

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Green Valley Road Widening Project City of Folsom, CA

Central California Area Office Folsom, CA



**U.S. Department of the Interior
Bureau of Reclamation
Mid Pacific Region
Central California Area Office
Folsom, California**

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Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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List of Acronyms and Abbreviations

AB	Assembly Bill
APE	Area of Potential Effect
BA	Biological Assessment
BMP	Best Management Practices
BO	Biological Opinion
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CAA	Clean Air Act
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
City	City of Folsom
cmp	corrugated metal pipe
CO	Carbon Monoxide
County	El Dorado County
CWA	Clean Water Act
DBH	Diameter at Breast Height
DOT	Department of Transportation
DPS	Distinct Population Segment
DWR	Department of Water Resources
EA	Environmental Assessment
EDCAQMD	El Dorado County Air Quality Management District
EIS/EIR	Environmental Impact Statement/Environmental Impact Review
EO	Executive Order
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FLSRA	Folsom Lake State Recreation Area
GHG	Greenhouse Gases
GP/RMP	General Plan/Resource Management Plan
ITA	Indian Trust Assets
LOS	Level of Service
MIAD	Mormon Island Auxiliary Dam
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
NES	Natural Environment Study
NHPA	National Historic Preservation Act
NOA	Naturally Occurring Asbestos
NOx	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O&M	Operation and Maintenance

PA	Proposed Action
rcp	reinforced concrete pipe
Reclamation	U.S. Bureau of Reclamation
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
Service	U.S. Fish and Wildlife Service
SHPO	California State Historic Preservation Officer
SIP	State Implementation Plans
SMAQMD	Sacramento Metropolitan Air Quality Management District
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
VELB	Valley Elderberry Longhorn Beetle
VOC	Volatile Organic Compound

Section 1 Introduction

In conformance with the National Environmental Policy Act of 1969 (NEPA), as amended, Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508), and Department of the Interior regulations (43 CFR Part 46), the Bureau of Reclamation has prepared this Environmental Assessment (EA) to evaluate and disclose any potential direct, indirect, and cumulative environmental impacts to the affected environment associated with Green Valley Road Widening Project activities. The project is located between the City of Folsom (City) within Sacramento County and the City of El Dorado Hills within El Dorado County (County) (Figure 1).

The City, in cooperation with the California Department of Transportation (Caltrans), County, and Reclamation, proposes to widen Green Valley Road from two lanes to four lanes with left turn channelization between East Natoma Street and Sophia Parkway. The widening would occur from 0.15 mile northwest of East Natoma Street to 0.06 mile west of Sophia Parkway and totals approximately 1.2 miles in length. The portions of Green Valley Road on either end of this segment have already been widened to four lanes with a Class II¹ bicycle facility in each direction. This Proposed Action (PA) involves the execution of a temporary construction permit to the City to commence road construction activities on Reclamation lands prior to the issuance of a perpetual easement document. Upon execution of the perpetual easement, the temporary construction permit would terminate. The perpetual easement would grant the City the right to continue roadway Operations and Maintenance (O&M) activities. Reclamation and the County would also provide technical assistance to the City on project design. The County would provide an encroachment permit to the City for construction within the County limits.

The PA would also include drainage improvements along Green Valley Road and along the Humbug-Willow Creek Trail to reduce the risks of flooding of Green Valley Road, as defined by the project reach, during storm events.

The total estimated cost to implement the PA is 3,600,000 dollars. The Project is funded through the Regional Improvement Program with local funding contributions from the Regional Surface Transportation Program and other Locally Generated funds.

1.1 Project Background

Green Valley Road is a two-lane, southwest-northeast arterial road that extends from the City to the City of Placerville (Figure 2). Along with Folsom-Auburn Road, Folsom Lake Crossing, and East Natoma Street, it feeds traffic into the easternmost river crossing in Sacramento County, linking Placer and El Dorado Counties. Green Valley Road is the only route providing parallel capacity to US 50 between the City and County for a distance of approximately 20 miles. It is a

¹ Class II bike lanes are any portion of roadway designated for bicycle use and defined by pavement marking, curbs, signs, or other traffic-control devices (City of Folsom 2007).

critical route for commuting and as a detour when incidents close down US 50 between the City and the City of Placerville.

The ultimate design for Green Valley Road is a four lane facility along its entire length. It currently tapers to two lanes approximately 700 feet east of the East Natoma Street intersection and 900 feet west of the Sophia Parkway intersection.

1.2 Need for Action

The primary objectives for the PA are as follows:

- Execute a temporary construction permit and perpetual easement between Reclamation and the City.
- Widen Green Valley Road to match the 4-lane width with standard shoulders sufficient for a Class II bicycle facility within the PA area,
- Increase capacity to accommodate growth in future traffic,
- Provide a facility consistent with the City's General Plan, and
- Reduce the risks of flooding of the roadway by improving drainage along Green Valley Road and the Humbug-Willow Creek Trail.

The PA involves the execution of a temporary construction permit for the City to commence construction activities on Reclamation lands and a perpetual easement. Upon execution of the perpetual easement, the temporary construction permit would terminate. The perpetual easement would grant the City the right to continue roadway O&M activities.

The PA is needed as a gap closure project to complete the road widening and to connect existing segments of Class II bicycle lanes, which is consistent with the City's General Plan (City of Folsom 1993). The PA would also alleviate current commuter traffic as well as serve future developments in nearby El Dorado Hills.

Additionally, the PA would replace a damaged siphon under Green Valley Road with an open-bottom box culvert. The siphon replacement would improve drainage of the roadway and surrounding area and reduce the risk of roadway flooding.

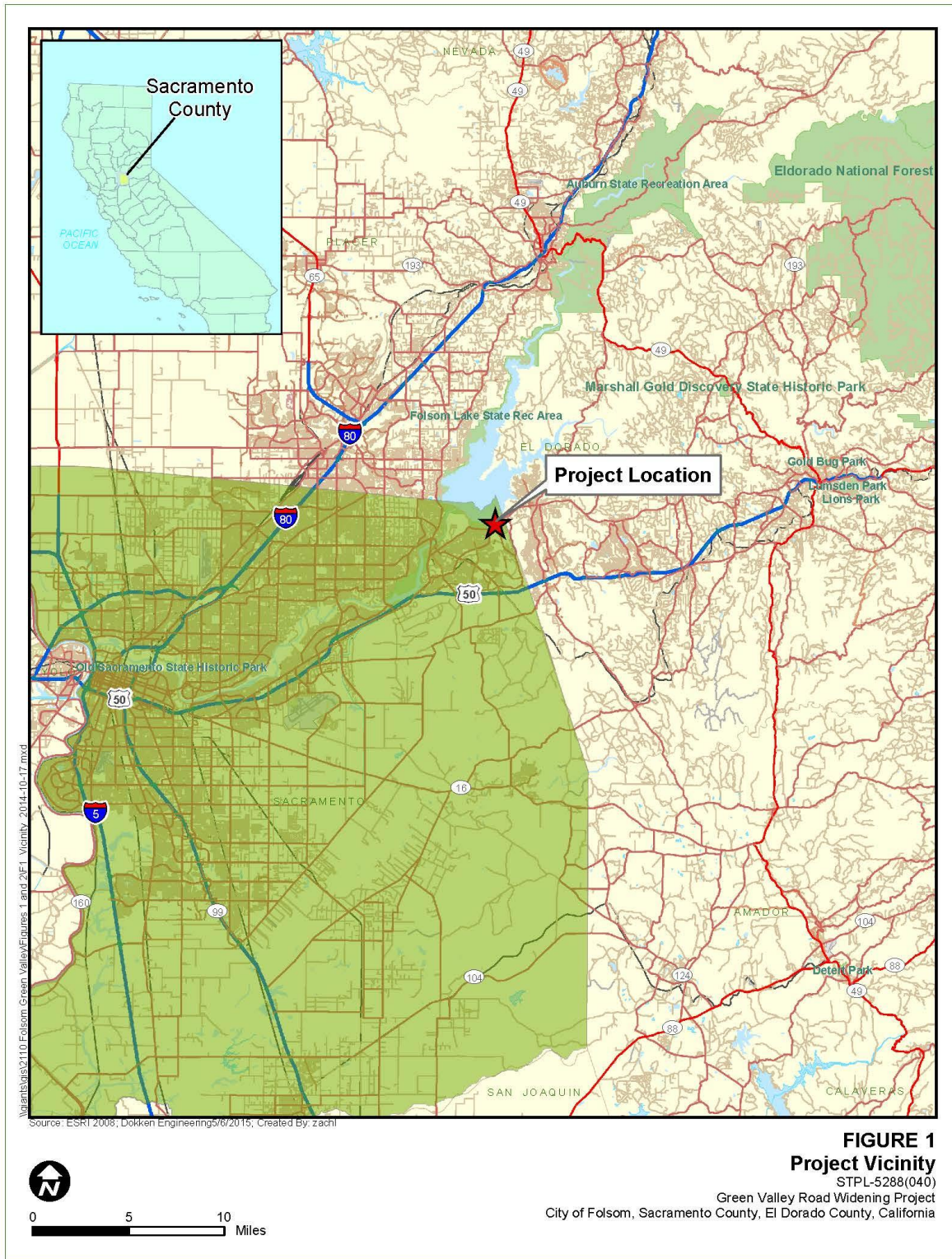


Figure 1: Project Vicinity

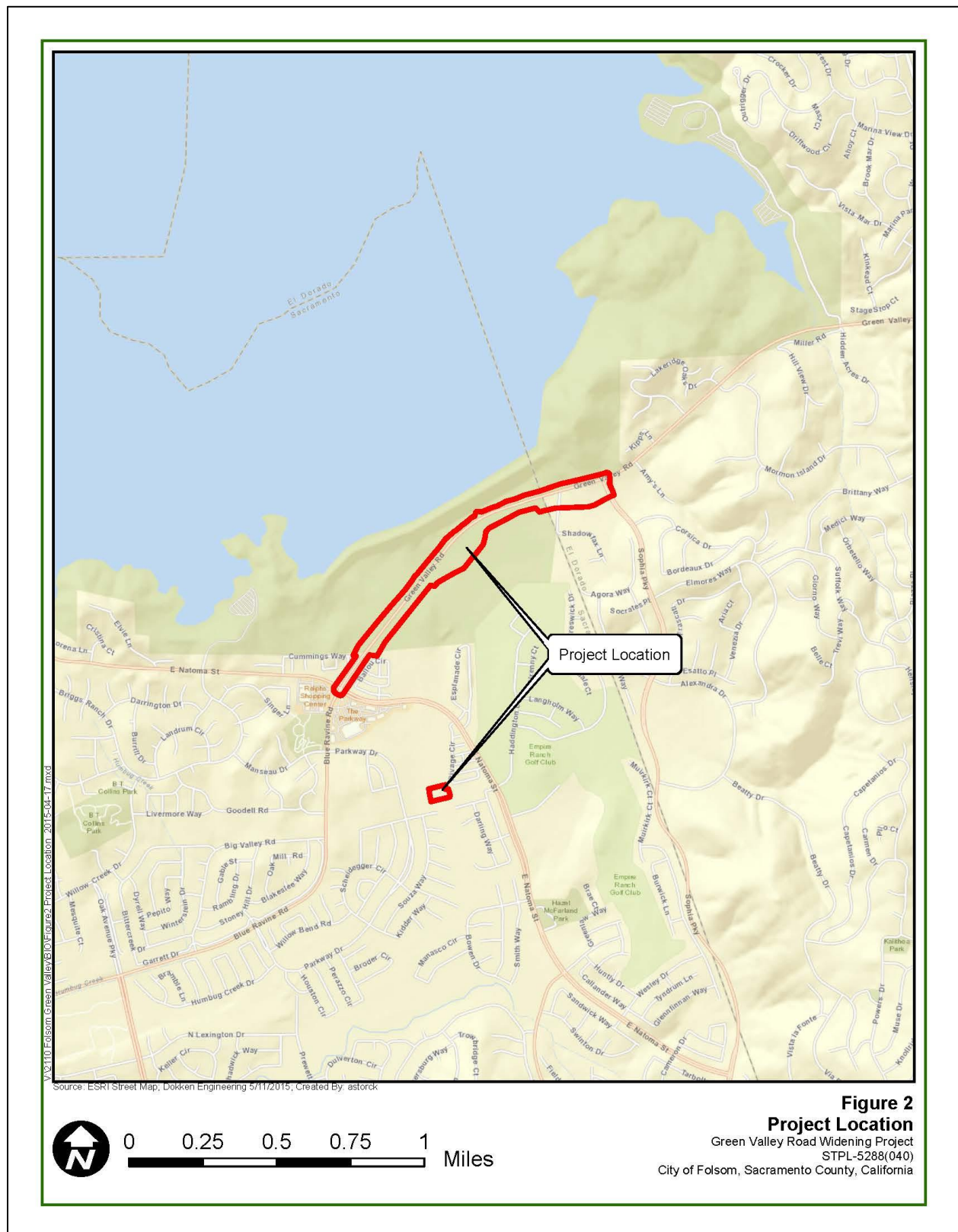


Figure 2: Project Location

Section 2 Alternatives Including the Proposed Action

This EA considers two possible actions: the No Action Alternative and the PA. The No Action Alternative reflects future conditions without the PA and serves as a basis of comparison for determining potential effects to the human environment.

2.1 No Action Alternative

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. This alternative does not meet the City's goal of widening the road and/or repairing the damaged siphon. Widening of the roadway would not be completed and congestion would increase along this segment of roadway.

2.2 Proposed Action

Reclamation would first issue a temporary construction permit for the City to begin construction activities. The City would then proceed with the widening of the existing two lane segment of Green Valley Road between East Natoma Street and Sophia Parkway to provide four lane width with standard shoulders sufficient for a Class II bicycle facility on Green Valley Road (Figure 3). During the temporary construction permit term, Reclamation would finalize and issue the City a perpetual easement for the as-built 80 feet of right-of-way of Green Valley Road to continue roadway O&M activities. The temporary construction permit would terminate upon execution of the perpetual easement. Proposed roadway dimensions include 12 foot-wide through lanes, an 11 foot-wide dual left turn lane, and 8 foot-wide standard shoulders/Class II bike lanes. These widths add up to 75 feet leaving 5 feet for a public utility easement on the north side of the road.

The PA would also improve the Shadowfax Lane intersection; improve the permanent Reclamation driveways along the roadway corridor; replace the siphon along the curve of Green Valley Road; update roadway drainage, and enhance seven existing culverts to maintain drainage conductivity to be compliant with the City's, County's, and Reclamation's standards; and install an additional drainage pipe through an existing berm located south of Green Valley Road at the intersection of the berm with the Humbug-Willow Creek Trail. Property access and vehicle turning movements would also be enhanced as a component of the PA.

The PA includes widening Green Valley Road at the Shadowfax Lane intersection and adding a northbound right lane turn pocket to allow vehicles to safely deaccelerate before turning without causing delays on Green Valley Road; widening two Reclamation driveways and paving with asphalt; and replacing the existing 24 inch diameter corrugated metal pipe (cmp) siphon beneath Green Valley Road with one 4 feet by 3 feet open-bottom box culvert to provide better drainage and water flow to the Mormon Island Wetlands Natural Preserve wetlands. The siphon was originally installed in the 1950s during construction of the Green Valley Road alignment and has

been an ongoing maintenance issue for the City. Sediment settles in the bottom of the siphon culvert and reduces the capacity of the pipe. Additional culvert enhancements include: replacement of one existing 24 inch diameter cmp with one 24 inch diameter high-density polyethylene pipe; replacement of one existing 18 inch diameter cmp with one 14 inch by 23 inch elliptical reinforced concrete pipe (rcp); extension of one existing 24 inch diameter pipe by attaching one 24 inch high density polyethylene pipe extension culvert using a concrete collar; and replacement of four existing 18 inch cmp culverts with a total of two 14 inch by 23 inch elliptical rcp. Rock slope protection will be included for each culvert replacement. The PA would also enhance the existing Reclamation O&M staging area, which is adjacent to, but just outside the western boundary of the Mormon Island Wetlands Natural Preserve. This enhancement would consist of paving and expanding the existing graveled lot to allow parking for 10 vehicles, including an Americans with Disabilities Act compliant vehicle space, and installing gates, a garbage/recycling container, a sign kiosk, interpretive signs and a self-pay station. This enhancement is consistent with the Folsom Lake State Recreation Area (FLSRA) and Folsom Powerhouse State Historic Park General Plan/Resource Management Plan (CA State Parks 2007) and Final Environmental Impact Report/Environmental Impact Statement (EIS/EIR) (Reclamation and CA State Parks 2009).

There are several utilities along Green Valley Road including above ground communication and electrical distribution lines along the northern and western side of Green Valley Road, underground electrical distribution lines, underground natural gas pipelines, underground water pipelines, underground telecoms, and underground sewer pipelines. Utility poles associated with the above ground communication and electrical lines which are located along the northern extent of Green Valley Road are not anticipated to be impacted by the PA.

Minor underground utility adjustments would occur during construction. Electric, gas, sewer, and storm drain utilities exist along Green Valley Road and at the existing residential housing and retail businesses at the south end of the PA area. Additionally, the El Dorado Irrigation District owns an 8-inch polyvinyl chloride drinking water pipeline located beneath Green Valley Road, approximately 360 feet west of the intersection of Green Valley Road and Sophia Parkway. It is located within the portion of Green Valley Road which has been previously widened and would not be impacted by the Project. The PA will follow federal utility relocation policies.

The PA would be staged to allow traffic to remain open in each direction for the duration of construction, except for short-term closures to allow placement and removal of construction barriers (K-Rail). These short-term closures are expected to be 1-day or less. Construction is anticipated to take a total of 9 months.

Additional components of the PA include equipment and material storage/staging areas, installation of approximately 3,010-linear feet of metal beam guardrail (130 feet added to the south side of Green Valley Road and approximately 2,880 feet added to the north side of Green Valley Road), and tree removal by root ball or stump grinding. The measures in Table 1 would be implemented to reduce impacts and provide environmental protection and recreation enhancement within the PA area.



Figure 3: Proposed Action Area

Table 1: Impact Reduction, Environmental Protection, and Recreation Enhancement Measures

Resource	Measure
Water Resources	See Appendix B
Land Use	Enhance the existing Reclamation O&M staging area to provide a paved and gated parking lot south of Green Valley Road within a portion of FLSRA that is not designated as a natural preserve. This enhanced parking area would improve access to and visitor experience at the Mormon Island Wetlands Natural Preserve and would be consistent with the FLSRA General Plan/Resource Management Plan.
Land Use	Install a self-pay station, garbage/recycling container, and sign kiosk with interpretive panel about the wetlands at the parking lot.
Recreation	Prior to start of construction, the impacted segment of Reclamation's O&M access road (Mormon Island Wetlands Trail) located between the Reclamation O&M staging area and Shadowfax Lane, south of Green Valley Road, would be temporarily rerouted to the MIAD Crest Trail. This rerouted segment of the access road would remain open throughout project construction.
Recreation	Upon completion of construction in this area, an access road would be re-established directly south of Green Valley Road between Reclamation's O&M staging area and Shadowfax Lane. This road would be 12 feet wide and would be used by Reclamation staff to access the existing groundwater monitoring wells to continue routine, required monitoring activities. In addition, this road would replace the permanently impacted segment of the current access road footprint. This road would be constructed in a route that avoids impacts to trees and would be surfaced with 0.75 inch gravel. Mowing adjacent to and maintenance of the access road would occur approximately two to three times per year by Reclamation staff to maintain accessibility and manage vegetation. Public access would continue to occur within Reclamation's O&M access road area.
Biological Resources: Natural Communities	Prior to start of construction activities, the PA area limits in proximity to jurisdictional waters and cottonwood/willow riparian areas shall be marked with high visibility fencing to ensure construction would not encroach into these areas. The Project biologist would inspect the fencing daily to ensure sensitive locations remain undisturbed.
Biological Resources: Natural Communities	Construction of the roadway and culverts is anticipated to take place during the dry season. However, should water be present, temporary dewatering would occur prior to construction. The tributary channel and wetland area would be dewatered of standing water by methods determined appropriate by the contractor. Discharged water will be in compliance with all applicable Clean Water Act (CWA) and Central Valley Regional Water Quality Control Board (RWQCB) regulations. The City will submit a dewatering plan to the US Army Corps of Engineers (USACE) and Central Valley RWQCB prior to construction upon request.

Resource	Measure
Biological Resources: Natural Communities	The City would comply with the City's Municipal Code, Chapter 12.16 Tree Preservation. Chapter 12.16 Tree Preservation restricts encroachments within designated 'tree protection zones' for trees meeting the City's definition of a City 'Protected tree'. Tree protection zones shall be established to avoid project impacts to protected trees located along the extent of the project construction footprint. There are approximately 14 protected oak trees which would be removed. The removal of six of these trees requires mitigation. This would be accomplished by mitigating for one tree at a ratio of 8:1 and four trees at a ratio of 15:1, based on the City's Tree Removal Mitigation Rate Table which uses diameter at breast height measurements. The oak trees would be planted onsite using 15-gallon trees of the protected tree species. The trees would be irrigated (hand or mechanically) as well as monitored for a duration established by the City's final tree mitigation plan. The remainder of the six oak trees require in-lieu fee mitigation. Using the City's Tree Removal Mitigation Rate Table, the City is responsible for \$9,250.00 of in-lieu fees to fully comply with the Tree Ordinance.
Biological Resources: Natural Communities	To compensate for the spatial and temporal habitat loss of the tree removal, additional on-site mitigation would be required. After coordination with Reclamation and California State Parks, the City determined that approximately 51 trees would be needed to replace the 0.50 acre of mixed valley oak woodland and narrow leaf willow riparian habitat loss along the limits of the enhanced parking lot and O&M access road. This planting number was based on the planting location area, appropriate tree planting distance, and average canopy width. These 51 trees, depending on actual survival rate, would create between 2.5 and 3.35 acres of mixed valley oak woodland and valley foothill riparian edge habitat. This additional acreage consists of an approximate 5:1 or 6:1 ratio, depending on actual survival rate. In order to replace the existing habitat values and functions within the PA area, the following tree species and quantities would be planted on-site: 36 Fremont cottonwood trees, 10 interior live oak trees, and five valley oak trees. The 15 oak trees are previously mentioned above for mitigation of one oak tree at a 15:1 ratio.
Biological Resources: Natural Communities	Special protection measures outlined in the Arborist Report (ABACUS Consulting Arborists 2015) shall be followed to avoid and minimize impacts to trees remaining in place within the PA area.
Biological Resources: Natural Communities	The 51 cottonwood trees would be planted onsite and irrigated (hand or mechanically) as well as monitored for a duration established by the City's final tree mitigation plan. The cottonwood saplings would be sited at least 100 feet away from the proposed parking area and at least 30 feet away from the access road to prevent the potential for limbs falling onto vehicles or pedestrians.

Resource	Measure
Biological Resources: Natural Communities	Final tree mitigation ratios may vary from the City's Municipal Code depending on site conditions and coordination with California State Parks.
Biological Resources: Wetlands and Other Waters	See Appendix C
Biological Resources: Wetlands and Other Waters	Based on the Nationwide Permit verification letter, permanent impacts to 0.45 acres of Waters of the U.S. would be mitigated by the City through purchasing 0.86 credits of Freshwater Emergent Wetland habitat and 0.04 credits of Riparian habitat at Consumnes Floodplain Mitigation Bank. Evidence of this purchase shall be provided to the USACE prior to initiation of construction activities within Waters of the U.S.
Biological Resources: Plant Species	Prior to arrival at the project site and prior to leaving the project site, all equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spreading of noxious weeds. Reclamation's Technical Memorandum Number 86-68220-07-05, <i>Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species</i> (Reclamation 2012) shall be followed.
Biological Resources: Plant Species	Any cleared or grubbed vegetation that consists of nonnative plant species material would be hauled off site and not temporarily or permanently stockpiled or used as backfill in the Mormon Island Wetlands Natural Preserve or in areas adjacent to the Preserve.
Biological Resources: Plant Species	During hydro-seeding of disturbed construction areas and planting mitigation trees within the project area, the project shall not incorporate California Invasive Plant Council (Cal-IPC) invasive species. Verify plant lists do not contain invasive plant species at Cal-IPC's invasive plant inventory (www.cal-ipc.org/ip/inventory/weedlist) and the local Agricultural Commissioner's Office (Cal-IPC 2012). Any seed mixes should incorporate native plant materials to the maximum extent feasible.
Biological Resources: Wildlife Species	See Appendix E
Biological Resources: Threatened and Endangered Species	The City would be required to purchase three Valley Elderberry Longhorn Beetle (VELB) mitigation credits from a Service approved mitigation bank during the permitting phase of the PA prior to the start of construction.
Air Quality	See Appendix G
Visual Resources	Per Caltrans standards regarding erosion control, exposed slopes would be re-vegetated.
Visual Resources	Vegetation clearing would only occur within the delineated PA area boundaries to minimize impacts. Trees located in areas along the edge of the construction zone would be trimmed and only those trees that lie within the active construction areas would be removed.
Visual Resources	Construction lighting types, plans, and placement shall comply with Caltrans and local standards in order to minimize light and glare impacts to wildlife and nearby residents.

Resource	Measure
Noise	Construction shall be conducted in accordance with Caltrans Standard Specifications Section 14.8-02 "Noise Control," which states the following: • Do not exceed 86 dB A Lmax at 50 feet from the job site activities from 9 p.m. to 6 a.m. • Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.
Noise	Construction activities would occur between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturday or Sunday, to minimize exterior noise levels. If construction is needed outside of this timeframe, a variance from the City is required and will be obtained per the Folsom Municipal Code, Chapter 8.42 Noise Control, Section 8.42.090-Variations.

Section 3 Affected Environment and Environmental Consequences

This section identifies the potentially affected environment and the environmental consequences involved with the PA and the No Action Alternative, in addition to environmental trends and conditions that currently exist.

This EA analyzes the affected environment of the PA and No Action Alternative in order to determine the potential direct, indirect, and cumulative effects to the following resources:

- Water Resources
- Land Use
- Recreation
- Biological Resources
- Cultural Resources
- Air Quality
- Traffic
- Visual Resources
- Noise

3.1 Resources Not Analyzed in Detail

The Department of Interior Regulations, Executive Orders, and Reclamation guidelines require a discussion of the following resources. As part of the environmental analysis conducted, the following resources were considered but no potential effects were identified.

3.1.1 Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the United States for federally recognized Indian tribes on individuals. ITAs can be real property, physical assets, or intangible property rights, such as a lease, or right to use something; which may include lands, minerals and natural resources in addition to hunting, fishing, and water rights. Indian reservations, Rancherias, and public domain allotments are examples of lands that are often considered trust assets.

The nearest ITA is the Shingle Springs, Shingle Springs Band of Miwok Indians approximately 10.69 miles from the project site. Because no ITAs are present within or adjacent to the proposed road widening, the PA would have no effect on Indian Trust Assets (see Appendix A).

3.1.2 Indian Sacred Sites

Sacred sites are defined in Executive Order (EO) 13007 (May 24, 1996) as “any specific, discrete narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be on appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site”. No Sacred Sites were identified in the PA area during consultation with local Native American tribes. Therefore, the PA would not affect and/or prohibit access to and ceremonial use of Indian Sacred Sites based on a sacred lands file review of the project vicinity conducted by the Native American Heritage Commission.

3.1.3 Environmental Justice

3.1.3.1 *Regulatory Setting*

EO 12898 requires that federal agencies make achieving environmental justice part of their mission by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Implementing guidance for this EO includes:

Environmental Justice Guidance Under NEPA (CEQ 1997) and Final Guidance for Incorporating Environmental Justice Concerns in Environmental Protection Agency’s (EPA) NEPA Compliance Analyses (USEPA 1998). The published guidelines do not define the term “disproportionately high and adverse,” but the CEQ guidance states that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population (CEQ 1997).

To make a finding that disproportionately high and adverse effects would likely fall on minority or low-income populations, three conditions must be met simultaneously:

- There must be a minority or low-income population in the impact zone.
- A high and adverse impact must exist.
- The impact must be disproportionately high and adverse on the minority or low-income population.

Communities may be considered “low-income” under the executive order if the median household income for the defined geographic area is below the poverty line (primary method of analysis), or if other indications are present that indicate a low-income community is present within the census tract (secondary method of analysis).

According to guidance from the CEQ (1997) and the EPA (1998), communities may be considered “minority” if the cumulative percentage of minorities within a defined geographic area is greater than fifty percent (primary method of analysis) or the cumulative percentage of minorities within the defined geographic area is less than fifty percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population percentage in or other appropriate unit of geographic analysis (secondary method of analysis).

3.1.3.2 *Affected Environment*

Demographics, Income, and Poverty Status

The City is located in the northeastern portion of Sacramento County. As of 2014, the City had an estimated population of 75,361; an increase of approximately 3,158 people from 2010 to 2014 (U.S. Census Bureau 2014). Homes in the project area consist mostly of single-family residences.

The median household income for residents of the City is 98,359 dollars (U.S. Census Bureau 2014). As of 2013, the City had a 2.5 percent rate of families and 4.6 percent rate of all people living below the poverty level (U.S. Census Bureau 2013a) compared to the 2009-2013 5 year national estimate of 11.4 percent of families, and 15.5 percent of all people (U.S. Census Bureau 2013b). The total percentage of people living in poverty represents less than 50 percent of the total population of the City; therefore, no low-income populations have been identified in the vicinity of the PA.

Minority Communities

Races considered minorities under EO 12898, include American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), and Hispanic. The City’s racial composition is described in Table 2 (U.S. Census Bureau, 2010). Because none of the minority populations as defined by EO 12898 are 50 percent or greater than the other populations in the City, there are no identified minority populations in the vicinity of the project site.

Table 2: Census 2010 Racial Composition of City of Folsom

Race/Ethnicity	Percent (%)
Total Single Race Population	93.3
Caucasian	74.3
African American	5.7
Hispanic	11.2
American Indian and Alaska Native	0.6
Asian	12.5
Pacific Islander	0.2
Total Multi-Race Population	4.2

3.1.3.3 Environmental Consequences

Short-term impacts of constructing the proposed road widening project would not have a disproportionately high and adverse human health or environmental effect on low-income or minority populations because no low-income or minority populations are present, adjacent to, or near the PA area.

3.1.4 Global Climate Change

Climate change refers to significant change in measures of climate (e.g., temperature, precipitation, or wind) lasting for 3 decades or longer. Many environmental changes can contribute to climate change: changes in sun's intensity or ocean circulation, deforestation, urbanization, burning fossil fuels, etc. Greenhouse gas (GHG) impacts are considered to be cumulative impacts since any increase in greenhouse emissions would add to the existing inventory of gases that could contribute to climate change. Therefore, GHG impacts are further discussed in *Section 3.11 Cumulative Impacts*.

3.2 Water Resources

3.2.1 Affected Environment

Hydrology

The PA area is located within the American River Basin. The American River Basin is composed of three major tributaries: the North Fork, Middle Fork, and South Fork American River, and covers an area of approximately 2,100 square miles. These tributaries drain the upper watershed carrying runoff from precipitation and snowmelt into Folsom Reservoir. The lower American River watershed originates below Folsom Reservoir, which was created by Folsom Dam. The PA area is located within the lower American River watershed.

The Mormon Island Auxiliary Dam (MIAD) was constructed across Blue Ravine, a historical tributary of the American River that once joined with the American River south of the City (Reclamation 2009a). During construction, most of the water draining into Blue Ravine was diverted into the South Fork American River (Reclamation 2009a). Stormwater runoff from the

downstream side of the MIAD embankment and surrounding area drains through a culvert under Green Valley Road to the Mormon Island Wetlands Natural Preserve, within the PA area (Figure 3). Water from the preserve eventually drains into Humbug Creek, a tributary of Willow Creek, and discharges into Lake Natoma (Reclamation 2009a). The tributary to Humbug Creek, and Willow Creek are not included in the RWQCB list of impaired waters.

The Mormon Island Wetlands Natural Preserve is located south of Green Valley Road and is owned by Reclamation and currently managed by California State Parks as part of FLSRA. The preserve contains a series of wetlands and ponded areas, some of which remain wet for most of the year. It is believed that the water source for a small area of wetlands located in the north-central area of the preserve, directly adjacent to Green Valley Road, could be from seepage of the MIAD embankment. The source of this seepage is suspected to be a combination of bank storage of precipitation in the MIAD's downstream toe and seepage via joints in the foundation bedrock. This seepage collects in a drain and eventually flows through a culvert under Green Valley Road into the north-central part of the preserve (Reclamation 2006, Reclamation 2009a). The source of water in the oak woodland area of the preserve is believed to originate from the higher hillsides to the east due to release of bank storage and surface water runoff following precipitation events (Reclamation 2006).

Groundwater

According to Department of Water Resources' (DWR) Groundwater Bulletin 118, the PA area overlies the South American sub-basin of the Sacramento Valley groundwater basin, in the eastern central portion of the Sacramento River Hydrologic Region (Caltrans 2015f).

Storage capacity for the South American sub-basin is estimated by DWR (DWR 1997) to be 4.8 million acre-feet. The groundwater quality of the sub-basin has been assessed by DWR and determined to be of good quality in many areas. The two major groundwater types include magnesium calcium bicarbonate and sodium calcium bicarbonate (Caltrans 2015f).

Uncertainty currently exists regarding the hydrologic connectivity between MIAD and the wetlands throughout the Mormon Island Wetlands Natural Preserve. Reclamation completed a literature review of prior investigations in their 2006 report entitled *MIAD Hydrogeology Report* (2006), and determined that data collected throughout the downstream foundation area suggests no reservoir connection to local groundwater levels (Reclamation 2006). However, there does appear to be a hydraulic connectivity in the dredged alluvium downstream of MIAD in the area between the dam toe and the preserve. Reclamation committed to monitor the groundwater conditions downstream in the preserve after MIAD construction. The monitoring program is still underway. The program involves measuring groundwater elevations via a network of monitoring wells. Reclamation is responsible for providing sufficient water to maintain groundwater elevations and preserve the existing wetlands.

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. Grading and fill within the tributary to Humbug Creek would not occur and riparian vegetation would not be removed. The potential for erosion would remain unchanged as would the amount of sediment entering the Humbug Creek tributary. In addition, the siphon for the Humbug Creek tributary would not be replaced with an open-bottom culvert so the potential for roadway flooding would remain high. No project-induced impacts to hydrology and groundwater would occur within the project area under the No Action Alternative.

Proposed Action

Under the PA, construction activities would include disturbances to the ground surface from earthwork, including grading and fill within the tributary to Humbug Creek. Removal of some of the existing riparian vegetation would be required due to construction activities, which could increase the potential for slope erosion. These activities could potentially increase the amount of sediments entering the tributary to Humbug Creek. Runoff during the winter season is of greater concern due to the potential erosion of unprotected or graded surfaces during rain events. Sediments could potentially harm aquatic resources and water quality.

The PA would include replacement of the siphon with an open-bottom box culvert for the tributary to Humbug Creek that flows underneath Green Valley Road, extending the culvert by 35 feet (Figure 4).

The addition of two lanes and bike lanes would increase the impervious surface areas on Green Valley Road. The PA's Total Disturbed Soil Area is approximately 7 acres, including temporary and permanent disturbance.

The PA's total permanent increase of impervious surfaces is approximately 4.6 acres. Construction of the PA could potentially increase the volume of stormwater runoff from the roadway surfaces that could enter the drainage system and eventually Willow Creek. The increased amount of stormwater runoff will be determined during final design. Roadways may contain oil, grease, petroleum products, zinc, copper, lead, cadmium, iron, or other trace metals, which could harm aquatic life. Concentrations of these pollutants in stormwater runoff would be greatest during the "first flush" storm event, generally the first major rains of the season.

Materials used during construction of the PA (e.g., concrete curing compounds) could have chemicals that are potentially harmful to aquatic resources and water quality. Accidents or improper use of these materials could result in the release of contaminants into the environment, including the creeks. Additionally, oil and other petroleum products used to maintain and operate construction equipment could be accidentally released. Environmental Protection Measures in Appendix B would be employed to minimize the potential for these occurrences.

Although there is the potential for a slight increase in polluted runoff due to increased impervious surfaces, the PA water quality impacts to surface water and groundwater are expected to be minimal. The PA area is not located in a 'High Risk Receiving Watershed'; therefore the Construction General Permit Risk Level will be Level 2.

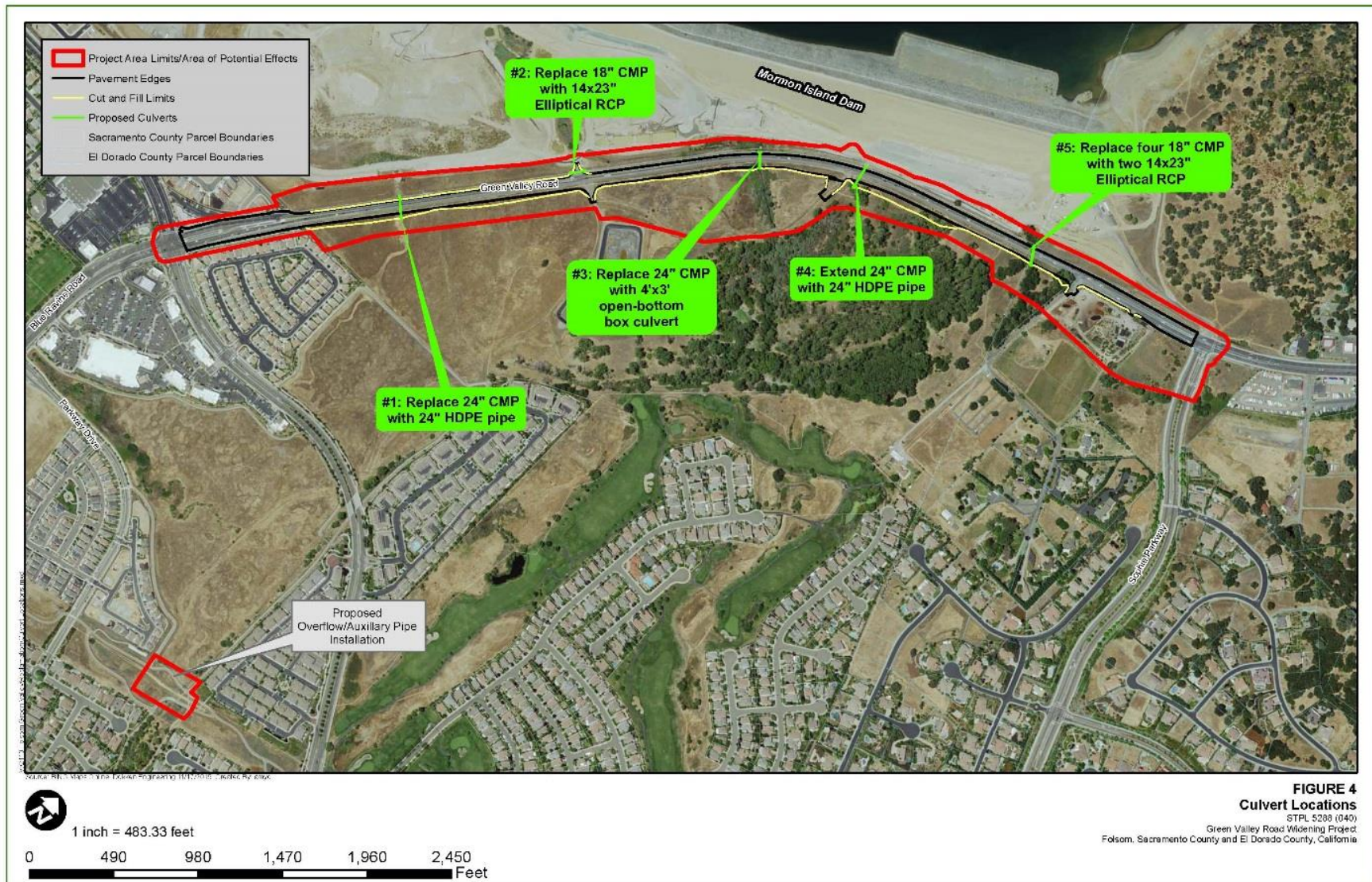


Figure 4: Culvert Locations

The PA would require a Section 1602 Streambed Alteration Agreement through the California Department of Fish and Wildlife (CDFW) to ensure protection from impacts to the streambed, along with a Water Quality Certification (401) from the RWQCB and a Nationwide Permit for impacts to Waters of the U.S. (404) from USACE. The Environmental Protection Measures in Appendix B will be included on applicable plans prepared for the PA.

3.3 Land Use

3.3.1 Affected Environment

City of Folsom General Plan

According to the City of Folsom 1993 General Plan, the PA area is planned for open space, residential and some commercial development. The PA area within the City is currently zoned as Agricultural Reserve District, Central Business District, Neighborhood Business District, Open Space Conservation District, Residential Multi-Family Dwelling District, and Single Family Dwelling District. The portion of the PA area within the County is currently zoned for Commercial, Promontory Specific Plan, Single Family 2-Acre, and Recreational Facilities.

While a portion of the PA area within the City is zoned as an Agricultural Reserve District, this area is owned by Reclamation and managed by California State Parks as part of FLSRA. The FLSRA is used for recreational activities. The existing roadway of Green Valley Road bisects the Agricultural Reserve District.

The land on the north side of Green Valley Road is also owned by Reclamation. Reclamation has completed construction activities associated with the MIAD Overlay Project.

Commercial, Public Utilities and Parks and Open Space

Residential housing and several retail businesses are located on the southern portion of the PA area at the intersection of East Natoma Parkway and Green Valley Boulevard. The PA area also connects to Sophia Parkway within the unincorporated community of El Dorado Hills. The County's General Plan (El Dorado County Planning Department 2004) land use map designates the land along Green Valley Road and adjacent to the City as a mix of Medium Density Residential, Commercial, and Open Space.

The City's General Plan Update (City of Folsom 2014) Transportation and Circulation Element, describes Green Valley Road as a two-lane southwest-northeast arterial road that extends from the City to the City of Placerville.

FLSRA General Plan/Resource Management Plan

As mentioned above, the PA area is located within FLSRA, owned by Reclamation, and managed by California State Parks. The open space land on either side of Green Valley Road within the PA area is owned by Reclamation. The open space land south of Green Valley Road

is also designated as the Mormon Island Wetlands Natural Preserve, a sub-unit of FLSRA. The Mormon Island Wetlands Natural Preserve is approximately 113 acres and was classified as a Natural Preserve by the California Park and Recreation Commission in 1992 in recognition of its significant and sensitive resource values (CA State Parks and Reclamation 2007).

The FLSRA General Plan/Resource Management Plan (GP/RMP) states that the Mormon Island Wetlands Natural Preserve shall maintain and enhance its role as an important wetland preserve within FLSRA and expand opportunities for interpretation and education. These goals are stipulated in 13 guidelines and include establishing trails, a parking lot and informative displays, and management of invasive/exotic species, VELB habitat, and wetlands. The Draft EIR/EIS for the GP/RMP discusses potential environmental impacts of implementing the guidelines proposed in the GP/RMP. The Final EIR/EIS requires additional project specific environmental analysis be conducted as appropriate for facility development, management plans or other improvements proposed in the GP/RMP (Reclamation and CA State Parks 2009). This EA serves as additional environmental analysis required for facility development and improvements proposed within Mormon Island Wetlands Natural Preserve, as described in *2.2 Proposed Action*.

California PRC §5019.71 defines natural preserves as distinct places established within the boundaries of other state park system units which shall exist to preserve such features as rare or endangered plant and animal species and their supporting ecosystems; representative examples of plant and animal communities existing in California prior to the impact of civilization; geological features illustrative of geological processes; significant fossil occurrences or geological features of cultural or economic interest; or topographic features illustrative of representative or unit biogeographic patterns. Such areas shall be of a sufficient size to allow, where possible, the natural dynamics of ecological interaction to continue without interference, and to provide, in all cases, a practicable management unit (PRC §5019.71). CCR §4351 requires that minimal tool use shall be applied within preserves and wilderness areas and, except where necessary in an emergency, there shall be no use of motorized vehicles, motorized equipment, or motorboats, no other form of mechanical transport (notwithstanding Section 4360(a)), and no permanent structure or installation within any state natural preserve, except to the extent the Director of the California Department of Parks and Recreation makes the findings required in section 4351 (a) in writing allowing such uses.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement to the City and the road widening activities would not occur. The access to Mormon Island Wetlands Natural Preserve from Green Valley Road would not be impacted. The traffic associated with planned land uses would continue to increase along Green Valley Road within the PA area.

Proposed Action

The PA would accommodate traffic associated with planned land uses. The PA is needed as a “gap closure project” to complete the ultimate width of the roadway, which is consistent with the City’s General Plan (City of Folsom 1993).

The PA would conflict with the FLSRA GP/RMP as it would impact 4.5 acres of the Mormon Island Wetlands Natural Preserve. These impacts are considered potentially significant. Implementation of measures within Table 1; Section 3.4 Recreation; and those listed below would reduce these impacts to a negligible level. Implementation of the following measures would be consistent with the FLSRA GP/RMP:

- Enhance the existing Reclamation O&M staging area to a paved and gated parking lot. This enhanced parking area would improve access to and visitor experience at the Mormon Island Wetlands Natural Preserve and would be consistent with the FLSRA General Plan. The parking area is adjacent to, but just outside the western Natural Preserve boundary.

Install a self-pay station, garbage/recycling container, and sign kiosk with interpretive panel about the wetlands within the parking lot.

3.4 Recreation

3.4.1 Affected Environment

The nearest public park is located within the PA area footprint and consists of FLSRA and its subunit, the Mormon Island Wetlands Natural Preserve. A portion of the Mormon Island Wetlands Natural Preserve would be incorporated into the perpetual easement for the widening of Green Valley Road. Within the Mormon Island Wetlands Natural Preserve there is a Reclamation O&M access road, which runs parallel to Green Valley Road through the northern portion of the Preserve. The public uses the O&M access road to connect to other State Park trails throughout the Natural Preserve area. A segment of this access road would be permanently impacted through implementation of the PA.

The PA includes 6-foot wide bicycle lanes and is consistent with the *City of Folsom Bicycle, Pedestrian & Trails Master Plan*. The bicycle lanes would connect with existing Class II bike lanes along East Natoma Parkway and Sophia Drive.

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement to the City and the road widening activities would not occur. The width of the road and the bike lanes would remain unchanged. The access to Mormon Island Wetlands Natural Preserve from Green Valley Road would not be impacted.

Proposed Action

The road widening would not 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. The PA does not include other recreational facilities, nor does it require the construction or expansion of other recreational facilities.

Green Valley Road provides access to Mormon Island Wetlands Natural Preserve. The preserve is also accessible through local roads on the southern side of the park. Access will not be impacted during construction. However, trail access within the preserve will be temporarily impacted during construction activities. A segment of the Reclamation O&M access road, approximately 1,300 feet, (1,200 feet of which are within the Preserve boundary) would be permanently impacted by the road widening activities and would require temporary closure during construction of the PA. This access road segment would also require permanent re-routing post construction. This impacted segment is located south of Green Valley Road, between the Reclamation O&M staging area adjacent to the Mormon Island Wetlands Natural Preserve and Shadowfax Lane (Figure 5). The extension of Green Valley Road in this area would permanently impact the access road.

Implementation of the following measure would reduce these impacts:

- Prior to start of construction, the impacted segment of Reclamation's O&M access road (Mormon Island Wetlands Trail) located between the Reclamation O&M staging area and Shadowfax Lane, south of Green Valley Road, would be temporarily re-routed to the MIAD Crest Trail. This re-routed segment of the access road shall remain open throughout project construction.

Upon completion of construction in this area, an access road would be re-established directly south of Green Valley Road between Reclamation's O&M staging area and Shadowfax Lane. This road would be 12 feet wide and would be used by Reclamation staff to access the existing groundwater monitoring wells to continue routine, required monitoring activities. In addition, this road is anticipated to replace the permanently impacted segment of the current access road footprint. This road would be constructed in a route that avoids impacts to trees and would be surfaced with 0.75 inch gravel. Mowing and maintenance of the access road would continue approximately two to three times per year by Reclamation staff to maintain accessibility and vegetation management. Public access would continue to occur within Reclamation's O&M access road area.



Figure 5: Trail Detour

3.5 Biological Resources

3.5.1 Natural Communities

3.5.1.1 Affected Environment

Natural communities within the PA area include disturbed non-native annual grasslands, valley oak woodland, narrow leaf willow riparian, fresh emergent wetland, and vernal pools.

The disturbed non-native annual grassland community within the PA area is dominated by medusa head (*Elymus caput-medusae*) and also includes wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and brachypodium (California State Parks and Reclamation 2007).

The valley oak woodland natural community within the PA area is dominated by valley oak (*Quercus lobata*) and Fremont cottonwoods (*Populus fremontii*), with an understory consisting of narrow leaf willow (*Salix exigua*), Goodding's willow (*Salix gooddingii*), poison oak (*Toxicodendron diversilobum*), coyote brush (*Baccharis pilularis*), and Himalayan blackberry (*Rubus armeniacus*). Interior live oak (*Quercus wislizeni*) trees and elderberry shrubs (*Sambucus nigra* ssp. *caerulea*) are also present within this natural community type.

The narrow leaf willow riparian community is dominated by narrow leaf willow. In addition, the understory is dominated by Himalayan blackberry. Elderberry shrubs can be found along edges of this natural community type. This natural community type is commonly found in areas of high disturbance and recently eroded stream banks.

The fresh emergent wetland supports many common plant types, including baltic rush (*Juncus balticus*), broadleaf cattail (*Typha latifolia*), hairy vetch (*Vicia villosa*), water primrose (*Ludwigia hexapetala*), and narrow leaf willow.

Vernal pools within the PA area consist of depressions with species such as spikerush (*Eleocharis* sp.), water buttercup (*Ranunculus aquatilis*), coyote thistle (*Eryngium vaseyi*), and goldfields (*Lasthenia* sp.) (CDM 2009).

3.5.1.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. No impacts would occur to valley oak woodland, fresh emergent wetland, narrow leaf willow riparian, and non-native annual grassland communities.

Proposed Action

The PA would result in temporary and permanent impacts to fresh emergent wetland, narrow leaf willow riparian, non-native annual grassland communities, and valley oak woodland (Table 3). All of the impacts, with the exception of 0.01 acre of permanent impacts to non-native annual grassland, are located within Mormon Island Wetlands Natural Preserve.

Table 3: Temporary and Permanent Impacts by Natural Community Type.

Natural Community Type	Temporary Impacts	Permanent Impacts
Fresh emergent wetland	0.31 acres	0.43 acres
Narrow leaf willow riparian	0.02 acres	0.01 acres
Non-native annual grassland	2.4 acres	3.8 acres
Valley Oak Woodland	0.81 acres	0.48 acres

Impacts to narrow leaf riparian habitat and Waters of the U.S. will be further discussed in Section 3.5.2.

The road widening would require the removal of vegetation within the PA area. Approximately 33 mature trees along the southern edge of the roadway would be removed. This would include 16 Fremont cottonwoods, one Goodding's willow, two red willows, and seven valley oak trees.

The following measures would be implemented to minimize and avoid impacts:

- Prior to the start of construction activities, the PA area limits in proximity to jurisdictional waters and cottonwood/willow riparian areas shall be marked with high visibility fencing to ensure construction would not further encroach into these areas.
- The Project biologist would inspect the fencing daily to ensure sensitive locations remain undisturbed.
- Construction of the roadway and culverts is anticipated to take place during the dry season. However, should water be present, temporary dewatering would occur prior to construction. The tributary channel and wetland area would be dewatered of standing water by methods determined appropriate by the contractor. Discharged water will be in compliance with all applicable CWA and Central Valley RWQCB regulations. The City will submit a dewatering plan to the USACE and Central Valley RWQCB prior to construction upon request.
- The City would comply with the City's Municipal Code, Chapter 12.16 Tree Preservation. Chapter 12.16 Tree Preservation restricts encroachments within designated 'tree protection zones' for trees meeting the City's definition of a City 'Protected tree'. Tree protection zones shall be established to avoid project impacts to protected trees located along the extent of the project construction footprint. There are approximately 14 protected oak trees which would be removed. The removal of six of these trees requires mitigation. The remaining eight trees do not require mitigation based on the City's Tree

Preservation requirements. Two of the trees are smaller than the City's minimum Diameter at Breast Height (DBH) requirement for mitigation. The remaining six trees were evaluated by an arborist as exhibiting a poor condition of health (ABACUS Consulting Arborists 2015). Mitigation of the six qualifying oak trees would be accomplished by mitigating for one tree at a ratio of 15:1, based on The City's Tree Removal Mitigation Rate Table which uses DBH measurements. The oak trees would be planted onsite using 15-gallon trees of the protected tree species. The trees would be irrigated (hand or mechanically) as well as monitored for a duration established by the City's final tree mitigation plan. The remainder of the six oak trees require in-lieu fee mitigation. Using the City's Tree Removal Mitigation Rate Table, the City is responsible for \$9,250.00 of in-lieu fees to fully comply with the Tree Ordinance.

- To compensate for the spatial and temporal habitat loss of the tree removal, additional on-site mitigation would be required. After coordination with Reclamation and California State Parks, the City determined that approximately 51 trees would be needed to replace the 0.50 acre of mixed valley oak woodland and narrow leaf willow riparian habitat loss along the limits of the enhanced parking lot and O&M access road. This planting number was based on the planting location area, appropriate tree planting distance, and average canopy width. These 51 trees, depending on actual survival rate, would create between 2.5 and 3.35 acres of mixed valley oak woodland and valley foothill riparian edge habitat. This additional acreage consists of an approximate 5:1 or 6:1 ratio, depending on actual survival rate. In order to replace the existing habitat values and functions within the PA area, the following tree species and quantities would be planted on-site: 36 Fremont cottonwood trees, 10 interior live oak trees, and five valley oak trees. The 15 oak trees are previously mentioned above for mitigation of one oak tree at a 15:1 ratio.
- Special protection measures outlined in the Arborist Report (ABACUS Consulting Arborists 2015) shall be followed to avoid and minimize impacts to trees remaining in place within the PA area.
- The 51 trees would be planted onsite and irrigated (hand or mechanically) as well as monitored for a duration established by the City's final tree mitigation plan. The cottonwood saplings would be sited at least 100 feet away from the proposed parking area and at least 30 feet away from the access road to prevent the potential for limbs falling onto vehicles or pedestrians.

Final tree mitigation ratios and planting locations may vary from the City's Municipal Code depending on site conditions and coordination with Reclamation and California State Parks. Final tree mitigation ratios and planting locations will be reviewed and approved by Reclamation and California State Parks.

3.5.2 Wetlands and Other Waters

3.5.2.1 *Affected Environment*

Wetlands and other waters within the PA area consist of Humbug Creek, three tributaries, fresh emergent wetland, narrow leaf willow riparian, and vernal pool habitat.

3.5.2.2 *Environmental Consequences*

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. No impacts to Waters of the U.S. and Waters of the State would occur.

Proposed Action

The PA would result in both permanent and temporary impacts to Waters of the U.S. and Waters of the State (Figure 6).

Permanent impacts include areas that would permanently be altered by deposition of fill material or down cutting required to widen the roadway across uneven terrain. Down cutting would include scraping or cutting the ground surface to the desired elevation and slope angle using heavy machinery.

Temporary impacts include construction areas outside of permanent impacts that would be re-contoured to pre-construction conditions and re-vegetated after construction.

The PA would permanently impact approximately 0.45 acres of Waters of the U.S. and 0.46 acres of Waters of the State. The PA would temporarily impact an additional 0.32 acres of Waters of the U.S. and 0.34 acres of Waters of the State (Table 4). Culvert replacements would result in a minor capacity increase but are not anticipated to change ponding conditions in the wetlands north or south of the road.

Table 4: Proposed Action Effects to Jurisdictional Waters

	Waters of the U.S	Waters of the U.S	Waters of the State	Waters of the State
Jurisdictional Waters	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)
Humbug Creek	No Impact	--	--	--
Tributary 1	0.01	0.005	0.01	0.005
Tributary 2	No Impact	--	--	--
Tributary 3	0.01	0.005	0.01	0.005
Fresh Emergent Wetland	0.43	0.31	0.43	0.31
Narrow Leaf Willow Riparian	--	--	0.01	0.02
Vernal Pools	No Impact	--	--	--
Total	0.45	0.32	0.46	0.34

The PA has been designed to avoid and minimize temporary and permanent impacts to Waters of the U.S. and Waters of the State to the maximum extent practicable. The Environmental Protection Measures in Appendix C would be implemented to minimize construction impacts to Waters of the U.S. and Waters of the State within the PA area and regional water quality.

The City received a Final Lake or Streambed Alteration Agreement from CDFW dated March 1, 2016, and a Nationwide Permit 14 (Linear Transportation Projects) verification letter from the Sacramento District Corps of Engineers dated February 19, 2016. The City applied for a Water Quality Certification from the Central Valley RWQCB on October 6, 2015.

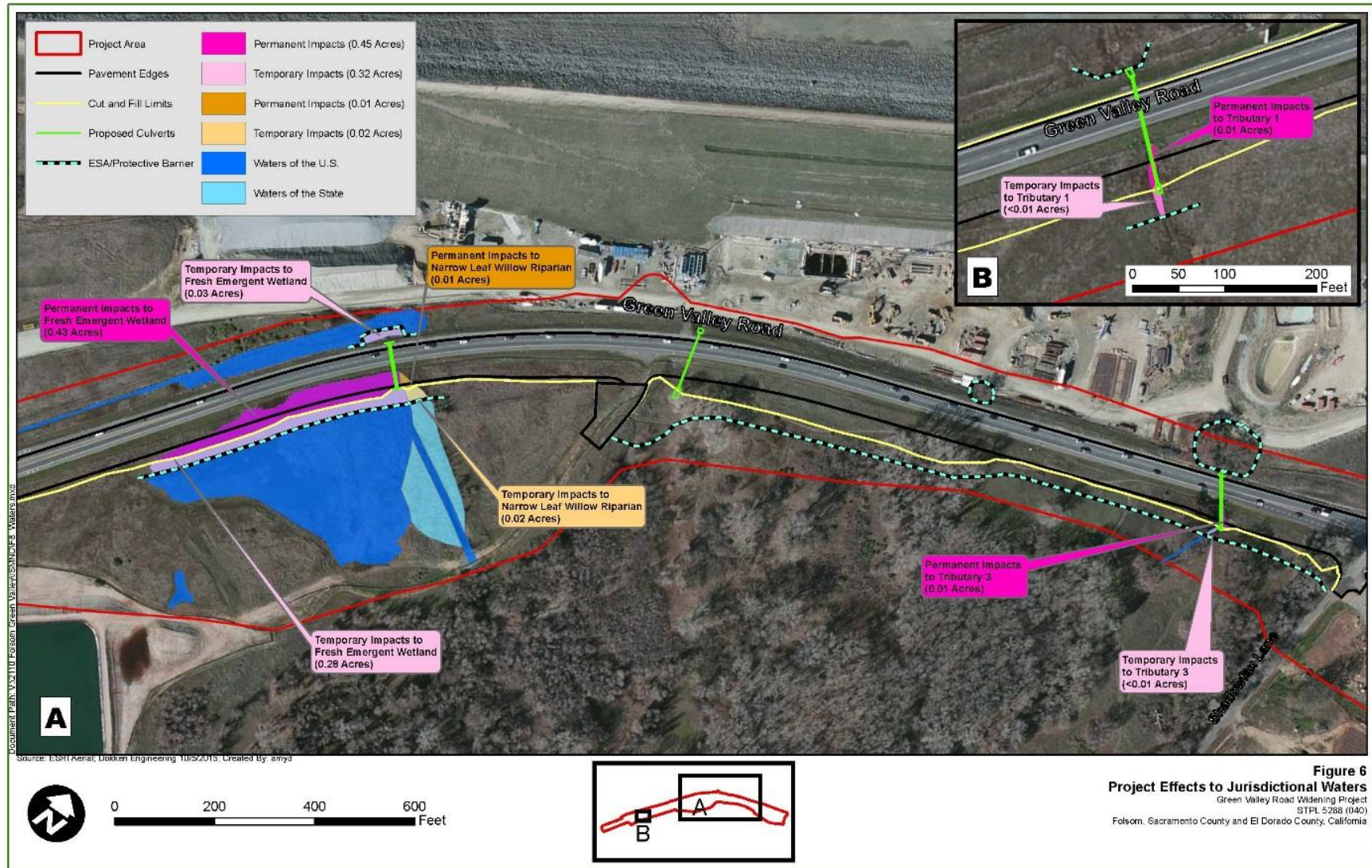


Figure 6: Proposed Action Effects to Jurisdictional Waters

Based on the Nationwide Permit letter, permanent impacts to 0.45 acres of Waters of the U.S. would be mitigated by the City through purchasing 0.86 credits of Fresh Emergent Wetland habitat and 0.04 credits of Riparian habitat at Consumnes Floodplain Mitigation Bank. Evidence of this purchase shall be provided to USACE prior to initiation of construction activities within Waters of the U.S.

3.5.3 Plant Species

3.5.3.1 Affected Environment

The Natural Environmental Study (NES) (Caltrans 2015a) serves as the basis for much of this section. Biological surveys were conducted on January 29, 2015, to identify plant species in the PA area. Prior to field work, literature research was conducted through U.S. Fish and Wildlife Service (Service) Species List, CDFW *California Natural Diversity Database* (CNDDB) (CDFW 2015) and the California Native Plant Society's (CNPS) *Electronic Inventory of Rare and Endangered Plants* (CNPS 2015) to identify habitats and special-status species having the potential to occur within the PA area. Based on assessment of habitats, soil maps, biological surveys and recorded occurrences of regional special status plant species, no special status plant species have the potential to occur within the PA area. While the PA area provides potentially suitable habitat for six federally listed plant species, all of these species are presumed absent from the PA area based on a lack of CNDDB and CNPS recorded occurrences within five miles of the PA area (Appendix D). The six federally listed plant species are: El Dorado bedstraw (*Galium californicum ssp. Sierra*), Layne's ragwort (*Packera layneae*), Pine Hill ceanothus (*Ceanothus roderickii*), Pine Hill flannelbush (*Fremontodendron decumbens*), Sacramento Orcutt grass (*Orcuttia viscida*), and Stebbins' morning-glory (*Calystegia stebbinsii*). In addition, none of these species were observed during biological surveys and suitable habitat is not present within the PA area. The federally listed plant species are further discussed in Section 3.5.5 – Threatened and Endangered Species.

3.5.3.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. No impacts to plant species would occur.

Proposed Action

All special status plant species are presumed absent from the PA area. The PA would have no impacts to special status plant species. However, the PA has been designed to avoid and minimize impacts to natural habitats. Implementation of the following measures would ensure that invasive species are not introduced.

- Prior to arrival at the project site and prior to leaving the project site, all equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spreading of noxious weeds. Reclamation's Technical Memorandum Number 86-68220-07-05, *Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species* (Reclamation 2012) shall be followed.
- Any cleared or grubbed vegetation that consists of nonnative plant species material would be hauled off site and not temporarily or permanently stockpiled or used as backfill in the Mormon Island Wetlands Natural Preserve or in adjacent areas to the Preserve.
- During hydro-seeding of disturbed construction areas and planting mitigation trees within the project area, the project must not incorporate California Invasive Plant Council (Cal-IPC) invasive species. Verify plant lists do not contain invasive plant species at Cal-IPC's invasive plant inventory (www.cal-ipc.org/ip/inventory/weedlist) and the local Agricultural Commissioner's Office (Cal-IPC 2012). Any seed mixes should incorporate native plant materials to the maximum extent feasible.

3.5.4 Wildlife Species

3.5.4.1 Affected Environment

The NES (Caltrans 2015a), and the Biological Assessment (BA) for the VELB for the Green Valley Road Widening (Caltrans 2015b) contains information applicable to the wildlife species potentially found within the PA area. This information is incorporated into this section by reference. A search of the Service and CDFW databases indicated 35 special-status animal species with potential to occur within or near the PA area (see Appendix D).

Based on biological surveys and conditions at the PA area, of the 35 special-status animal species with potential to occur within or near the PA area, eight species are listed as federally threatened or endangered and are discussed in Section 3.4.5 – Threatened and Endangered Species. Of the remaining 27 special-status animal species, 11 species are not expected and 16 species have a low to moderate potential to occur.

No special status species were observed during the January 29, 2015, surveys. VELB (*Desmocerus californicus dimorphus*) is presumed present within the PA area due to presence of obligate host elderberry shrubs within the PA area and the PA area being located within the current range of VELB. Further discussion on VELB is included under Section 3.5.5 - Threatened and Endangered Species of this document.

3.5.4.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. No impacts to wildlife species would occur.

Proposed Action

With the implementation of the Environmental Protection Measures in Appendix E, impacts to special-status wildlife are not anticipated.

3.5.5 Threatened and Endangered Species

3.5.5.1 *Affected Environment*

The NES (Caltrans 2015a) included evaluation of threatened and/or endangered species potentially within the PA area. For the NES, literature research was conducted through the Service (USFWS 2015a), CNDDDB (CNDDDB 2015), and the CNPS Electronic Inventory of Rare and Endangered Plants (CNPS 2015) to identify habitats and special-status species having the potential to occur within the PA area. The Service was contacted to help identify habitats and special-status species having the potential to occur within the PA area. An official species list was issued from the Service, and coordination between the Service and the Project biologist took place to identify potential habitats and special-status species to consider. Included in Appendix D is a table of the currently listed federally threatened or endangered species (Service, CDFW, and CNPS databases) that could potentially occur within the PA area. This list includes six plant species and eight animal species.

Caltrans conducted a field survey on January 29, 2015, and documented existing biological resources, searched for suitable habitat, and determined presence of Federal and State protected species.

Based on the NES findings, field surveys, and review of previous biological studies, one threatened and endangered species has the potential to occur in the PA area. VELB (*Desmocerus californicus dimorphus*), a Federally Threatened species is presumed present within the PA area due to presence of obligate host elderberry shrubs (*Sambucus* sp.) within the PA area and the PA area being located within the current range of VELB.

Five specimens of elderberry shrubs were identified within the PA area during the field survey (Caltrans 2015b). While elderberry shrubs are not special-status, they are potential habitat for the Federally-threatened VELB.

3.5.5.2 *Environmental Consequences*

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. No impacts to VELB or elderberry shrubs would occur.

Proposed Action

Threatened and endangered species found to have a moderate to high potential to occur or are present within the PA area are limited to VELB and is discussed below.

Valley Elderberry Longhorn Beetle

VELB is Federally-listed as endangered and is closely associated with elderberry shrubs, an obligate host for beetle larvae. Elderberry shrubs are considered a typical riparian shrub (Barr 1991) in California that inhabits moist valley oak woodlands associated with riparian corridors (Roberts et al. 1977; Katibah et al. 1984; Warner 1984).

Both elderberry groupings within the PA area are located very close to the existing Green Valley Road and would be directly impacted by the proposed roadway expansion. No potential VELB exit holes were observed on any elderberry shrubs surveyed. Table 5 documents all elderberry shrubs found during the focused VELB survey and provides stem diameter, exit hole data, and anticipated PA impacts. Direct impacts to elderberry shrubs are defined as partial trimming or complete removal of an elderberry shrub. Indirect impacts to elderberry shrubs are defined as any elderberry shrub located between 20 and 100 feet from PA activities that could be impacted by habitat disturbance or dust accumulation.

PA impacts to VELB would be limited to the removal of five elderberry host plants with a total of 13 live stems with a diameter of one inch or greater. No exit holes at these elderberry plants were observed during field surveys and there are no recent recorded occurrences of the species within 3,000 feet of the shrubs to be removed. However, due to the fact that the life cycle of VELB takes one or two years to complete, during which it spends most of its life in the larval stage living within the stems of elderberry shrubs, it is not possible to know if the stems are inhabited by VELB. The closest known CNDDDB occurrence of VELB is approximately one mile south of the PA area along Willow Creek (CNDDDB 2015). This proximity increases the likelihood that stems greater than or equal to one inch in diameter at ground level are inhabited by VELB, despite no exit holes being observed on stems during surveys. The five elderberry shrubs represent a small proportion of available habitat throughout the full species range.

Pursuant to the Service 1999 *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*, removed elderberry shrubs with one or more stems 1.0 inch or greater in diameter at ground level, must be replanted at a ratio prescribed in the guidelines for each stem of each impacted elderberry shrub.

Table 5 below describes the amount of mitigation required for removing the elderberry shrubs in the PA area by applying the mitigation ratios described in the Service's guidelines and Biological Opinion (BO).

Table 5: Compensation Ratios for Affected Elderberry Shrubs

Shrub Location	Stem Diameter (in.)	Exit Holes	Number of Stems	Seedling Ratio	Number of Replacement Elderberries	Associated Native Ratio	Number of Associated Seedlings
Non-Riparian	>1 to <3	No	12	1:1	12	1:1	12
Non-Riparian	>5	No	1	3:1	3	1:1	3
Total Stems Affected			13				
Total Replacement Plantings					15		15
Conservation Credits Proposed for Plantings (total replacement plantings/10)						3	

The *Biological Assessment for Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)* (Caltrans 2015b) was used to initiate Section 7 consultation with the Service. The Service issued a BO (USFWS 2015b) based on the BA and issued a no jeopardy conclusion.

Total VELB mitigation for the PA would entail purchasing VELB mitigation credits from a Service approved mitigation bank sufficient to replant 15 elderberry seedlings or cuttings and 15 associated native species. Each VELB mitigation credit is sufficient to replant 10 elderberry seedlings/cuttings or associated native species, or a combination of both, to meet the mitigation requirements for impacts to VELB. Implementation of the following measure would offset the loss of potential VELB habitat.

The City will be required to purchase three VELB mitigation credits from a Service approved mitigation bank during the permitting phase of the PA prior to the start of construction.

3.6 Cultural Resources

3.6.1 Affected Environment

“Cultural resources” is a broad term that applies to prehistoric and historic-era archaeological sites and structures, components of the built environment, and traditional cultural properties, all of which are associated with human behaviors, economic pursuits, and cultural traditions and beliefs, both past and present. Cultural resources that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) are known as “historic properties.” 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA), requires federal agencies to take into consideration the effects of their undertakings on historic properties. This is accomplished through the Section 106 process as outlined at 36 CFR Part 800.

Efforts to identify historic properties in the Area of Potential Effects (APE) for the proposed undertaking were conducted by Dokken Engineering on behalf of Caltrans, the lead agency for Section 106 compliance for the Green Valley Road Widening Project (Dokken Engineering 2015a). These efforts revealed that the PA is located within the boundaries of the American River Placer Mining District, which previously was determined eligible for NRHP inclusion, and resulted in the identification of one previously unevaluated component of the built-environment within the APE, designated as the Siphon Ditch.

Pursuant to the requirements of the existing Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer (SHPO), and Caltrans, through correspondence dated July 28, 2015, Caltrans entered into consultation with the SHPO regarding the eligibility of potential historic properties within the APE and a finding of No Historic Properties Affected. Specifically, Caltrans determined that the Siphon Ditch is not individually eligible for listing in the NRHP, nor is it a contributor to the NRHP-eligible American River Placer Mining District. Caltrans further determined that the portion of the NRHP-eligible district within the project area no longer retains integrity sufficient to contribute to the eligibility of the district as a whole due to modern development (e.g., residential housing construction, dam and road improvements, and wetland creation).

Through correspondence dated August 27, 2015, the SHPO concurred with the Caltrans finding of No Historic Properties Affected and NRHP eligibility determinations (Appendix F).

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not authorize the road widening project to cross its land and would have no undertaking subject to cultural resources review and compliance. The No Action Alternative would result in no impacts to cultural resources.

Proposed Action

Under the PA, the road widening project would be constructed across Reclamation land. Through the NHPA Section 106 process, no significant cultural resources (i.e., historic properties) were identified in the APE for the proposed federal undertaking. Caltrans, the lead federal agency for Section 106 compliance for the road widening project, consulted with and received SHPO concurrence on a finding of No Historic Properties Affected for the proposed project. Reclamation's PA would result in no significant impacts to cultural resources.

3.7 Air Quality

3.7.1 Affected Environment

The PA area is located in Sacramento and El Dorado Counties, which are located in the Sacramento Valley Air Basin and Mountain Counties Air Basin; respectively. Air quality in these basins is monitored and regulated by the Sacramento Metropolitan Air Quality Management District (SMAQMD) and El Dorado County Air Quality Management District (EDCAQMD). Air basins share a common "air shed", the boundaries of which are defined by surrounding topography. Although mixing between adjacent air basins inevitably occurs, air quality conditions are relatively uniform within a given air basin.

The Federal Clean Air Act (CAA) requires the EPA to designate areas as attainment, nonattainment, or unclassified for the National Ambient Air Quality Standard (NAAQS). These designations are similar to their state-level counterparts. Areas that were nonattainment but have recently achieved attainment are referred to as maintenance areas. On November 30, 1993, the EPA promulgated final general conformity regulations at 40 CFR 93 Subpart B for all federal activities except those covered under transportation conformity. The general conformity regulations apply to a proposed federal action in a non-attainment or maintenance area if the total of direct and indirect emissions of the relevant criteria pollutants and precursor pollutant caused by a proposed action equal or exceed certain emissions thresholds, thus requiring the federal agency to make a conformity determination.

Table 6 provides a summary of the NAAQS attainment status in the vicinity of the PA area for both Sacramento and El Dorado Counties.

Table 6: NAAQS Attainment Status for Sacramento and El Dorado Counties*

Pollutant	Designation/Classification: Federal Standards - Sacramento County	Designation/Classification: Federal Standards – El Dorado County
Ozone – 8-Hour	Nonattainment (Severe 15)	Nonattainment (Severe 15)
Ozone – 1-Hour	Not Applicable	Not Applicable
PM ₁₀	Maintenance (Moderate)	Attainment
PM _{2.5}	Nonattainment (Moderate)	Nonattainment (Moderate)
Carbon Monoxide	Attainment (Maintenance (Moderate))	Attainment (Maintenance (Moderate))
Nitrogen Dioxide	Unclassified/Attainment	Unclassified/Attainment
Sulfur Dioxide	Unclassified	Unclassified
Sulfates	No Federal Standard	No Federal Standard
Lead	Unclassified/Attainment	Unclassified/Attainment
Hydrogen Sulfide	No Federal Standard	No Federal Standard
Visibility Reducing Particles	No Federal Standard	No Federal Standard

* Sources: CARB 2015a and 2015b, EPA 2015a

3.7.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. There would be no impacts to air quality since no construction would take place.

Proposed Action

Construction emissions would vary from day to day and by activity, timing and intensity, and wind speed and direction. Generally, air quality impacts from the PA would be localized in nature.

Short-term air quality impacts would be associated with construction, and would generally arise from dust generation (fugitive dust) and operation of construction equipment. Fugitive dust results from land clearing, grading, excavation, concrete work, and vehicle traffic on paved and unpaved roads. Fugitive dust is a source of airborne particulates, including PM₁₀ and PM_{2.5}. Further, asphalt-paving materials used during construction would present temporary, minor sources of hydrocarbons that are precursors of ozone.

Earth-moving equipment, trucks, and other mobile sources powered by diesel or gasoline are also sources of combustion emissions, including nitrogen oxides (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide, and small amounts of air toxics. Table 6, above, shows the type of equipment and duration of operation estimated for the PA. Table 7 below provides a summary of the estimated emissions (with mitigation) during construction and a comparison to federal and local emission thresholds in tons per year. Construction activities would have short-term, minor effects on traffic congestion in the area, so CO and other emissions from traffic would temporarily increase slightly in the immediate area surrounding the construction site.

The PA's construction is anticipated to take 9 months. Table 7 provides a summary of equipment to be used during construction and estimated durations of operation. The PA's construction emissions were estimated using the Roadway Construction Emissions Model by the SMAQMD 2015, which is the accepted model for all California Environmental Quality Act roadway projects throughout California.

Table 7: Type of Equipment and Duration of Operation for Proposed Action

Type of Equipment	Proposed Use	Number of Equipment	Duration of Operation ¹
Water Truck	Reduces dust/particulate	1	9 months
Crawler Tractor	Pushes dirt	1	4.95 months
Excavator	Removes dirt	2	4.95 months
Grader	Creates flat surface	2	6.70 months
Roller	Compacts soil	2	5.40 months
Scraper	Creates flat surface	2	6.75 months
Rubber Tired Loader	Transports soil	1	4.05 months
Tractor/Loader/Backhoe	Removes soil	3	8.1 months
Air Compressor	Powers some construction devices	1	2.70 months
Generator Set	Powers some construction devices	1	2.70 months
Plat Compactor	Compresses soil	1	2.70 months
Pump	Pumps	1	2.70 months
Rough Terrain Forklift	Lifts materials	1	2.70 months
Paver	Paves roadway (asphalt)	1	1.35 months
Paving Equipment	Assists with roadway paving	1	1.35 months
Signal Board	Traffic Control (alerts public to lane shifts/construction impacts/etc)	2	9 months

¹ Equipment operated 8 hours/day for 5 days/week

Table 8: Proposed Action Emissions and Federal and Local Thresholds*

Pollutant	Estimated Project Construction Emissions	Estimated Project Construction Emissions	Threshold for Federal Conformity Determinations (tons/year)	SMAQMD Significance Thresholds (lbs/day)	EDCAQMD Significance Thresholds
NO _x ¹	80.9 lbs/day	5.4 tons/year	50	85	82 lbs/day
ROG ²	8.1 lbs/day	0.6 tons/year	NONE	NONE	82 lbs/day
PM ₁₀ ³	54.0 lbs/day	4.5 tons/year	100	80	50 µg/m ³ per day
CO	48.1 lbs/day	3.4 tons/year	100	85	20 ppm per hour

* Source: SMAQMD 2014, EDCAQMD 2014

1 = nitrogen oxides

2 = reactive organic gases

3 = particulate matter less than 10 micrometers in diameter

Naturally Occurring Asbestos

The PA area is located in a region where Naturally Occurring Asbestos (NOA) is documented to occur, and earthen material excavated from portions of the PA area would likely include NOA-containing rock and soil and presence is assumed until additional geotechnical findings

confirm these results. NOA potentially poses a health hazard when it becomes an airborne particulate.

The California Air Resources Board (CARB) has mitigation practices for construction, grading, quarrying, and surface mining operations that may disturb natural occurrences of asbestos outlined in the Air Toxicity Control Measure set forth in Title 17 CCR §93105. Title 17 CCR, §93105(e)(4)(G) requires that disturbed asbestos-containing material (0.25 percent asbestos or greater) must be stabilized via options that include paving or covering with at least 3 inches of non-asbestos-containing material (less than 0.25 percent asbestos). Caltrans policy requires that asbestos-containing material must be covered by at least a 6-inch minimum layer of asbestos-free material.

Construction Measures

The Environmental Protection Measures in Appendix G would be implemented as part of the PA to minimize short term construction related air quality emissions including the stabilization of asbestos-containing materials (Dokken Engineering 2015b).

Long-term Emissions

The PA is located in an area designated nonattainment for federal ozone and PM_{2.5} standards and designated maintenance for PM₁₀ (Table 6). As a result, the emissions of most concern are ozone [which includes precursors such as ROG (reactive organic gases) /VOC and NO_x], PM_{2.5} and PM₁₀. As summarized in Table 8, construction activities from the PA would not exceed emission thresholds established by the SMAQMD or EDCAQMD. The PA would also not exceed federal general conformity thresholds; therefore a general conformity analysis is not required.

3.8 Traffic

3.8.1 Affected Environment

According to the City's General Plan, the capacity of the City's arterial system is controlled by the capacities of its signalized intersections and thus the City focuses its analysis on "level of service" (LOS) of signalized intersections. LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, freedom to maneuver, volume, density, and capacity. Six levels are defined, from LOS A, as the best operating conditions, to LOS F, or the worst operating conditions. LOS E represents "at-capacity" operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F.

The City's General Plan shows the existing Green Valley Road as an arterial road. Green Valley Road has already been widened to four lanes north of Sophia Parkway and south of East Natoma Street. The proposed widening is needed as a gap closure Project to complete the ultimate width of the roadway and to connect existing segments of Class II bicycle lanes.

Additionally, the City's General Plan (2035) classifies the intersection of Green Valley Road and East Natoma Street as LOS "C", which is considered as the minimum acceptable operating condition in the City's General Plan. Projections for area growth and traffic indicate that congestion would result if capacity is not increased on this segment of Green Valley Road. This is also consistent with the City's General Plan.

3.8.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. The roadway would remain as two lanes and traffic congestion would increase.

Proposed Action

The PA would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. This takes 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, pedestrians and bicycle paths, and mass transit.

The PA would involve the temporary increase in traffic and lighting along Green Valley Road as a result of construction activities; however, traffic volumes associated with the PA construction are not anticipated to increase to a level that would diminish the level of service beyond existing levels within the area of the project site.

Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan. One lane of traffic in each direction shall remain open except during any overnight work required to transition between construction phases.

3.9 Visual Resources

3.9.1 Affected Environment

Nearby roads are not designated Scenic Highways in the National Scenic Byways Program nor are they State Scenic Highways (Caltrans 2015e), however the PA area is designated as a scenic corridor and a scenic roadway regulated by the City and County. The PA area corridor is defined as the area of land that is visible from, adjacent to, and outside the highway right-of-way, and is determined by topography, vegetation, and viewing distance.

The land cover is characterized by grassland, upland, wetland and woodland vegetation. The existing land is currently vegetated with designated open space to the northeast, as well as highly disturbed residential and commercial areas to the south.

The PA area is bounded by residential homes and commercial businesses on the western extent, but primarily consists of land designated as open space. The PA area has historically been used as open space, and was not developed for residential or commercial use until 1980. The topography of the PA area is relatively flat, and lies approximately 50 feet below the elevation of the Mormon Island Auxiliary Dam, which is along the north side of the roadway. The PA area is within residential homes to the southern-most part of the project.

3.9.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation would not issue the temporary construction permit and perpetual easement and the road widening activities would not occur. The views within and adjacent to the PA area would remain unchanged and temporary visual changes due to road widening construction would not occur.

Proposed Action

A Visual Impact Memorandum for the PA was approved in January 2015 (Caltrans 2015e). As discussed in the memorandum, the PA would slightly alter the visual quality (described using “vividness,” “intactness,” and “unity”) of the existing corridor. Although the PA area is located within a scenic corridor, the existing vividness of the area is moderately-low because the site consists of a disturbed ruderal vegetated dredge disposal site with clusters of trees and it lacks distinctive or memorable features. Intactness of the site is moderately-low as the PA area is largely disturbed from dirt paths and uneven topography. Unity in the PA area is moderately-low due to the contrast between the suburban residential development and the open vegetated PA area. Overall visual impacts would be moderately-low, considering viewers (residents and motorists) are anticipated to have a moderately-low response to the change in the view because of the partially obscured Project site. The proposed roadway is consistent with current land use, complies with both the City and County ordinances, and would not adversely affect any viewer group. Additionally, Green Valley Road is not designated as a State Scenic Highway or as a National Scenic Byway.

The road widening would require the removal of vegetation within the PA area. Approximately 31 mature trees, consisting of 41 total stems, along the southern edge of the roadway would be removed. There are approximately 14 protected trees that would be removed. The removal of seven of these trees, as well as one Fremont cottonwood, requires mitigation as described in *3.5.1 Natural Communities*. Tree protection zones would be established to avoid project impacts to protected trees located along the extent of project construction footprint.

Temporary lights would be located along the roadway during construction and would be aimed away from Mormon Island Wetlands Natural Preserve as to not disrupt nocturnal wildlife behavior. These added light sources are not anticipated to result in substantial light and glare impacts because this would minimally increase the amount of ambient light existing viewer groups already experience.

Construction

Construction of the PA would temporarily change views experienced by drivers, pedestrians, and other people in the PA area since construction equipment would be visible from neighboring areas. Additionally, grading activities may expose soils. Temporary impacts due to PA construction would be short-term and would cease upon completion. Visible short-term fugitive dust associated with construction would be reduced through the implementation of dust suppression measures outlined within Caltrans Standard Specifications for Construction, such as Section 10 and 18 (Dust Control). Adhering to Caltrans Standard Specifications for Construction would also minimize visual impacts through the use of opaque temporary construction fencing that would be situated around construction staging areas.

The following environmental protection measures would be implemented:

- Per Caltrans standards regarding erosion control, exposed slopes would be re-vegetated.
- Vegetation clearing would only occur within the delineated PA area boundaries in an effort to minimize the impacts. Trees located in areas along the edge of the construction zone would be trimmed whenever possible and only those trees that lie within the active construction areas would be removed.
- Construction lighting types, plans, and placement shall comply with Caltrans and local standards in order to minimize light and glare impacts on surrounding sensitive users, including wildlife.

3.10 Noise

3.10.1 Affected Environment

The noise environment near the PA area is dominated by traffic sources. Background noise levels are influenced by Green Valley Road and East Natoma Street existing surrounding residential, commercial, and recreational uses. Traffic remains the dominant noise source at the project site. A noise study report was prepared in May 2015, to determine potential noise impacts caused by traffic and construction due to the PA (Caltrans 2015c).

Five noise monitors were placed throughout the PA area to gather data for modeling current and future noise impacts. Single-family residences were identified as Activity Category B land uses in the PA area, located near East Natoma Street at the western end of the PA area. These land uses were represented by monitors R-3/ST-3, R-4/ST-4, and R-5 and were found to have existing noise levels during the day ranging from 59-60 dB A L_{eq} . Recreational land uses, described as Activity Category C, were located in the Mormon Island Wetlands Natural Preserve and a small neighborhood park at Ballou Circle. These land uses were represented by monitors R-1 and R-2/ST-2 and were found to have existing noise levels during the day ranging from 52-54 dB A L_{eq} (Caltrans 2015c).

3.10.2 Environmental Consequences

No Action

No construction activities would occur under the No Action Alternative, thus no construction-related noise would be generated.

Proposed Action

The design year traffic noise modeling results from the PA range from 57 to 63 dB A $L_{eq}(h)$ during the worst noise hour (Caltrans 2015c). The increase does not exceed the Caltrans noise abatement criteria of 67 dB A for recreational and residential land users. The portion of the project area within the County is classified as both Commercial and Residential; however, the Residential area is located within the Mormon Island Wetlands Natural Preserve. Further, Commercial land use does not have an exterior noise level threshold.

No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with the City's exterior noise standards. Under Chapter 8.42, Section 060 (d) of the City's Municipal Code, noise sources associated with construction are exempt from the City's exterior noise level standards, provided such activities do not take place before 7 a.m. or after 6 p.m. on any day except Saturday or Sunday, or before 8 a.m. or after 5 p.m. on Saturday or Sunday.

Potential noise impacts would be minimized through the implementation of the following measures:

- Construction would be conducted in accordance with Caltrans Standard Specifications Section 14.8-02 "Noise Control," which states the following:
 - Do not exceed 86 dB A L_{max} at 50 feet from the job site activities from 9 p.m. to 6 a.m.
- Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

As feasible, construction of the project would be scheduled between 7 a.m. and 6 p.m. on weekdays and between 8 a.m. and 5 p.m. on Saturday or Sunday, to minimize exterior noise levels. If construction is needed outside of this timeframe, a variance from the City is required and would be obtained per the City's Municipal Code, Chapter 8.42 Noise Control, Section 8.42.090-Variations.

3.11 Cumulative Impacts

According to the CEQ regulations for implementing the procedural provisions of NEPA, a cumulative impact is defined as: *The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable*

future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

GHG impacts are considered to be cumulative impacts since any increase in GHG emissions would add to the existing inventory of gases that could contribute to climate change. The estimated GHG emission due to temporary PA construction activities is 696 metric tons of carbon dioxide equivalents. There would be no on-going operational emissions from the PA. One of the more commonly suggested mass emissions thresholds is 25,000 metric tons of carbon dioxide equivalents/year. This value has been selected because it is the threshold established for mandatory emissions reporting for most sources in California under Assembly Bill (AB) 32. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. Since the amount of GHGs emitted from the PA would be well below 25,000 metric tons/year, no report is required to be submitted to the EPA and CARB.

The MIAD Modification Project in combination with the Green Valley Road Widening Project could affect the hydrology of the wetlands within the Mormon Island Wetlands Natural Preserve. Together, these projects have the potential to create significant cumulative impacts to the wetlands. Mitigation for the MIAD Modification Project includes monitoring the wetlands to determine the hydrologic effects, and corrective actions to either provide additional water to the wetlands, or mitigate for any unavoidable impacts. The PA activities have the potential to adversely affect the results of ongoing MIAD Modification Project wetlands monitoring.

No other projects in the vicinity of the PA area are anticipated which would contribute to cumulative effects. There is no open space available within the PA area for residential or commercial development since the majority of the PA area is Reclamation owned land within the Mormon Island Wetlands Natural Preserve. Future development may occur outside of the PA area vicinity and mitigation would be required for any unavoidable impacts.

Section 4 Consultation

4.1 Endangered Species Act (16 U.S.C. § 1531 et seq.)

Section 7 of the Endangered Species Act requires federal agencies, in consultation with the Secretary of the Interior and/or Commerce, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species. The *Biological Assessment for Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)* was used to initiate Section 7 consultation with the Service. The Service issued a BO on August 3, 2015, based on the BA and issued a no jeopardy conclusion.

4.2 Clean Water Act (16 U.S.C. § 703 et seq.)

Section 401

Section 401 of the CWA (33 U.S.C. § 1311) prohibits the discharge of any pollutants into navigable waters, except as allowed by permit issued under sections 402 and 404 of the CWA (33 U.S.C. § 1342 and 1344). If new structures (e.g., treatment plants) are proposed, that would discharge effluent into navigable waters, relevant permits under the CWA would be required for the project applicant(s).

Section 401 requires any applicant for an individual USACE dredge and fill discharge permit to first obtain certification from the State that the activity associated with dredging or filling would comply with applicable state effluent and water quality standards. This certification must be approved or waived prior to the issuance of a permit for dredging and filling. The City applied for a Water Quality Certification from the RWQCB on October 6, 2015. Issuance of any temporary or permanent land use permits from Reclamation is contingent upon the City receiving the Water Quality Certification.

Section 404

Section 404 of the CWA authorizes the USACE to issue permits to regulate the discharge of “dredged or fill materials into waters of the United States” (33 U.S.C. § 1344).

The PA would involve the City obtaining permits for the following activities: dredging of 2,112.6 cubic yards of existing soil material and discharge of 2,112.6 cubic yards of aggregate base. In order to construct the PA, the roadway would extend south into waters of the U.S. The existing soil would need to be dredged and would be unsuitable for use as road base. Therefore, aggregate material would be brought in to replace the removed soil. Additionally, existing culverts would be replaced with improved culverts (Figure 4). The City received a Nationwide Permit (NWP) 14 (Linear Transportation Projects) verification letter from the Sacramento District Corps of Engineers on February 19, 2016. Construction under the NWP requires that the City first receive their Water Quality Certification from the RWQCB.

4.3 Clean Air Act (42 U.S.C. § 7401 et seq.)

Section 176 (C) of the CAA (42 U.S.C. 7506 (C)) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable State Implementation Plan (SIP) required under Section 110 (a) of the Federal CAA (42 U.S.C. 7401 (a)) before the action is otherwise approved. In this context, conformity means that such federal actions must be consistent with SIP’s purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of those standards. Each federal agency must determine that any action that is proposed by the agency and that is subject to the regulations implementing the general conformity requirements would, in fact conform to the applicable SIP before the action is taken. The PA is consistent with the SIP based on Caltrans’ air quality analysis.

4.4 Department of Transportation Act of 1966 (49 U.S.C. § 301 et seq.)

The Department of Transportation (DOT) Act of 1966 includes a special provision, Section 4(f), which stipulates that the Federal Highway Administration (FHWA) and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites unless the following conditions apply: 1) there is no feasible and prudent avoidance alternative to the use of land; and 2) the action includes all possible planning to minimize harm to the property resulting from such use; or 3) the FHWA determines that the use of the property would have a *de minimis* impact.

The PA would involve temporary occupancy as well as permanent use of the Mormon Island Wetlands Natural Preserve, a subunit of FLSRA and Reclamation's O&M access road within the preserve. On November 3, 2015, Reclamation concurred that the PA would have permanent impacts to the FLSRA and O&M access road as recreational resources but that the Section 4(f) use of the FLSRA and access road would be *de minimis*.

4.5 Folsom Lake State Recreation Area and Folsom Powerhouse State Historic Park General Plan/Resource Management Plan

As described in Section 3.3, Land Use, the FLSRA has a GP/RMP in place that describes goals and guidelines for continued management of FLSRA's natural and cultural resources. Since Reclamation owns the land within the PA area and California State Parks manages the land within FLSRA, both agencies have been actively coordinating throughout project development. Through this coordinated effort, California State Parks and Reclamation have ensured that the PA would not conflict with the current GP/RMP. Where conflict exists, environmental protection measures have been established to mitigate any impacts to FLSRA, specifically within the Mormon Island Wetlands Natural Preserve. This coordination effort has resulted in onsite tree mitigation that would conform to the GP/RMP and meet the City's tree ordinance and the creation of enhanced recreational access to the preserve.

Section 5 References

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Appendix A

Indian Trust Assets Concurrence

Indian Trust Assets Request Form (MP Region)

Submit your request to your office's ITA designee Marissa Novoa at mnovoa@usbr.gov.

Date: September 3, 2015

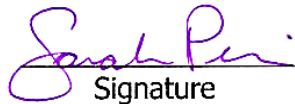
Table 9: Request Submittal Information

Requested by (office/program)	CCAO – CC-419
Fund	15XR0680A2
WBS	RX.03534999.2300000
Fund Cost Center	RR02430000
Region # (if other than MP)	CCAO
Project Name	Green Valley Road Widening Project
CEC or EA Number	CCAO-EA-15-08
Project Description (attach additional sheets if needed and include photos if appropriate)	See attached Proposed Action description
*Project Location (Township, Range, Section, e.g., T12 R5E S10, or Lat/Long cords, DD-MM-SS or decimal degrees). Include map(s)	Sections 21, 28, and 29; Township 10N; Range 8E Latitude: 38.69823, Longitude: -121.11347

ITA Determination: CCAO-EA-15-08

The closest ITA to the proposed **Green Valley Road Widening** activity is the Shingle Springs, **Shingle Springs Band of Miwok Indians** about **10.69** miles to the east and slightly south (see attached image).

Based on the nature of the planned work it does / does not appear to be in an area that will impact Indian hunting or fishing resources or water rights nor is the proposed activity on actual Indian lands. It is reasonable to assume that the proposed action will / will not have any impacts on ITAs.


Signature

Sarah Perrin

Printed name of approver

9/14/2015

Date

Proposed Action

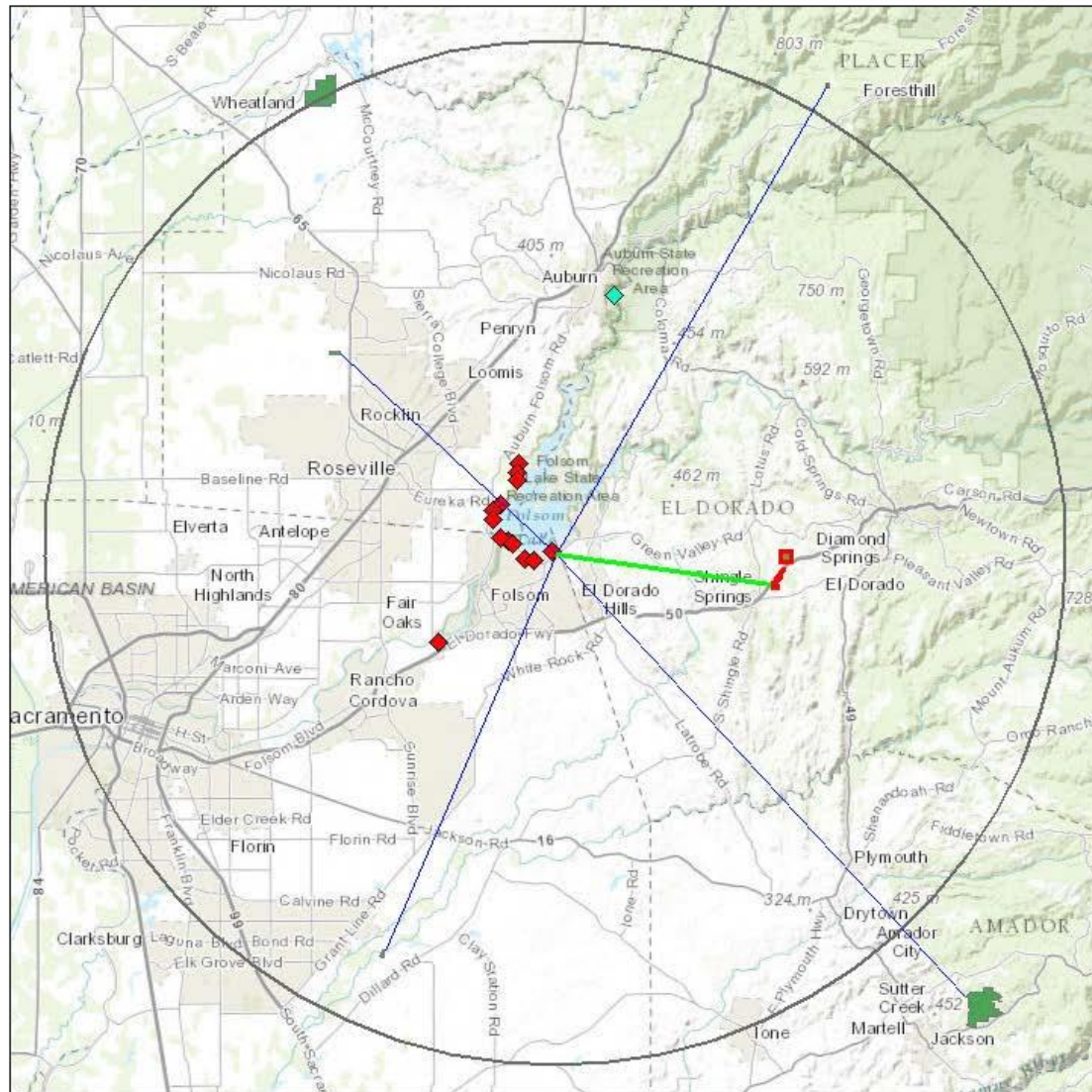
The Proposed Action would provide for the widening of the existing two lane segment of Green Valley Road between East Natoma Street and Sophia Parkway to provide the ultimate 4-lane width of Green Valley Road. Proposed roadway dimensions include 12 foot-wide through lanes, an 11 foot-wide dual left turn lane, and two 8 foot-wide standard shoulders/class II bike lanes. These widths add up to 75 feet leaving 5 feet for a public utility easement on the north side of the road. The existing roadway easement held by the City identifies an 80 foot wide corridor through Reclamation property. Construction of the widened roadway would require the existing 80 foot wide easement to be shifted to the south. To accomplish this, Reclamation would issue the City a land use agreement under a 25 year license for the as-built 80 feet of right-of-way of Green Valley Road. In addition, Reclamation would grant a permanent easement to the City in the future and modify the existing easement area along the north side of Green Valley Road based on the widened roadway width.

The Proposed Action would also improve the Shadowfax Lane intersection; improve the permanent Reclamation driveways along the roadway corridor; improve the siphoning along the curve of Green Valley Road; update roadway drainage, including enhancement of culverts; repair of existing culverts south of the roadway along the Humbug-Willow Creek Trail; and enhance the existing parking and access area to Mormon Island Wetlands Natural Preserve. Property access and vehicle turning movements would also be enhanced as a component of the Proposed Action. The Proposed Action anticipates replacing the existing siphon beneath Green Valley Road with an open-bottom box culvert to provide better drainage and water flow to the wetlands.

There are several utilities along Green Valley Road including above ground communication and electrical distribution lines along the northern and western side of Green Valley Road, underground electrical distribution lines, underground natural gas pipelines, underground water pipelines, underground telecoms, and underground sewer pipelines. Utility poles associated with the above ground communication and electrical lines which are located along the northern extent of Green Valley Road are not anticipated to be impacted by the Proposed Action. Minor underground utility adjustments will occur during construction.

Additional components of the Proposed Action include equipment and material storage/staging areas, metal beam guardrail installation, and tree removal. Best management practices and measures would be used to minimize impacts to the adjacent wetlands within the Mormon Island Wetlands Natural Preserve and ongoing construction activities at the Mormon Island Auxiliary Dam (MIAD).

ITA Map CCAO-EA-15-08



- Dams**
- ◆ Selected Non-Reclamation Dams
 - ◆ Reclamation Dams
- Native American Lands FL**
- PDA
 - Rancheria
 - Region Boundaries

1:577,791

RECLAMATION
Managing Water in the West

Figure 7: Indian Trust Assets Map CCAO-EA-15-08

Appendix B

Water Resources Environmental Protection Measures

The following Best Management Practices (BMPs) would be included on applicable plans prepared for the PA to avoid and minimize impacts to water resources.

- The area of construction and disturbance would be limited to as small an area as feasible to reduce erosion and sedimentation.
- Measures would be implemented during land-disturbing activities to reduce erosion and sedimentation. These measures may include mulches, soil binders and erosion control blankets, silt fencing, fiber rolls, temporary berms, sediment de-silting basins, sediment traps, and check dams.
- Existing vegetation would be protected where feasible to reduce erosion and sedimentation. Vegetation would be preserved by installing temporary fencing, or other protection devices, around areas to be protected.
- Exposed soils would be covered by loose bulk materials or other materials to reduce erosion and runoff during rainfall events.
- Exposed soils would be stabilized, through watering or other measures, to prevent the movement of dust at the Project site caused by wind and construction activities such as traffic and grading activities.
- All construction roadway areas would be properly protected to prevent excess erosion, sedimentation, and water pollution.
- All vehicle and equipment maintenance procedures would be conducted offsite. In the event of an emergency, maintenance would occur away from the tributary to Humbug Creek.
- All concrete curing activities would be conducted to minimize spray drift and prevent curing compounds from entering the waterway directly or indirectly.
- All construction materials, vehicles, stockpiles, and staging areas would be situated outside of the stream channel as feasible. All stockpiles would be covered, as feasible.
- Energy dissipaters and erosion control pads would be provided at the bottom of slope drains. Other flow conveyance control mechanisms may include earth dikes, swales, or ditches. Stream bank stabilization measures would also be implemented.
- All erosion control measures and stormwater control measures would be properly maintained until the site has returned to a pre-construction state.
- All disturbed areas would be restored to pre-construction contours and revegetated, either through hydro-seeding or other means, with native or approved non-invasive exotic species.
- All construction materials would be hauled off-site after completion of construction.
- The PA would require a National Pollutant Discharge Elimination System (NPDES) General Construction Permit for Discharges of stormwater associated with construction activities (Construction General Permit 2012-0006-DWQ). A Storm Water Pollution Prevention Plan (SWPPP) and a Spill Prevention, Control, and Countermeasure Plan would also be developed and implemented as part of the Construction General Permit.
- The construction contractor shall adhere to the State Water Resources Control Board Order Number 2012-0006-DWQ NPDES Permit pursuant to Section 402 of the CWA. This permit authorizes storm water and authorized non-storm water discharges from construction activities. As part of this Permit requirement, a SWPPP shall be prepared prior to construction consistent with the requirements of the RWQCB. This SWPPP

would incorporate all applicable BMPs to ensure that adequate measures are taken during construction to minimize impacts to water quality.

- Post-construction stormwater control requirements would be addressed in accordance with Caltrans' MS4 permit for areas within Caltrans right-of-way. Permanent treatment control BMPs would be evaluated based on effectiveness and feasibility and incorporated into the final design as applicable.
- Stormwater systems would be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources.

Appendix C

Biological Resources: Wetlands and Other Waters Environmental Protection Measures

The PA has been designed to avoid and minimize temporary and permanent impacts to Waters of the U.S. and Waters of the State to the maximum extent practicable. The following avoidance and minimization measures and BMPs would be implemented to minimize construction impacts to Waters of the U.S. and Waters of the State within the PA area and regional water quality:

Contract Specifications

Contract specifications would include the following BMPs, where applicable, to reduce erosion during construction:

- Construction of the PA would require approval of a site-specific SWPPP that would implement effective measures to protect water quality, which may include a hazardous spill prevention plan and additional erosion prevention techniques;
- Existing vegetation would be protected in place where feasible to provide an effective form of erosion and sediment control;
- Stabilizing materials would be applied to the soil surface to prevent the movement of dust from exposed soil surfaces on construction sites as a result of wind, traffic, and grading activities;
- Roughening and terracing would be applied to create unevenness on bare soil through the construction of furrows running across a slope, creation of stair steps, or by utilization of construction equipment to track the soil surface. Surface roughening or terracing reduces erosion potential by decreasing runoff velocities, trapping sediment, and increasing infiltration of water into the soil, and aiding in the establishment of vegetative cover from seed.

SWPPP

To conform to water quality requirements, the SWPPP must include the following:

- Vehicle maintenance, staging and storing equipment, materials, fuels, lubricants, solvents, and other possible contaminants must be a minimum of 100 feet from surface waters. Any necessary equipment washing must occur where the water cannot flow into surface waters. The PA specifications would require the contractor to operate under an approved spill prevention and clean-up plan;
- Construction equipment would not be operated in flowing water;
- Construction work must be conducted according to site-specific construction plans that minimize the potential for sediment input to surface waters;
- Raw cement, concrete or concrete washings, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to aquatic life shall be prevented from contaminating the soil or entering surface waters;
- Equipment used in and around surface waters must be in good working order and free of dripping or leaking contaminants; and,
- Any concrete rubble, asphalt, or other debris from construction must be taken to an approved disposal site.

Impacts to Wetlands

- Based on the NWP letter, permanent impacts to 0.45 acres of Waters of the U.S. would be mitigated by the City through purchasing 0.86 credits of Fresh Emergent Wetland habitat and 0.04 credits of Riparian habitat at Consumnes Floodplain Mitigation Bank. Evidence of this purchase shall be provided to USACE prior to initiation of construction activities within Waters of the U.S.
- Should a temporary haul road/construction access road through the wetlands/US Waters of the U.S./Waters of the State be deemed necessary by the construction contractor to construct a portion of the PA, the road shall consist solely of Temporary Wetland Protection Mats. Temporary Wetland Protection Mats are devices placed temporarily on a wetland to minimize damage to the wetland soils and habitat and shall be installed by the construction contractor. No wetland soil shall be excavated to construct the temporary haul road/construction access road and no dirt shall be brought in to construct a temporary haul road/construction access road. When construction within the wetlands/Waters of the U.S./Waters of the State is complete, the Temporary Wetland Protection Mats shall be removed by the construction contractor.

Appendix D

Special-Status Species Table

Appendix Table 1: Special Status Species Table

Common Name	Scientific Name	Status ¹	Effect ²	Summary of Effects Determination ³
Plants				
El Dorado bedstraw	<i>Galium californicum</i> <i>ssp. Sierra</i>	E	NE	No suitable habitat in PA area. Nearest CNDDDB ⁴ occurrence 5 miles from PA area.
Layne's ragwort	<i>Packera layneae</i>	T	NE	No suitable habitat in PA area. Nearest CNDDDB occurrence more than 5 miles from PA area and more than 20 years old.
Pine Hill ceanothus	<i>Ceanothus roderickii</i>	E	NE	No suitable habitat in PA area. Nearest CNDDDB occurrence more than 5 miles from PA area.
Pine Hill flannelbush	<i>Fremontodendron decumbens</i>	E	NE	No suitable habitat in PA. Nearest CNDDDB occurrence more than 5 miles from PA area.
Sacramento Orcutt grass	<i>Orcuttia viscida</i>	E	NE	No suitable habitat in PA. Nearest CNDDDB occurrence more than 4 miles from PA area.
Stebbins' morning-glory	<i>Calystegia stebbinsii</i>	E	NE	No suitable habitat in PA area.
Invertebrates				
Valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	T	NLAA	PA area within range of VELB and elderberry shrubs are present. Two clumps of elderberry shrubs observed during surveys, no exit holes observed.
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	NE	No suitable vernal pool habitat in PA area. Not documented during Reclamation studies at Mormon Island Wetland Preserve.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E	NE	Potential wetland habitat in PA area but outside of species current range.
Amphibians				
California red-legged frog	<i>Rana draytonii</i>	T	NE	No suitable aquatic habitat in PA area. Nearest CNDDDB ⁴ occurrence approximately 3 miles from PA area. Not documented during Reclamation studies at Mormon Island Wetland Preserve.
California tiger salamander	<i>Ambystoma californiense</i>	T	NE	Potentially suitable low quality upland habitat present in PA area. Nearest CNDDDB occurrence more than 10 miles from PA area.
Reptiles				
Giant garter snake	<i>Thamnophis gigas</i>	T	NE	No suitable aquatic habitat in PA area and outside of current distribution. Nearest CNDDDB occurrence more than 10 miles from PA area.
Fish				
Delta smelt	<i>Hypomesus transpacificus</i>	T	NE	PA area outside of current and historic range. No suitable habitat and no occurrences in PA area.
Steelhead – Central Valley Distinct Population Segment (DPS)	<i>Oncorhynchus mykiss irideus</i>	T	NE	No suitable aquatic habitat in PA area.
Birds				
Bald eagle	<i>Haliaeetus leucocephalus</i>	D, MBTA, BCC, BGEPA	NLAA	Marginal potential roosting habitat present within 1 mile of PA area but lacks preferred ponderosa pine habitat. Recent CNDDDB occurrence within 5 miles of PA area.

Common Name	Scientific Name	Status¹	Effect²	Summary of Effects Determination³
California black rail	<i>Laterallus jamaicensis coturniculus</i>	MBTA, BCC	NE	No suitable habitat in PA area. Nearest CNDDB occurrence more than 10 miles from PA area.
Calliope hummingbird	<i>Stellula calliope</i>	MBTA, BCC	NE	No suitable habitat in PA area.
Cooper's hawk	<i>Accipiter cooperii</i>	MBTA	NLAA	Low quality nesting habitat in PA area.
Costa's hummingbird	<i>Calypte costae</i>	MBTA, BCC	NE	No suitable habitat in PA area and outside of species range.
Double-crested cormorant	<i>Phalacrocorax auritus</i>	MBTA	NLAA	Low quality nesting and foraging habitat outside of PA area at Folsom Lake.
Flammulated owl	<i>Otus flammeolus</i>	MBTA, BCC	NE	No suitable habitat in PA area.
Fox sparrow	<i>Passerella iliaca</i>	MBTA, BCC	NLAA	Low quality foraging habitat in PA area, no suitable breeding habitat.
Golden eagle	<i>Aquila chrysaetos</i>	MBTA, BGEPA	NE	No suitable habitat in PA area. Nearest CNDDB occurrence less than 3 miles from PA area on sparsely wooded hill slope overlooking a valley.
Great blue heron	<i>Ardea herodias</i>	MBTA	NLAA	Low quality habitat in wetlands of PA area.
Great egret	<i>Ardea alba</i>	MBTA	NLAA	Low quality habitat in wetlands of PA area.
Green-tailed towhee	<i>Pipilo chlorurus</i>	MBTA, BCC	NE	No suitable habitat in PA area.
Lewis's woodpecker	<i>Melanerpes lewis</i>	MBTA, BCC	NLAA	Low quality wintering habitat in PA area.
Loggerhead shrike	<i>Lanius ludovicianus</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.
Merlin	<i>Falco columbarius</i>	MBTA	NLAA	Low quality wintering habitat in PA area.
Nuttall's woodpecker	<i>Picoides nuttallii</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.
Oak titmouse	<i>Baeolophus inornatus</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.
Peregrine falcon	<i>Falco peregrinus</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.
Short-eared owl	<i>Asio flammeus</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.
Snowy plover	<i>Charadrius alexandrinus</i>	MBTA, BCC	NE	No suitable habitat in PA area.
Swainson's hawk	<i>Buteo swainsoni</i>	MBTA, BCC	NLAA	Fragmented and disturbed foraging and nesting habitat in PA area and no recent observations within 10 miles.
Tricolored blackbird	<i>Agelaius tricolor</i>	MBTA, BCC	NE	No suitable habitat in PA area. No recent CNDDB occurrences within 10 miles of PA area.
Western burrowing owl	<i>Athene cunicularia hypogaea</i>	MBTA, BCC	NE	No suitable habitat in PA area. Nearest CNDDB occurrence 4 miles from PA area.
White-headed woodpecker	<i>Picoides albolarvatus</i>	MBTA, BCC	NE	No suitable habitat in PA area.
White-tailed kite	<i>Elanus leucurus</i>	MBTA	NLAA	Suitable foraging habitat in PA area. Nearest CNDDB occurrence less than 2 miles from PA area.
Williamson's sapsucker	<i>Sphyrapicus thyroideus</i>	MBTA, BCC	NE	No suitable habitat in PA area.
Yellow-billed magpie	<i>Pica nuttalli</i>	MBTA, BCC	NLAA	Low quality habitat in PA area.

¹ Status = Listing of federally special status species, unless otherwise indicated

BCC: Birds of Conservation Concern

BGEPA: Birds protected by the Bald and Golden Eagle Protection Act

D: Delisted

E: Listed as Endangered

MBTA: Birds protected by the Migratory Bird Treaty Act

T: Listed as Threatened

² Effects = Effect determination

NE: No Effect to federally listed species anticipated from the Proposed Action

NLAA: Not Likely to Adversely Affect with Environmental Protection Measures

MA: May Affect federally listed species

³ Summary of rationale supporting determination

⁴ CNDDB = California Natural Diversity Database 2015

Appendix E

Biological Resources: Wildlife Species Environmental Protection Measures

With the implementation of the following measures, impacts to special-status wildlife are not anticipated.

- Before any activities begin on the PA, the Project biologist would conduct environmental awareness training for all construction personnel. At a minimum, the training would include a description of sensitive species with potential to occur, their habitat, the Project specific measures being implemented to conserve the species, and the boundaries within which the PA may be accomplished.
- A pre-construction clearance survey would be conducted by the Project biologist to verify that no wildlife is located within the PA area before installing exclusion fencing.
- Animal exclusion fencing or impassible barriers would be installed where the PA area intersects riparian and wetland habitat to prevent wildlife access to the construction site or encroachment by construction activities into those areas.
- If during construction any sensitive species are found, construction would stop within the area and the animal would be allowed to leave the PA area.
- Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife must not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydro-seeding compounds.
- The contractor must not apply rodenticide or herbicide within the project area during construction.
- The contractor must dispose of all food-related trash in closed containers, and must remove it from the project area each day during construction. Construction personnel must not feed or attract wildlife to the project area.
- Reclamation's *Nesting Bird Avoidance and Monitoring Measures for Vegetation Removal and Construction Activities in CCAO* must be followed for all vegetation removal and construction activities within the PA area. Please see the attached measures for more detail.

Nesting Bird Avoidance and Monitoring Measures for Vegetation Removal and Construction Activities in CCAO

Federal Action: Authorization of Vegetation Removal and Construction Activities on Federal Lands

These measures apply to vegetation removal and construction activities at all facilities and lands managed within the Bureau of Reclamation, Mid-Pacific Region, Central California Area Office. Vegetation removal, trimming, grading of vegetated areas, and construction activities associated with the Proposed Action should be conducted outside of the nesting season (between September 1 and February 28) to the maximum extent practicable. If this is not done, the following measures are required to avoid impacts to active nest sites protected by the Migratory Bird Treaty Act (MBTA):

- If vegetation removal, vegetation trimming, or construction activities are initiated during the nesting season (typically between March 1 to August 31) (Reclamation 2013), a pre-construction nesting survey shall be conducted by a qualified biologist¹ no more than five days prior to the scheduled activity.
 - If no birds are observed nesting within 500 feet of project activities, the biologist would document the results of the pre-construction survey in a report and send it to the address below within 30 days following the survey. No further monitoring will be required.

Bureau of Reclamation
Central California Area Office
Attn: CC-400
7794 Folsom Dam Road
Folsom, CA 95630-1799
 - If an active nest or breeding behavior (e.g., courtship, nest building, territorial defense, etc.) is detected during surveys, no project activities should be conducted until nestlings have fledged, the nest fails, or breeding behaviors are no longer observed. The biologist shall contact Reclamation by phone or email within one day following the survey. If the activity must occur, an appropriate buffer based on the needs of the species observed, the proposed activity, and habitat type shall be established around the nest (generally no less than a 50 foot buffer zone). The

¹ A person is considered a qualified biologist for the purposes of conducting pre-construction nesting bird surveys if they fulfill the following requirements: completion of a 4-year degree from an accredited university in wildlife biology or natural resources; demonstrated field identification capabilities; and knowledge of the basic life history of western bird species.

biologist would delineate the buffer zone with construction tape or pin flags to identify the buffer zone of the active nest. The biologist would submit a report documenting the pre-construction survey results, buffer determinations, and actions taken to the above address within 30 days following the survey.

- In the event that project activities cause a nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, the buffer zone will be increased such that activities are far enough from the nest to stop the agitated behavior. The buffer zone will remain in place until the chicks have fledged and left the area or as otherwise determined by a qualified biologist. The biologist would submit a report documenting the new buffer determination and actions taken to the above address within 30 days following the establishment of the new buffer.
- Guidance from the USFWS would be requested for a reduced buffer zone if establishing a 50-foot buffer zone is impractical.
- If the project site is inactive at any time for more than 7 days or if a new breeding season has begun during construction inactivity, another nesting survey shall be conducted prior to re-initiation of work onsite. Exclusionary netting, or another type of exclusionary material, can be installed over standing equipment and materials to prevent nesting from being initiated during construction inactivity. The installation of exclusionary materials shall be monitored by a qualified biologist and inspected daily for the duration of the exclusion period to minimize potential harm or injury to birds.¹
- Even though a pre-construction survey is not required outside of the nesting season (between September 1 and February 28), if an active nest is observed within the project site during that timeframe, no project activities should be conducted until nestlings have fledged, the nest fails, or breeding behaviors are no longer observed. The qualified biologist shall contact Reclamation by phone or email within one day following the nest observation. If the activity must occur, an appropriate buffer based on the needs of the species observed, the proposed activity, and habitat type shall be established around the nest (generally no less than a 50 foot buffer zone). The biologist would delineate the buffer zone with construction tape or pin flags to identify the buffer zone of the active nest. The biologist would submit a report documenting the nest location information and buffer determination to Reclamation's CCAO office within 30 days following the discovery of the nest.
- If Swainson's hawks (*Buteo swainsoni*) are known to occur within ½ mile of the project area, surveys would be conducted according to Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000) prior to conducting any vegetation removal, vegetation trimming, or construction activities.

¹ In the event that a bird requires extraction from exclusionary material, the qualified biologist is required to be in possession of a federal migratory bird permit to allow for handling activities.

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) prohibits take of bald (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*), including their parts, nests, or eggs. For guidance regarding bald and golden eagle protection, the National Bald Eagle Management Guidelines (USFWS 2007) and Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations (Pagel et al. 2010) shall be followed.

References

Bureau of Reclamation (Reclamation). 2013. Avian Monitoring Study Results – 2013. Folsom Dam Safety/Flood Damage Reduction Project, Folsom, CA. December 2013.

Pagel, J.E., D.M. Whittington, and G.T. Allen. 2010. Interim Golden Eagle inventory and Monitoring Protocols; and Other Recommendations. Division of Migratory Bird Management, U.S. Fish and Wildlife Service

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

U.S. Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. May 2007.

Appendix F

Cultural Resources Concurrence

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 3
703 B STREET
MARYSVILLE, CA 95901
PHONE (530) 741-7113
FAX (530) 741-4457
TTY (530) 741-4509
TTY 711
www.dot.ca.gov/district3



Serious drought
Help save water!

July 28, 2015

Julianne Polanco
State Historic Preservation Officer
1725 23rd Street, Suite 100
Sacramento, CA 95816

Green Valley Widening Project
City of Folsom, Sacramento County
STPL 5288(040)

Re: Historic Property Survey Report and Determination of Eligibility for the Green Valley Road Widening Project, City of Folsom, Sacramento County—Section 106 Compliance

Dear Ms. Polanco:

The City of Folsom in cooperation with the California Department of Transportation (Caltrans), El Dorado County, and the Bureau of Reclamation propose to widen a portion of Green Valley Road from two lanes to four in the City of Folsom, Sacramento County. A full project description can be found on page one of the enclosed Historic Property Survey Report (HPSR) and a depiction of the Area of Potential Effects (APE) is attached to it (Attachment 1). Caltrans is initiating consultation for the project with the State Historic Preservation Officer (SHPO) in accordance with the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

Enclosed you will find an HPSR for the proposed undertaking with attached Archaeological Survey Report (ASR) and Historic Resources Evaluation Report (HRER). We are consulting with you at the present time under Stipulation VIII.C.6 of the PA, which requires that we seek your concurrence on Caltrans' determinations of eligibility for potential historic properties.

Caltrans is transmitting this study as a federal agency, following the provisions of 23 USC 327 and the *Memorandum of Understanding (MOU) between the Federal Highway Administration, California Division and the California Department of Transportation State Assumption of Responsibility for Categorical Exclusions*, which became effective on June 7, 2007, and was renewed on June 7, 2010. Please direct all future correspondence on this project to Caltrans. The Bureau of Reclamation has delegated Caltrans the lead for purposes of Section 106 compliance on this project.

*Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability*

Figure 8: Department of Transportation Letter Regarding Green Valley Road Widening Project – Page 1

Ms. Julianne Polanco
July 28, 2015
Page 2 of 2

Consultation and identification efforts for this project resulted in the identification of one previously unevaluated built-environment cultural resource within the APE:

- Siphon Ditch (P-34-4985/CA-SAC-1201H): identified by a yellow line, Map Reference 3 in the APE map

Efforts also determined the project occurs within one National Register of Historic Places (NRHP) eligible district:

- American River Placer Mining District (P-34-0335/CA-SAC308H): not identified on the APE map; includes the entirety of the City of Folsom, portions of Folsom Lake, and stretches south of Highway 50 and west to Rancho Cordova

No archaeological resources were identified within the APE.

Pursuant to Stipulation VIII.C.6 of the PA, Caltrans is requesting your concurrence that the Siphon Ditch is **not individually eligible** for listing in the NRHP nor is it a contributor to an NRHP eligible district. Additionally, the project is within the boundaries of the NRHP eligible American River Placer Mining District. Though it is beyond the scope of the project to reexamine the boundaries of the District, Caltrans has examined the portion of it in which the project occurs and finds it no longer retains integrity due to modern development, such as residential housing construction, dam and road improvements, and wetland creation. As a result, Caltrans has determined a Finding of No Historic Properties Affected is appropriate.

We look forward to receiving your response within 30 days of receipt of this submittal in accordance with Stipulation VIII.C.6.a of the PA. Please contact Chris Kuzak, District 3 Architectural Historian, at (530) 741-4017, if you have any questions regarding the documentation enclosed with this letter.

Sincerely,



Susan D. Bauer, Chief
Environmental Management, M1 Branch

Enclosure

cc: Kelly Hobbs, Caltrans HQ

Figure 9: Department of Transportation Letter Regarding Green Valley Road Widening Project – Page 2

STATE OF CALIFORNIA – THE NATURAL RESOURCES AGENCY

EDMUND G. BROWN, JR., Governor

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

1725 23rd Street, Suite 100
SACRAMENTO, CA 95816-7100
(916) 445-7000 Fax: (916) 445-7053
calshpo@parks.ca.gov
www.ohp.parks.ca.gov



August 27, 2015

Reply To: FHWA_2015_0730_001

Susan D. Bauer, Chief
Environmental Management, M1 Branch
Caltrans District 3
703 B Street
Marysville, CA 95901

Re: Determination of Eligibility and Finding of Effect for the Proposed Green Valley Road Widening Project, Folsom, Sacramento County, CA

Dear Ms. Bauer:

You are consulting with me about the subject undertaking in accordance with the January 2014 *First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (PA).

The City of Folsom, in cooperation with the California Department of Transportation (Caltrans), El Dorado County, and the Bureau of Reclamation, proposes to widen a portion of Green Valley Road from two lanes to four in the City of Folsom.

Caltrans has determined that the Siphon Ditch (P-34-4985/CA-SAC-1201H) is not individually eligible for the National Register of Historic Places (NRHP) nor is it a contributor to a NRHP eligible district. Additionally, the project is located within the boundaries of the NRHP eligible American River Placer Mining District. Caltrans, through survey of the project boundaries, has found that the project area no longer retains integrity due to modern development, including residential housing construction, dam and road improvements, and wetland creation. As a result, Caltrans is making a finding of no historic properties affected. Based on my review of the submitted documentation, I concur with the above determination and finding.

Thank you for considering historic properties during project planning. If you have any questions, please contact Natalie Lindquist of my staff at (916) 445-7014 or email at natalie.lindquist@parks.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Julianne Polanco'.

Julianne Polanco
State Historic Preservation Officer

Figure 10: Office of Historic Preservation Letter Regarding Determination of Eligibility and Finding of Effect for the Proposed Green Valley Road Widening Project

CULTURAL RESOURCES COMPLIANCE
Mid-Pacific Region
Division of Environmental Affairs
Cultural Resources Branch

MP-153 Tracking Number: 15-CCAO-023

Project Name: Green Valley Road Widening Project, City of Folsom, Sacramento County

NEPA Document: EA

NEPA Contact: Beth Dyer, Natural Resource Specialist

MP-153 Cultural Resources Reviewer: Joanne Goodsell, Archaeologist

JOANNE GOODSELL

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Date: September 30, 2015

Reclamation proposes to issue a land use authorization to permit the City of Folsom, in cooperation with the California Department of Transportation (Caltrans), to widen a portion of Green Valley Road that crosses Reclamation land. The proposed road widening project, funded by Caltrans through the Federal Highway Administration Federal-Aid Highway Program, constitutes a Federal undertaking subject to review under Title 54 U.S.C. § 306108, commonly known as Section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations found at 36 CFR Part 800, and involves the type of activity that has the potential to cause effects on historic properties under 36 CFR § 800.3(a). Pursuant to 36 CFR § 800.2(a)(2), Reclamation designated Caltrans the lead Federal agency for compliance with Section 106 of the NHPA for this undertaking.

Efforts to identify historic properties within the project area of potential effects (APE) were conducted by Dokken Engineering on behalf of Caltrans. Based on the results of those efforts, through correspondence dated July 28, 2015, Caltrans initiated consultation with the State Historic Preservation Officer (SHPO) on a Section 106 finding of No Historic Properties Affected. Through correspondence dated August 27, 2015, the SHPO concurred with the Caltrans finding of No Historic Properties Affected and their National Register of Historic Places (NRHP) eligibility determinations related to the undertaking. Specifically, Caltrans determined that one cultural resources identified within the undertaking APE, designated as the Siphon Ditch, is not individually eligible for listing in the NRHP, nor is it a contributor to the NRHP-eligible American River Placer Mining District, a portion of which is located in the APE. Caltrans further determined that the portion of the NRHP-eligible district within the APE no longer retains integrity sufficient to contribute to the eligibility of the district as a whole. SHPO concurrence with these NRHP eligibility determinations and Section 106 finding of effect completes the Section 106 process for the undertaking, fulfilling both Caltrans and Reclamation's responsibilities under Section 106.

This document conveys the completion of the Section 106 process for the proposed undertaking. The proposed action will have no significant impacts on cultural resources. Please retain a copy of this document with the administrative record for this action. Should the proposed action change, additional review under Section 106, including further consultation with the SHPO, may be required.

Figure 11: Cultural Resources Compliance Proposed Letter

Appendix G

Air Quality Environmental Protection Measures

The following measures would be implemented as part of the Proposed Action to minimize short term construction related air quality emissions.

- The construction contractor shall comply with Caltrans' Standard Specifications Section 14-9.03 Dust Control of Caltrans' Standard Specifications (2010).
- The construction contractor shall comply with Section 7-1.02 Emissions Reduction and Section 18 Dust Palliative of Caltrans' Standard Specifications (2010).
- The Wind Erosion Control BMP (WE-1) from Caltrans' Construction Site *Best Management Practices Manual* will be implemented as follows:
 - Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
 - All distribution equipment shall be equipped with a positive means of shutoff.
 - Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the Project.
 - If reclaimed water is used, the sources and discharge must meet California Department of Health Services water reclamation criteria and the Regional Water Quality Control Board requirements. Non-potable water shall not be conveyed in tanks or drain pipes that will be used to convey potable water and there shall be no connection between potable and non-potable supplies. Non-potable tanks, pipes and other conveyances shall be marked "NON-POTABLE WATER – DO NOT DRINK."
 - Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits.
- The construction contractor shall comply with Rule 223-1 for Fugitive Dust – Construction Requirement from EDAQMD's *El Dorado County AQMD Fugitive Dust And Asbestos Rules*.
- The construction contractor shall implement engineering controls including wetting the materials being disturbed to control exposure to NOA. If engineering controls do not adequately control exposure to potentially NOA-containing dust, the use of personal protective equipment including wearing approved high efficiency particulate air filter masks is required during construction activities. Asbestos dust control methods similar to those in Title 17 CCR, §93105 are outlined in the ATCM listed in Title 17 CCR, §93106 for airborne asbestos in road surfacing applications. Using surfacing material with 0.25% or more asbestos material is not permitted and wetting of the material or the application of a surface sealant is recommended to minimize disturbance of the asbestos material. Onsite reuse or disposal of NOA-containing materials is allowed by 17 CCR §93106 and 17 CCR §93105 if it is buried under at least 0.25 foot of material that does not contain NOA.

