)

Additional Guidance on filling out this form can be found at:  
[dwrclimatechange.water.ca.gov/guidance\\_resources.cfm](http://dwrclimatechange.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>

<b>Project Name:</b>	Sutter Maintenance Yard Expansion Project
<b>Environmental Document type:</b>	Initial Study/Mitigated Negative Declaration
<b>Manager's Name:</b>	Shelly Amrhein
<b>Manager's email:</b>	rochelle.amrhein@water.ca.gov
<b>Division:</b>	Division of Flood Management
<b>Office, Branch, or Field Division</b>	Flood Maintenance Office

**Short Project Description:**

DWR's Division of Flood Management proposes to expand the existing Sutter Maintenance Yard (SMY) facility by 9.8 acres (in a location adjacent to the SMY) for storage of equipment and materials needed for flood maintenance and emergency response. An immature walnut orchard on the project site would be uprooted and chipped into mulch on-site. The project site would be graded to allow for proper drainage and the perimeter of the project site would be fenced with a 6-foot-high chain link fence to match the existing SMY facility. The existing chain link fence that separates the properties would be removed to combine the properties. An all-weather access made up of approximately 500 cubic yards of ¾-inch aggregate base would be placed around a metal building that would be left on the project site. The access would incorporate a parking area to the south of the building and access to future storage sites of material and equipment as needed.

**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 Measures not incorporated have been listed and determined not to 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 gases emitted by the project are covered by the plan's analysis.

Project Manager  
Signature:



Date: 5/30/14

C4 Approval  
Signature:



Date: 6/2/14

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