



AGENDA
May 26, 2016

PLANNING COMMISSION MEETING

7:00 p.m.

City Council Chambers
311 Vernon Street
Roseville, California

1. ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. ORAL COMMUNICATIONS

4. CONSENT CALENDAR

4.1. MINUTES OF APRIL 14, 2016

5. NEW BUSINESS

5.1. NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT - 750 GALLERIA BOULEVARD - FILE #PL15-0026

The applicant requests approval of a Flood Encroachment Permit and Tree Permit in order to construct flood control and associated improvements in a section of Antelope Creek, including modifying an existing culvert where the Antelope Creek Trail crosses Antelope Creek and installing a weir, rock slope protection in several locations, soil borrow activities, and habitat restoration activities. Applicant: E. Brian Keating, Placer County Flood Control and Water Conservation District. Property Owner: City of Roseville. (Hocker)

5.2. SVSP PARCELS DF-1 & DF-2 TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT - 5501 MARKET STREET - FILE #PL14-0516

The applicant requests approval of a Tentative Subdivision Map within the Sierra Vista Specific Plan (SVSP) to allow the creation of 115 single-family lots, one (1) park lot, three (3) paseo lots, two (2) landscape lots, and three (3) open space lots, and an Administrative Permit to reallocate two (2) residential units (1 unit from Village DF-1 and 1 unit from Village DF-2) to Village DF-20. The proposed reallocation will not change the overall allocated dwelling unit count within the SVSP. Applicant: Nick Alexander, NG Alexander Real Estate Development. Property Owners: Jeff Ronten, DF Properties, Inc. (Miller)

6. REPORTS: COMMISSION/STAFF

7. ADJOURNMENT



PLANNING COMMISSION

Title: MINUTES OF APRIL 14, 2016

Meeting Date: 5/26/2016
Item #: 4.1.

ATTACHMENTS:

Description

April 14, 2016 Minutes - Draft



**Planning Commission Meeting
April 14, 2016 – 7:00 p.m.
Draft Minutes**

I. ROLL CALL

Planning Commissioners Present

Krista Bernasconi, Chair
Bruce Houdesheldt, Vice-Chair
Justin Caporusso
Julie Hirota
Charles Krafka
David Larson

Staff Present

Kathy Pease, Planning Manager
Tricia Stewart, Senior Planner
Wayne Wiley, Associate Planner
Chris Kraft, City Engineer
Kelye McKinney, Assistant E.U. Director
Michelle Sheidenberger, Assistant City Attorney
Julie Pistone, Recording Secretary

Planning Commissioners Absent

Joseph McCaslin - *Excused*

II. PLEDGE OF ALLEGIANCE

Commissioner Larson led those in attendance in the Pledge of Allegiance.

III. ORAL COMMUNICATION

Chair Bernasconi opened the Oral Communication.

Hearing none, Chair Bernasconi closed the Oral Communication.

IV. CONSENT CALENDAR

Chair Bernasconi asked if anyone wished to remove any of the items from the Consent Calendar for discussion.

Hearing none, Chair Bernasconi asked for a motion to approve the Consent Calendar as listed below:

A. MINUTES OF MARCH 24, 2016.

MOTION

Commissioner Larson made the motion, which was seconded by Commissioner Caporusso, to approve the Consent Calendar as submitted.

The motion passed with the following vote:

Ayes: Larson, Caporusso, Houdesheldt, Krafka, Bernasconi

Noes: None

Abstain: Hirota

V. NEW BUSINESS

A. ANNEXATION, SPHERE OF INFLUENCE AMENDMENT, GENERAL PLAN AMENDMENT, SPECIFIC PLAN, PREZONING AND DEVELOPMENT AGREEMENTS – AMORUSO RANCH SPECIFIC PLAN – 5101 SUNSET BOULEVARD – FILE #2011PL-039.

Senior Planner, Tricia Stewart, and Associate Planner, Wayne Wiley, presented the staff report and responded to questions. Planning Manager, Kathy Pease, was also available to respond to questions.

Chair Bernasconi opened the public hearing and invited comments from the applicant and/or audience.

Applicant, John Norman, Brookfield Residential, represented by Marcus Lo Duca, addressed the Commission and responded to questions. He stated he had received a copy of the staff report and was in agreement with staff's recommendations.

Public Comment:

- Keith Schmidt, Western Placer Waste Management Authority, addressed the Commission to state that he will be providing comments on the DEIR via letter the following day.

Commission Discussion:

- Clarification of any parking and safety measures that were discussed at the Transportation Commission Meeting related to the development.
- Parking reduction for HDR projects and parking impacts on adjacent uses with regards to Assembly Bill 744. Parking is a concern of the Planning Commission so they wanted their concern in the record.
- Staff clarified that the high density residential uses are proposed adjacent to commercial uses so there will be opportunities for shared parking.
- Design Review for Residential Subdivision and Design Review Permit requirement for HDR and MDR.
- Is it typical to have a court reporter at a Specific Plan meeting?
- Interface between agricultural and residential uses.
- Mello Roos fee schedule comparison to other plan areas.
- Timing of the Westbrook construction from W. Sunset Bl to Baseline Rd.
- The Sparta Fee for Amoruso compared to the other specific plans.
- Not enough time to review the letter received at the last minute from residents, Jim and Gaynell Gleason.
- Comments regarding the letter received from the Gleason's:
 1. Impact on adjacent agricultural uses, drainage, and aquifer storage and recovery system.
 2. Compatibility of land uses, sustainable land water management, surface water captured and stored in the ground.
 3. Benefits to the adjacent property owners if and when we do the aquifer storage and recovery system.
 4. Safeguards that the sustainable land water management will provide to ensure the Gleason's are not impacted by the time Amoruso Ranch is under construction.
 5. Protection from aerial pesticide and herbicide spraying so as not to affect the agricultural operations including the right to farm.

6. Notification and disclosures to adjacent neighbors as well as the entire specific plan area of potential agricultural operations taking place are included in the Development Agreements.

Kelye McKinney, Assistant Environmental Utilities Director, addressed the Commission to respond to questions regarding the sustainable land water management plan.

Ryan Sawyer, Analytical Environmental Services, whose firm prepared the DEIR, addressed the Commission and responded to questions regarding the aerial spraying of pesticides.

Chair Bernasconi closed the public hearing and asked for a motion.

MOTION

Commissioner Hirota made the motion, which was seconded by Commissioner Larson, to

- A. Forward all comments received on the Draft EIR during the public review period for inclusion in the Final EIR for City Council review.
- B. Recommend that the City Council authorize staff to make and execute any and all necessary documents and applications to the Placer County Local Agency Formation Commission for annexation.
- C. Recommend that the City Council amend the General Plan Land Use Map and text as shown in the General Plan 2035 Redline (Exhibit C).
- D. Recommend that the City Council adopt the following finding and approve the Amoruso Ranch Specific Plan (Exhibit B):
 1. The Amoruso Ranch Specific Plan is consistent with the objectives, policies, general land uses and programs specified in the General Plan.
- E. Recommend that the City Council adopt the following findings and approve the Prezone for the land located within unincorporated Placer County, amending the zoning map to reflect the zoning as indicated in Amoruso Ranch Specific Plan Table 4.1:
 1. The proposed Prezone is consistent with the General Plan as amended, and
 2. The proposed Prezone will not be detrimental to the public interest, health, safety, or welfare of the City.
- F. Recommend that the City Council adopt the following findings and approve the Amoruso Ranch Specific Plan Development Agreements (Exhibit D):
 1. The ARSP Development Agreements are consistent with the objectives, policies, general land uses and programs specified in the General Plan;

2. The ARSP Development Agreements are consistent with the provisions of Chapter 19.84 of the Roseville Zoning Ordinance;
3. The ARSP Development Agreements will not be detrimental to the health, safety, or general welfare of the residents of the City of Roseville;
4. The ARSP Development Agreements will not adversely affect the orderly development of property or the preservation of property values; and
5. The ARSP Development Agreements will provide sufficient benefit to the City to justify entering into the Development Agreement.

The motion passed with the following vote:

Ayes: Hirota, Larson, Caporusso, Krafka, Bernasconi

Noes: None

Abstain: Houdesheldt

VI. REPORTS: COMMISSION/STAFF

Commissioner Larson mentioned there was a recent fatality on Blue Oaks Blvd. near Washington Blvd. He asked staff to consider a divider from Industrial Bridge towards Washington Blvd. to eliminate the opportunity for drivers being able to make a U-turn. Staff stated a project is underway that includes a concrete median on Blue Oaks Blvd. that will eliminate the ability to make U-turns. There is a 3 month timeline for the installation of the concrete median on Blue Oaks Blvd. between Washington Blvd. and Alantown Dr.

Commissioner Caporusso and Commissioner Hirota have a conflict for the May 5th Planning Commission City tour. Commissioner Larson requested it be done before he terms out in July 2016.

VII. ADJOURNMENT

Commissioner Bernasconi asked for a motion to adjourn the meeting.

MOTION

Commissioner Houdesheldt made the motion, which was seconded by, Commissioner Larson to adjourn to the meeting.

The motion passed unanimously at 8:14 p.m.



PLANNING COMMISSION

Title:

NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT - 750 GALLERIA
BOULEVARD - FILE #PL15-0026

Meeting Date: 5/26/2016

Item #: 5.1.

ATTACHMENTS:**Description**

Staff Report - NCRSP Antelope Creek Flood Control Project

Exhibit B

Exhibit C

**ITEM V-A: FLOOD ENCROACHMENT PERMIT AND TREE PERMIT – 750 GALLERIA BOULEVARD
– NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT – PL15-0026**

REQUEST

The applicant requests approval of a Flood Encroachment Permit and Tree Permit in order to construct flood control and associated improvements in a section of Antelope Creek, including modifying an existing culvert where the Antelope Creek Trail crosses Antelope Creek and installing a weir, rock slope protection in several locations, soil borrow activities, and habitat restoration activities.

Owner – City of Roseville

Applicant – E. Brian Keating, Placer County Flood Control and Water Conservation District

SUMMARY RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions:

- A. Consider the Mitigated Negative Declaration and Addendum to the Mitigated Negative Declaration,
- B. Adopt the two (2) findings of fact for the Flood Encroachment Permit,
- C. Approve the Flood Encroachment Permit subject to nineteen (19) conditions of approval,
- D. Adopt the two (2) findings of fact for the Tree Permit, and
- E. Approve the Tree Permit subject to twenty (20) conditions of approval.

SUMMARY OF OUTSTANDING ISSUES

There are no outstanding issues associated with this request. The applicant has reviewed and is in agreement with the recommended conditions of approval.

BACKGROUND

The proposed project consists of multiple components, the primary purpose of which is to detain additional flood volume within the creek corridor, which will reduce downstream peak discharges along the main stem of Dry Creek through downtown Roseville and portions of Placer and Sacramento Counties. The applicant, the Placer County Flood Control and Water Conservation District, is the agency primarily responsible for both approving and carrying out the project (the Lead Agency), but there are multiple other agencies with permit or other reviewing authority over the proposed improvements (the Responsible Agencies). The City of Roseville is acting as a Responsible Agency on the project, as the project lies within the City boundary and is therefore subject to City Ordinances, Codes, and policies. The City has been working cooperatively with the applicant on this project, as it will provide public benefits to the City by improving existing flooding conditions.

The project includes activities at various locations along the portion of Antelope Creek that lies between Atlantic Street and Antelope Creek Drive. There are several facilities adjacent to the area of work, including the Antelope Creek Trail; the MAYA Archers, Inc. archery course; and a closed landfill. All of the property, including the archery course, trail, and landfill property, is owned by the City of Roseville and has a land use designation of Open Space. There are several different zoning designations present in the areas where construction will occur, including Open Space (OS), Open Space/Floodway (OS/FW) and General Industrial (M2). The areas along and to the east of the creek have the OS/FW and OS designations, while the M2 zoning designation is generally present over the Maya Archers facility. Refer to Figure 1 for an aerial photograph showing the project area and nearby facilities, and to Exhibit A for the complete set of project materials and design details.

Figure 1: Project Location



The primary component of the project, and the portion which necessitates the Flood Encroachment Permit, is the improvement of an existing culvert where the Antelope Creek Trail crosses Antelope Creek (the area circled in red on Figure 1). The culvert will be reconfigured and a weir¹ will be added. The weir¹ design will detain water in a manner that increases upstream 100-year flood water surface elevations by less than five feet, and is designed to allow low flows (less than 50-year storm events) to pass without restriction. The new culvert and weir design will also remove existing barriers to fish passage caused by the existing culvert design, and will preserve fish passage even during low flows.

The other elements of the proposed project are needed to respond to the effects of installing the weir and modified culvert. As 100-year water surface elevations will increase, additional erosion control in the form of rock slope protection is needed around the weir itself and in two upstream locations (shown in gold on Figure 1). The project plans also identify a soil borrow area, as fill will be needed in order to complete the proposed scope of work. After borrow activities are complete, the borrow area will then be used to replant trees and undertake restoration activities to offset tree and habitat losses resulting from weir and rock slope protection activities.

SITE INFORMATION

Location: Antelope Creek between Atlantic Street and Antelope Creek Drive

Total Size: 41-acre study area (see Figure 2)

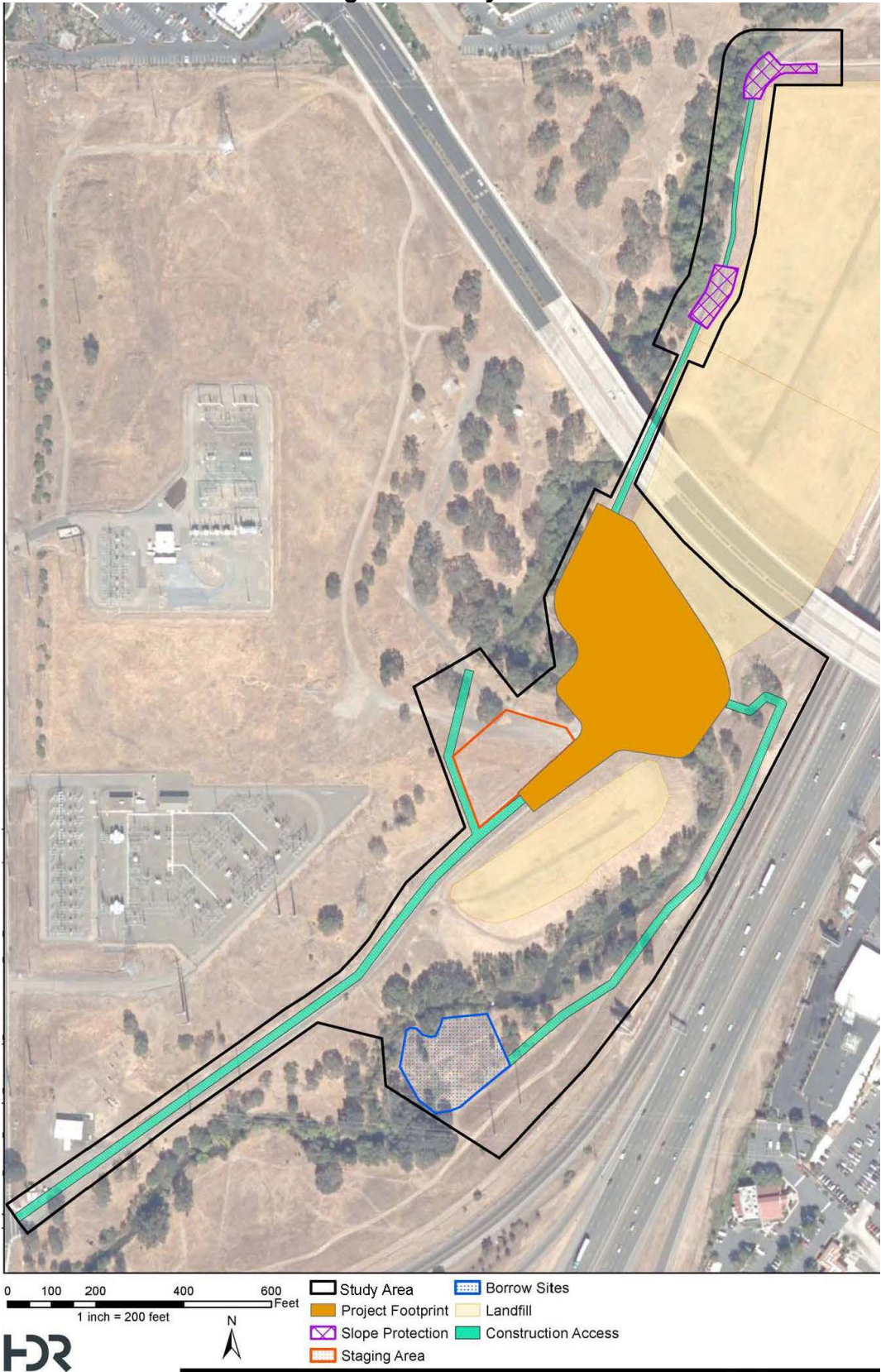
Topography and Setting: The area along this section of Antelope Creek is hilly and wooded in places, with a mix of gentle inclines and areas of very steep slopes. There is also a mix of habitats in the area, with non-native grassland, oak woodland, and riparian woodland dominating. Native oak trees present in the project area include valley oak, interior live oak, and blue oak. Figure 2 depicts the study area used in the analysis of the project, as well as the construction footprints for the project and the proposed access roads for construction equipment.

The project area and surrounding land all has an open space designation, so very few permanent structures are nearby. The archery course is on the western side of Antelope Creek, and consists of dirt roads and pathways leading to various targets—generally smaller structures using platforms and straw bales for backing. Antelope Creek Trail is a Class I facility consisting of a 10-foot-wide paved pathway, striped with two opposing lanes of travel. The closed Roseville Sanitary Landfill is gently sloped and covered in non-native grasses, as it was covered over with dirt and seeded with grasses as part of the landfill closure plan completed in 1995. The landfill is surrounded by chain link fencing. Antelope Creek and the Antelope Creek Trail pass underneath the Roseville Parkway overpass, with a portion of the project located south of the overpass, and a portion located north.

The areas adjacent to the Antelope Creek open space corridor are developed with various urban uses, including an electrical substation to the west, Interstate 80 and commercial areas along Taylor Road to the east, apartments and the Creekside Ridge shopping center to the north, and the Atlantic/Eureka overpass and an equipment rental business to the south.

¹ A weir is a barrier placed across a channel that causes water to pool behind the weir, somewhat like a very small dam.

Figure 2: Study Area



EVALUATION

Section 19.78.060 of the City of Roseville Zoning Ordinance requires two findings be made in order to approve a Flood Encroachment Permit, and two findings be made in order to approve a Tree Permit. The findings for each permit are listed below in ***italicized, bold*** text and are followed by an evaluation of the project in relation to the findings.

Flood Encroachment Permit

Permitted uses and standards for development within the Floodway (FW) or Floodway Fringe (FF) zones are included within Section 19.18 of the City of Roseville Zoning Ordinance. The proposed weir installation and culvert modifications are all located on land with an OS/FW zoning designation. Pursuant to Section 19.18.040(G), the placement of structures or fill within an FW zone requires the issuance of a Flood Encroachment Permit. The findings for such a permit are as follows:

- 1. The flood encroachment will be constructed and will be operated with all standards and regulations set forth in Chapter 19.18 of this Title.***
- 2. The flood encroachment will not result in increased exposure of life and property to flood-related hazards.***

The Zoning Ordinance lays out multiple standards applicable to uses within the FW zone, including General Standards, Fill or Excavation Standards, Standards for Structures, and provisions for the storage of material or equipment. The purpose of these standards is to ensure the minimization or avoidance of flood hazards or damage. The standards were generally designed with development projects in mind (e.g. bridges, resource extraction, and accessory structures like barns), and thus include standards that it is obvious the proposed flood control project will meet, such as “be consistent with the need to minimize flood damage” and “must be shown to have some beneficial purpose.” This analysis does not discuss those standards which it is obvious will be met by the project, restricting the analysis to those areas where some additional explanation could be useful. The project will introduce an obstruction into the stream channel in the form of a weir, increase the upstream 100-year flood elevation (by less than five feet), involve work within and loss of habitat alongside the Antelope Creek channel, and is taking place in areas that could affect the closed landfill. All of these issues are discussed, as they are related to standards and criteria within the Zoning Ordinance as it relates to Flood Encroachment Permits.

The Zoning Ordinance (19.18.040.G.3) states “structures shall be constructed and placed on the building site so as not to obstruct the flow of floodwaters,” and then goes on to stipulate construction standards that can achieve this goal, such as the use of anchoring to ensure the structure does not unmoor and become obstructive debris in the channel. The purpose of this section is to avoid obstructions that redirect or detain flood flows in a manner that increases flood hazards. Although the weir will technically obstruct flood flows to some degree, it does so in order to better regulate and control flood volumes, for the purpose of reducing flood hazards. On this basis, staff concludes that the project will not obstruct floodwaters in the manner described in the Zoning Ordinance.

The Zoning Ordinance (19.18.040.G.1) states “No structure . . . is allowed which . . . adversely affects the stream channel [or] increases flood heights,” and ends by detailing the goals of minimizing flood damage and reducing flood hazards. By design, the project will increase upstream flood heights by several feet. As previously stated, the purpose of this improvement is to reduce downstream flood damage and hazard potential, consistent with the goals of the Zoning Ordinance. Although the flood elevation upstream will increase, the area in question is entirely within areas designated for Open Space

uses. The increased flood elevation does not affect any structures. On this basis, staff concludes that the project will not increase flood heights in a manner that would increase flood damage or hazards.

The project involves multiple areas of work within and along the Antelope Creek channel, which will require the removal of trees (see the Tree Permit analysis), disturbance of the bed and bank of the creek, and the placement of rock slope protection within the creek. All of these activities will result in either temporary or permanent impacts to the creek channel. However, the project also includes habitat restoration activities to offset these impacts, including grading the channel near the culvert back to more naturalized conditions, as the channel shape has been negatively influence by the existing culvert design; a weir design that will improve fish passage compared to the existing conditions; and a large oak woodland restoration area, where trees will be planted to offset the removal of oak trees within the project footprint. Overall, given the combination of the benefits of the flood control project and the restoration activities proposed as part of the project, the project will not impact the stream channel in a manner inconsistent with the Zoning Ordinance.

Finally, there is the proximity of the proposed improvements to the closed Roseville Sanitary Landfill. As can be seen in Figure 1 and Figure 2, portions of the landfill edge lie close to Antelope Creek. The applicants cooperated with City staff to determine whether any impacts to the landfill could occur. The new 100-year water surface elevation will not infringe on the limits of waste within the landfill, but it was determined that additional rock slope protection should be provided in areas near the landfill where flow velocities were predicted to increase. The purpose of this protection is to prevent bank erosion that could extend into the regulated boundary of the closed landfill. The two areas of rock slope protection located north of the Roseville Parkway overpass are proposed in order to achieve this goal. The proposal has been reviewed by City Public Works and Environmental Utilities staff, who have concluded that the proposal is adequate, and properly considers “the ability of the[] sanitation systems to prevent disease, contamination, and unsanitary conditions,” as specified in Zoning Ordinance Section 19.18.040.J).

Based on the foregoing analysis, it is concluded the project will be constructed and operated consistent with all standards and regulations set forth in Chapter 19.18 of this Title and that approval of the Flood Encroachment Permit will not result in increased exposure of life and property to flood-related hazards.

Tree Permit

Pursuant to Zoning Ordinance Section 19.66.030, a Tree Permit is required for any removal of native oak trees or for more than 20% encroachment into the dripline of a native oak tree. The proposed project involves both types of impacts. The findings for a Tree Permit are as follows:

- 1. Approval of the Tree Permit will not be detrimental to the public health, safety or welfare, and approval of the Tree Permit is consistent with the provisions of Chapter 19.66.***
- 2. Measures have been incorporated into the project or permit to mitigate impacts to remaining trees or to provide replacement for trees removed.***

There are numerous oak trees present both within and alongside the Antelope Creek channel, some of which will require removal in order to construct the flood control project. An Arborist Report was prepared by Mann Made Resources Arborist Consultation and Tree Conservation Products (dated February 28, 2016) to inventory all native oak trees within the study area and identify any impacts to the trees (see Exhibit B). The study inventoried 174 native oak trees, including blue oak, valley oak, and interior live oak. Based on the Arborist Report, the project will result in the removal of 19 native oak trees, for a total loss of 265 inches. An additional 14 trees will experience dripline encroachment, in amounts ranging from 1% to 37% encroachment.

City staff reviewed the proposed plans and performed site inspections, and have concluded that the listed impacts cannot be avoided. Though 19 trees will be removed, this is a small fraction of the total 174 trees inventoried in the study area. Given the beneficial use of the proposed flood control project and the small loss relative to the overall tree canopy in the area, the loss of these trees will not be detrimental to the public health, safety, or welfare, and is consistent with the Zoning Ordinance. The project plans reflect the installation of tree protection fencing for all of the trees which are to be retained and preserved, including those trees experiencing some degree of dripline encroachment.

To offset the losses of oak trees, the project also includes an oak woodland restoration area, where trees will be replanted within the study area to offset oak tree removal onsite to the extent feasible. If all 265 inches cannot be mitigated by planting in this area, the balance will be mitigated through the payment of in-lieu fees to the City consistent with Zoning Ordinance Section 19.66.070. Conditions of approval have been included in this staff report to ensure compensation for tree losses and protection of preserved trees. An Oak Tree Planting and Replacement Program is required, which must specify the number and species of trees to be planted, the size of the replacement trees, the location of each replanted tree, an irrigation and maintenance plan, and a monitoring plan to ensure establishment. Measures have been incorporated into the project and permit to mitigate impacts to remaining trees and to provide replacement for trees removed.

NEIGHBORHOOD OUTREACH

Acting as Lead Agency, the Placer County Flood Control and Water Conservation District (District) approved the project during a public hearing before the District Board of Directors on January 13, 2014. This meeting was noticed to the public in conformance with District noticing procedures. The project has been before the District Board of Directors at public meetings on multiple occasions since that time, to discuss the progress of responsible agency permits, timelines, and construction items. The item has been before the District Board of Directors for discussion three times in 2015 (February 9, April 13, and September 14) and twice in 2016 (January 11 and April 11).

Acting as Responsible Agency, the City distributed the project application materials for review by internal and external departments and agencies. Conditions and comments received were incorporated into the project and staff report. Materials were also distributed to the Roseville Coalition of Neighborhood Associations. On May 13, 2016, a public hearing notice was distributed to all properties within 300 feet of the open space parcel where the project is proposed. As a separate but related process, the City Public Works Department has also provided notice of the City's intent to seek revision of the mapped floodplain. This notice was sent to all property owners who would be affected by increases in the base flood elevation, and a notice was also published in the Roseville Press Tribune on April 22, 2016.

ENVIRONMENTAL DETERMINATION

On November 22, 2013 the District, acting as Lead Agency, published a Draft Initial Study/Mitigated Negative Declaration (MND) for the Antelope Creek Flood Control Project (SCH# 2013112064). The District considered and incorporated comments on the Draft MND and published a Final MND in January 2014. Subsequently, the scope of the project was altered to include additional areas of impact, and so an Addendum to the MND was prepared (dated September 2015). The Draft, Final, and Addendum MND are attached to this staff report as Exhibit C.

RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

- A. Consider the Draft and Final Initial Study/Mitigated Negative Declaration for the Antelope Creek Flood Control Project (SCH# 2013112064) and Addendum to the Mitigated Negative Declaration.
- B. Adopt the findings of fact as stated in the staff report for the **FLOOD ENCROACHMENT PERMIT – 750 GALLERIA BOULEVARD – NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT – PL15-0026**.
- C. Approve the **FLOOD ENCROACHMENT PERMIT – 750 GALLERIA BOULEVARD – NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT – PL15-0026** subject to nineteen (19) conditions of approval.
- D. Adopt the findings of fact as stated in the staff report for the **TREE PERMIT – 750 GALLERIA BOULEVARD – NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT – PL15-0026**.
- E. Approve the **TREE PERMIT – 750 GALLERIA BOULEVARD – NCRSP ANTELOPE CREEK FLOOD CONTROL PROJECT – PL15-0026** subject to twenty (20) of conditions of approval.

CONDITIONS OF APPROVAL FOR THE FLOOD ENCROACHMENT PERMIT

- 1. The project is approved as shown in Exhibit A and as conditioned or modified below. (Planning and Engineering)
- 2. The contractor shall apply for and obtain an encroachment permit and a grading permit from the Engineering Department prior to any work conducted within the City right-of-way. (Engineering)
- 3. Existing public facilities damaged during the course of construction shall be repaired by the contractor, at the contractor's expense, to the satisfaction of the City. (Engineering)
- 4. The applicant shall obtain a Conditional Letter of Map Revision (CLOMR) from the Federal Emergency Management Agency (FEMA) prior to construction. Upon completion of the project, and prior to acceptance by the City, the applicant shall obtain a Letter of Map Revision (LOMR) from FEMA. (Engineering)
- 5. The applicant agrees to incur all costs for compliance with local, State, and Federal permitting. If any conditions issued by other agencies conflict with any of the conditions of this permit, then the applicant shall resolve conflicts between any of the terms and conditions that agencies might impose under the laws and regulations it administers and enforces. (Engineering)
- 6. If the applicant does not comply with the conditions of the Flood Encroachment Permit and enforcement by the City is required, the applicant shall be responsible for bearing all direct costs associated with the enforcement action, including reasonable attorney's fees. (Engineering)
- 7. For all construction work that extends onto land owned by any other third party, permission to enter and construct shall be obtained from the property owner, in the form of a notarized right of entry. Said notarized right of entry shall be provided to the City prior to issuance of the Grading and Encroachment Permits. (Engineering)
- 8. Prior to construction, the applicant shall create a photo record, including associated descriptions, of the existing site conditions, including any public and private property, including improvements, located within

or adjacent to the project site. The photo record shall be provided to the City's inspector prior to construction. (Engineering)

9. The applicant shall remove all temporary, in channel cofferdam(s) gravel work pad(s), and/or other appurtenances that are within the City's Regulatory Floodplain during the flood season from November 1 through April 15. Please note that conditions from other permitting agencies might be more restrictive regarding construction activity within the stream channel, and the most restrictive conditions will apply. (Engineering)
10. All addenda and contract change orders made to the approved plans and/or specifications by the applicant after City approval of the Flood Encroachment Permit that change the 100-year floodplain limits, upstream, downstream, or within the project area shall be submitted to the Public Works Department – Floodplain Management Section for review and approval prior to incorporation into the permitted project. The submittal shall include all supplemental plans, specifications, and necessary supporting geotechnical, hydrology, and hydraulics, or other technical analyses. The City shall acknowledge receipt of the addendum or change submittal in writing within ten (10) working days of receipt, and shall work with the applicant to review and respond to the request as quickly as possible. The City may request additional information as needed. The City will provide written notification to the applicant if the review period is likely to exceed thirty (30) calendar days. Upon approval of submitted documents, the Flood Encroachment Permit shall be revised, if needed, prior to construction related to the proposed changes. (Engineering)
11. Within 90 calendar days of completion of the project, the applicant shall submit as-built drawings and a certification report, stamped and signed by a licensed civil engineer registered in the State of California, certifying the work was performed and inspected in accordance with the City's permit conditions and submitted drawings and specifications. (Engineering)
12. The applicant shall maintain the permitted improvements within the utilized area in accordance with applicable current or future local, State, and Federal standards in the manner required as requested by an authorized representative of the City. (Engineering)
13. The applicant shall be responsible for repair of any damages to the stream banks, bike trail, fencing, landfill closure, floodway, or any other improvements due to construction, operations, or maintenance of the proposed project. (Engineering)
14. If the permitted encroachment(s) result in any adverse hydraulic impact or if the flows being conveyed through the project result in scouring, the applicant shall provide appropriate mitigation acceptable to the City. (Engineering)
15. At the request of either the applicant or the City, the applicant and the City shall conduct joint inspections of the project and floodway after significant flood events or flood seasons to assess the integrity and operation of the project, and to assess and respond to any adverse impacts on the floodway or adjacent properties. (Engineering)
16. If the project, or any portion thereof, is significantly damaged or is to be abandoned in the future, the applicant shall abandon or repair the project under direction of the City, at the applicant's cost and expense. (Engineering)
17. All water appurtenance shall be protected in place. Water and sewer appurtenances shall be adjusted to one foot above grade in any area impacted by grading. (Environmental Utilities)

18. Fill placed over existing water and sewer mains shall be CLSM. (Environmental Utilities)
19. All revised bike trails shall be re-engineered to ensure that emergency response vehicles are considered as part of the design. (Fire)

CONDITIONS OF APPROVAL FOR THE TREE PERMIT AND COMPLIANCE VERIFICATION

CHECKLIST

CONDITION	COMPLIANCE VERIFIED/ INSPECTED	COMMENTS
PRIOR TO ISSUANCE OF ANY PERMITS OR ANY CONSTRUCTION ON-SITE		
1. All recommendations contained in the Arborist Report(s) (Exhibit B) shall be incorporated as part of these conditions except as modified herein. (Planning)		
2. Trees #175, 178–179, 181, 223–227, 229–230, 245, 250, 275, 277–278, 405, and 415 are approved for removal with this tree permit. All other native oak trees shall remain in place. Trees to be removed shall be clearly marked in the field and inspected by Planning Staff prior to removal. Removal of the trees shall be performed by or under the supervision of an ISA Certified Arborist. (Planning)		
3. The developer shall be responsible for the replacement of the total number of inches proposed for removal prior to any tree removal. The total number of inches for this project is 265. An Oak Tree Planting and Replacement Program consistent with the standards of Zoning Ordinance Section 19.66.070 shall be provided for review and approval prior to any removal of any native oak trees. Consistent with the Mitigated Negative Declaration for the project, the Oak Tree Planting and Replacement Program shall first include on-site replacement trees, with other measures (such as in-lieu fees) being used to offset the remaining impact. The effectuation of the Oak Tree Planting and Replacement Program shall be complete prior to acceptance of the project by the City. (Planning)		
4. No activity shall be permitted within the protected zone of any native oak tree, except those trees listed as approved for removal in Condition 2, or listed as having permitted encroachment in Condition 8.		
5. A \$10,000 cash deposit or bond (or other means of security provided to the satisfaction of the Planning Division) shall be posted to ensure the preservation of all remaining trees during construction. The cash deposit or bond shall be posted in a form approved by the City Attorney. Each occurrence of a violation on any condition regarding tree preservation shall result in forfeiture of all or a portion of the cash deposit or bond. (Planning)		

CONDITION	COMPLIANCE VERIFIED/ INSPECTED	COMMENTS
6. A violation of any of the conditions of this Tree Permit is a violation of the Roseville Municipal Code, the Zoning Ordinance (Chapter 19.74) and the Tree Preservation Ordinance (Chapter 19.66). Penalties for violation of any of the conditions of approval may include forfeiture of the bond, suspension or revocation of the permit, payment of restitution, and criminal penalties. (Planning)		
7. A fencing plan shall be shown on the approved site plan and/or improvement plans demonstrating the Protected Zone for the affected trees. A maximum of three feet beyond the edge of the walls, driveway, or walkways will be allowed for construction activity and shall be shown on the fencing plan. The fencing plan shall be reviewed and approved by the Planning Division prior to the placement of the protective fencing. (Planning)		
8. The applicant shall install a minimum of a five-foot high chain link fence (or acceptable alternative) at the outermost edge of the Protected Zone of the oak tree. The fencing for encroachments shall be installed at the limit of construction activity; trees approved for encroachment are #171, 176, 241, 243, 327, 342, 352, 357, 360–362, 407, and 408. The applicant shall install signs at two equidistant locations on the temporary fence that are clearly visible from the front of the lot and where construction activity will occur. The size of each sign shall be a minimum of two feet (2') by two feet (2') and must contain the following language: "WARNING THIS FENCE SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE PLANNING DIVISION". (Planning)		
9. Once the fencing is installed, the applicant shall schedule an appointment with the Planning Division to inspect and approve the temporary fencing before beginning any construction. (Planning)		
10. The applicant shall arrange with the arborist to perform, and certify in writing, the completion of deadwooding, fertilization, and all other work recommended for completion prior to the approval of improvement plans. Pruning shall be done by an Arborist or under the direct supervision of a Certified Arborist, in conformance with International Society of Arboriculture (I.S.A.) standards. Any watering and deep root fertilization which the arborist deems necessary to protect the health of the trees, as noted in the arborist report or as otherwise required by the arborist, shall be completed by the applicant. (Planning)		

CONDITION	COMPLIANCE VERIFIED/ INSPECTED	COMMENTS
11. A utility trenching pathway plan shall be submitted depicting all of the following systems: storm drains, sewers, water mains, and underground utilities. The trenching pathway plan shall show the proposed locations of all lateral lines. (Planning)		
12. A Site Planning Meeting shall be held with the applicant, the applicant's primary contractor, and the Planning Division to review this permit, the approved grading or improvement plans, and the tree fencing prior to any grading on-site. The Developer shall call the Planning Division two weeks prior to the start of grading work to schedule the meeting and fencing inspection. (Planning)		
DURING CONSTRUCTION		
13. The following information must be located on-site during construction activities: Arborist Report; Approved site plan/improvement plans including fencing plan; and, Conditions of approval for the Tree Permit. All construction must follow the approved plans for this tree permit, without exception. (Planning)		
14. All preservation devices (aeration systems, oak tree wells, drains, special paving, etc.) shall be designed and installed as required by these conditions and the arborist's recommendations, and shall be shown on the improvement plans or grading plans. (Planning)		
15. If any native ground surface fabric within the Protected Zone must be removed for any reason, it shall be replaced within forty-eight (48) hours. (Planning)		
16. Storage or parking of materials, equipment and vehicles is not permitted within the Protected Zone of any oak tree. Vehicles and other heavy equipment shall not be operated within the Protected Zone of any oak tree. (Planning)		
17. Where recommended by the arborist, portions of the foundation shall be hand-dug under the direct supervision of the project arborist. The certified arborist shall immediately treat any severed or damaged roots. Minor roots less than one (1) inch in diameter may be cut, but damaged roots shall be traced back and cleanly cut behind any split, cracked or damaged area. Major roots over one (1) inch in diameter may not be cut without approval of an arborist and any arborist recommendations shall be implemented. (Planning)		
18. The temporary fencing shall remain in place throughout the entire construction period and shall not be removed without obtaining written authorization from the Planning Division. In no event shall the fencing be removed before the written authorization is received from the Planning Division. (Planning)		

CONDITION	COMPLIANCE VERIFIED/ INSPECTED	COMMENTS
AT COMPLETION OF ALL CONSTRUCTION		
19. Within 5 days of the completion of construction, a Certification Letter from a certified arborist shall be submitted to and approved by the Planning Division. The certification letter shall attest to all of the work (regulated activity) that was conducted in the Protected Zone of the tree, either being in conformance with this permit or of the required mitigation still needing to be performed. (Planning)		
20. A copy of the completed Tree Permit Compliance Verification/Inspection form shall be submitted to the Planning Division. (Planning)		

Exhibits

- A. Project Plans
- B. Arborist Report
- C. Draft, Final, and Addendum Mitigated Negative Declaration

Note to Applicant and/or Developer: Please contact the Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.



Mann Made Resources

Arborist Consultation and Tree Conservation Products

Arborist Report

April 9, 2016

Placer County Flood Control and Water Conservation District Antelope Creek Flood Control Project – Weir Site, Borrow Site, and two Erosion Control Areas, City of Roseville, CA

Prepared for HDR, Inc., 2365 Iron Point Road, Suite 300, Folsom, CA 95630, and revised after the City of Roseville comments and questions.

Activity – Provide Arborists site inspection, tree information and data to meet the City of Roseville's Tree Preservation requirements to complete the subject project

Observations: This Arborist Report is based on a current tree inventory performed in January 2016. The report includes information required by the Roseville Municipal Code – Title 19, Zoning, Chapter 19.66 – Tree Preservation (Ordinance), and review of plan sheets: D-01 Demolition Plan – Upper Weir, 8-2015; C-13, Borrow Site Plan, 11-2015; Sheet C-03; and C-15, Erosion Protection Area A and Area B, 8-2015. The inventory is shown on the six page spreadsheet in Attachment 1.

A total of 175 oaks were inventoried in the four areas: (1) the Borrow Area, (2) the Weir site, (3) Soil Erosion Control Area A, and (4) Soil Erosion Control Area B.

- 82 Oaks were listed in the Weir area, and 12 protected oaks require removal in the Weir Area, tree numbers 223, 224, 225, 226, 227, 228, 229, 230, 265, 275, 277, 278, 405, and 415, equaling 195 diameter inches for mitigation; 3 trees will experience minor encroachment less than 20% of the TPZ; no trees will experience encroachment greater than 20%; and 1 tree was undersized.
- 10 oaks were listed in the Erosion Control Area A, and no oaks require removal in Erosion Control Area A; 2 trees will experience minor encroachment up to 20% of the TPZ; and 1 tree was undersized.
- 19 oaks were listed in the Erosion Control Area B, and no oaks require removal in Erosion Control Area B, 4 trees will experience minor encroachment up to 20% of the TPZ, and 1 tree will experience encroachment greater than 20%.
- 61 Oaks were listed in the Borrow area, and 6 protected Oaks requiring removal in the Borrow area, tree numbers 175, 178, 179, 181, 245, and 250, equaling 68

diameter inches for mitigation. There are 4 trees which will experience minor encroachment. Four trees were under 6 inches diameter.

- Other Trees – these trees were outside of the shown construction areas and adjacent to the road on the freeway side of the property. Three trees were listed, 0 trees requiring removal, and 1 tree will have fencing alongside the road encroaching 10% into the TPZ. Because the road is existing, it is not considered new encroachment.
- Depending on site use, 3 trees may need risk mitigation, 1 in the Weir site, and 2 in the Borrow site.

Eighteen trees of the 174 total trees are proposed for removal. A total of **263 diameter inches** will be the required mitigation for oaks being removed in the 4 project areas.

All the data from the tree inspection is included in the attached tree list titled Antelope Creek Flood Control Project Tree List for Weir, Borrow, ECA A, and ECA B. The trees to be removed are shaded yellow, the trees with TPZ encroachment are shaded green, and the trees in poor high risk condition are shaded red.

Introduction

The oak trees are growing in four separate areas. The oak trees in the Borrow and Weir areas, will be affected primarily by grade changes in the proposed project. The travel road between sites was also included in the tree list and encroachment mitigation plan.

The intended use of this Arborist Report is to provide the City of Roseville and the project manager, with the following information:

1. A description of inventoried trees including tag numbers, tree species, diameters, driplines, and conditions.
2. A summary of oaks being removed and their diameter inches for use in determining tree mitigation.
3. Specific and general preservation measures, by tree number, for trees not removed.

Inventory Methods

Only native oak trees were inventoried for this project. Protected oak trees have diameters equal to or greater than six inches at 54" above ground (diameter at breast height-DBH). Multiple trunk oak trees greater than 10 inches are also protected. Many trees close to the 6 and 10 inch sizes were measured, and some were included in the inventory and listed as

undersize. All trees were inventoried and measured as a single trunk or multiple trunks where the DBH was extrapolated for mitigation requirements. The total of diameter inches for removed trees was used to calculate mitigation inches.

Each tree's largest crown dripline radius was paced. The crown dripline radius measure is the lateral branch outward growth from the main trunk. Leaning trees have a distorted drip line such that the canopy may be offset and extend very far from the trunk. Simply outlining the canopy does not provide the necessary crown radius for soil protection. The length of the lateral branch growth was used to define the tree protection zone. The Tree Protection Zone (TPZ) was calculated for trees to be retained. The TPZ is a circle with the trunk in the center, equal to the largest crown radius plus one (1) foot. The radius is measured from the trunk at the base of the tree to the greatest extent of the tree's dripline. If the TPZ is encroached upon by the proposed construction to an extent greater than 20% of the dripline, additional mitigation will be discussed.

The condition of each tree is considered when determining a tree's rating according to the following categories: good, fair to good, fair, fair to poor, poor, very poor, and dead.

Good (G): A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.

Fair to Good (F-G): Tree has a slight decline in vigor, small amount of twig dieback, minor structural defects that could be easily rectified.

Fair (F): Tree has moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.

Fair to Poor (F-P): Tree is in decline, epicormic growth, and extensive dieback of medium to large branches, epicormic sprouts, and significant structural defects that cannot be mitigated.

Poor (P): Tree is in a severe decline, dieback of scaffold branches and/or trunk. Most of foliage from epicormic sprouts: extensive structural defects that cannot be mitigated.

Very Poor (VP): The tree is in such decline, most of the branches are dying or dead, the trunk may have significant decay, and the tree is in a deteriorating condition that cannot be mitigated, and for site safety may need to be removed.

Dead (Dead): The tree has no living tissue. There were some trees included in the previous Frizzell inventory that were found to be dead. Those trees were included and noted in the inventory.

Planning Letter Responses

The following are responses to comments noted in the March 27, 2015 Planning Division Letter:

- o 3. The drip line shown on the plans needs to match the drip line in the Arborists report. Response: The drip lines on plans and in the arborist report are now coordinated.
- o 4. Tree 181 is on the west side of the limit of work on the Borrow Site. Response: This tree is now included in the arborist report and shown on the plans.
- o 5. There were apparently trees shown on the plan that were not listed in the arborists report. Response: All trees on the plan are included in the arborists report.
- o 6. Trees on the Borrow site were not shown with protective fencing. Response: All trees on the plans will be shown with appropriate protective fencing as needed. Slopes will have the fencing where needed.
- o 7. Tree numbers are not shown on the plan, and there is no indication they were inventoried. Response: All trees shown on the plan have been tagged, labeled on the plans, and listed in the Arborist report.
- o 8. Some trees do not appear to have been tagged recently. Response: All trees where the tags were not visible have been tagged by the Arborist and included in the Arborist report.
- o 9. Tree #268 was listed in the Arborist report as having 50 inches DBH, but a dripline radius of only five feet. Response: Tree 268 was found to have a DBH of 7, not 50, and a spread of 10. There may have been a data entry error on the last submittal.

The notes and tree protection information should be included on the construction plans so all crews working on the project can see the tree protection plan, understand the importance, and protect the trees.

A pre-construction meeting will be held with the arborist before any grading or construction activity occurring on site – including placement of equipment, trailers, etc. Any new subcontractors joining the construction team will need to be briefed about the tree protection plan.

Specific Recommendations

The Roseville code states in section 19.66.030 B. 2. Tree Permit. A Tree Permit is required for any regulated activity within the protected zone of a protected tree where the encroachment exceeds 20 percent of the protected zone, or where the regulated activity is related to a discretionary project. In addition, a Tree Permit is required for the removal of any protected tree, unless otherwise exempt by this chapter.

One tree will have encroachment greater than 20% of the TPZ impacted by this project. Tree number 361 is alongside the paved bicycle path which already encroaches into the TPZ. The

recommended mitigation for this tree is to place the protective fence as close to the bike path as possible and protect the remaining soil in the TPZ from compaction using a 4" mulch layer for people, 6 inch deep mulch layer for light equipment, and steel plates over 6" mulch layer for heavy equipment.

For the trees growing next to existing roads on the site, if the vehicle traffic is off the old road, a geotextile fabric can be laid over the existing soil, and covered by the appropriate depth of wood chip mulch over the soil, and gravel over the roadway steel plates should be used for heavy equipment within the TPZ. Otherwise, the protective fencing can be placed alongside the roadway to keep vehicles from driving over soil alongside the roadway.

Protective Fencing

Type. Type of fencing shall be a minimum five (5) foot high chain link or a substitute fence approved by the City, and shall be installed at the outermost edge of the TPZ of each protected tree or groups of protected trees. Exceptions to this policy may occur in cases where protected trees are located on slopes that will not be graded, or within the creek area where work will not occur. However, approval must be obtained from the City Planning Department to omit fences in any area of the project. The simplest protection method is to fence off a large area of trees from the construction activities.

Installation. The fences shall be installed in accordance with the approved fencing plan prior to the commencement of any grading operations or such other time as determined by the review body. The developer shall call the City Planning Department for an inspection of the fencing prior to grading operations.

Signing. Signs shall be installed on the fence in four (4) equidistant locations around each individual protected tree. The size of each sign must be a minimum of two (2) feet by two (2) feet and must contain the following language:

"WARNING: THIS FENCE SHALL NOT BE REMOVED OR RELOCATED WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OF ROSEVILLE PLANNING DEPARTMENT"

Signs placed on fencing around areas containing protected trees shall be placed at approximately fifty (50) foot intervals. Signs placed on fencing around individual protected trees shall be placed on the 4 sides of the TPZ in clear view of site activities.

Maintenance. Once set-up approval has been obtained, the fences shall remain in place throughout the entire construction period and shall not be removed, relocated, taken down, or otherwise modified in whole or in part without prior written authorization from the City Planning Department.

If there is any approved work that must occur within the fenced area, the fences shall remain in place until the scheduled work is ready. Soil protection covering ranging from six inches of mulch for people and hand work; to eight inches of mulch for light equipment; to steel plates over eight inches of mulch for heavy equipment. The fence shall be put back at the end of work each day, and when the work is complete, the fence shall remain intact throughout the remainder of the construction unless prior written authorization is obtained from the City Planning Department.

If approved work is required inside the protective fencing, protection from soil compaction shall be performed by either bridging over the soil with plates or plywood, or placing six inches of wood chip mulch over the soil before entering the protected zone to avoid soil compaction. Protection from impact to the tree shall also be protected either by using a second fence or some accepted trunk or branch wrap to protect from impact damage. The fence shall be opened for the work, and closed at the end of each work day. When the work in the TPZ is complete, the fence shall be replaced.

General Recommendations

Successful preservation is based on long-term survival, health, and structural stability of trees and focuses the efforts on those trees offering the best potential to be assets to the site for years to come.

Grade changes and physical wounding are the most common impacts of construction during site development. Grade changes, including trenching, can cause root loss, root wounds, disruption of soil biology, changes in ground water flow, and root disease. Demolition and construction techniques can also cause a great deal of soil compaction. Compacted soils limit the availability of water and oxygen, which is vital to healthy root development. Compacted soils are not easily mitigated. Mechanical stripping or scalping of soils on root zones is very detrimental because it can change the soil properties and remove organic matter and duff layers.

Physical wounding can injure the root crown, trunk, and branches. All wounds can lead to wood decay, causing energy depletion, and potential branch or whole tree failure hazards. Prevention of construction impacts and injuries during work on the site are more effective and less costly than repairing or mitigating the impacts or injuries.

Any change to an established tree's environment can cause its decline and death. The following specifications, if implemented, will give trees that have been delineated for protection, the best possible chance for long-term survival.

The following specifications should be printed on all applicable construction and site plans and provided to all contractors and subcontractors involved in the development process. A pre-construction meeting can be beneficial to further clarify the tree protection plan.

General Recommendations suggested for Demolition Phase¹

1. The demolition contractor is required to meet with the project arborist at the site prior to beginning work to review all work procedures, access and haul routes, and tree protection measures. The limits of all TPZ's must be staked by the project arborist and contractor in the field.
2. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a qualified tree service contractor, or under the supervision of the project arborist. The tree removal shall be completed in a manner that avoids damage to the tree(s) and understory to remain.
3. Trees to be removed from within the TPZ's of protected trees must be cut near ground level. If stumps must be removed, they will be ground out – not excavated or grubbed out. In most natural areas, the stumps can remain if no work requires their removal.
4. All downed brush and trees must be removed from the TPZ's either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out, not by skidding it across the ground.
5. Brush and branches must be chipped and placed in the TPZ's and spread to a depth of 3-4 inches.
6. If injury occurs to any tree during construction, it shall be reported immediately to the project arborist so remedial action can be implemented. Timeliness is critical to tree health.

General Recommendations suggested for Construction Phase²

1. Before beginning work, the contractor must meet with the project arborist at the site to review all work procedures, access routes, storage areas, and tree protection measures.
2. The project arborist shall monitor any grading, trenching, construction, or other work that is expected to encounter tree roots.

¹ *Trees and Development*, Matheny & Clark, International Society of Arboriculture, Champaign, IL, 1998

² *ibid*

3. If injury occurs to any tree during construction, it shall be reported immediately to the project arborist so remedial action can be implemented.
4. Any roots exposed or damaged during grading or construction shall be kept moist until root pruning is complete and the protected roots are covered with soil again.
5. Construction trailers, traffic, and storage areas must remain outside protection fencing at all times.
6. No materials, equipment, spoil, waste or washout water, fuel, or oil may be deposited, stored, or parked within the protected zones.
7. Additional tree pruning required for clearance during construction must be approved by the project arborist and performed by a qualified tree service contractor.
8. No signs, ropes, cables, or any other items shall be attached to protected trees.
9. If temporary haul or access roads must pass over the root area of trees to be retained, a roadbed of 6-inches of mulch or gravel shall be created to protect the soil. The roadbed material shall be replenished as necessary to maintain a 6-inch depth.
10. Spoil from trenches or other excavations shall not be placed within the protected zones, either temporarily or permanently.

Other testing or examination: No other additional tests or examination were requested or found necessary at this time. If the trees are pruned, the climber should perform an aerial inspection and check for weak crotches, weak branch attachments, and any decay in the upper crowns of the trees.

Discussion: The trees are growing in a natural un-maintained setting. None of the trees at this location are in good condition, as anticipated in natural unmaintained settings. The trees range from fair to fair to poor, to poor, to very poor, to dead. Two of the trees, number 157 and 267, Valley Oaks, were found to have severely split trunks, and require either the area in the fall zone to be excluded of site users, or mitigation ranging from pruning and cabling or bolting to removal, to reduce the high risk of failure. Tree number 157 is in the Borrow Site on the south side of the work area beyond the power lines. Tree number 267 is in the Weir Site near the top of the slope above the south side of the creek. A third tree, number 172, a Valley Oak, is uprooting and leaning across the creek in the Borrow Site. This tree should be pruned to reduce the leverage and reduce the failure uprooting the creek bank, or removed.

The remaining trees on the property will continue to grow in a natural condition around the flood control site use. The value and benefits these trees provide should be considered in the decision process of future pruning and removal. If site use increases, trees with people or equipment targets under the tree canopy should be managed for risk over time. Risk management can range from site exclusion to pruning, to removal as appropriate for the conditions present.

Discussion on Pruning

The objective of the pruning should be to improve structural integrity of the branch attachments, and reduce leverage on the longest heaviest branches while retaining as large a natural shape of the crown as possible. The pruning to be performed should have clear target branches to remove, and focus the pruning in the outer third of the crown. The branches that have long end weight and leverage should be reduced or shortened from 10% to 20% of the foliage and weight leverage on the branch attachment points, as specified. The weight and leverage reduction should be accomplished with reduction cuts made to long branches shortening them to large laterals; branch removal cuts to remove downward growing branches, and upward growing branches; removing branches extending outward or downward from the aesthetic natural shape of the crown, and removing dead branches. The removal of dead branches will support the monitoring of the condition of the tree. By starting the monitoring without dead branches, it will be simpler to see when branches die over time, and monitor the pace and amount of dead branches that may occur.

While the tree workers are in the crown of the tree, they should be looking for any split branch attachments, broken branches, cavities, or abnormal twists and bends in the branches, and reduce or remove branches as appropriate to mitigate the defects. The decisions on which branches to be removed should be made with the intent to improve the long term structure, and retain at least 75% of the overall existing foliage on the trees.

Over the life of the trees, they will need to be monitored so that if conditions change, mitigation work can be performed to continue to reduce the likeliness of branch or whole tree failure as appropriate for the situation.

Management Options

The management options for trees to be retained on site range from doing nothing to tree removal.

- Do nothing – the presence of dead branches and leverage weight have a likelihood of some branch failure in the future. Some trees may fail without managing leverage.
- Natural Pruning - pruning less than 25% of the live foliar crown - This targeted amount accomplishes the reduction of branch leverage and focuses the reduction in the areas most likely to fail in the future.
- Extensive pruning – pruning more than 25% of the crown will remove more branches and leverage that reduce risk. Significant foliage reduction also removes the food source for the tree (because the leaves feed the tree), often producing a large amount of branch sprouting response to put leaves back, that will need to be pruned in the future. For the optimum structure, the trees should be pruned to remove the weak and

leveraged branch tips. Because harsh pruning of greater than 25% of the foliage will require a follow up pruning visit to manage sprouts, the best practice is to plan on pruning the tree over two visits and slowly shape and reduce the crown to a more manageable level.

- Remove the trees – Tree removal will reduce the risk of branch failure and also remove the benefits of shade, screen, and natural element to the property.

The optimum specifications for future growth management and branch failure risk reduction should be considered where changes to site activities may increase the risk of people, structures, or equipment being a target for branch failure or whole tree failure.

A basic risk reduction practice for all trees includes: Prune dead branches 1-inch diameter and greater at the branch attachment point. Pruning work should be performed in the outer 1/3 of the crown. Long branches emanating from included bark crotches should be reduced by 15% leverage weight from the ends. Branches emanating from decayed areas on the trunk or parent branches should be reduced by at least 15% leverage, and up to 33% leverage depending on the quality of the attachment. Severely decayed stems may require removal to reduce the risk of failure. In more natural areas, where people are not “invited” to occupy, dead and dying trees may be left for habitat and natural decomposition. The areas under these habitat trees should discourage site use by design or signage.

During pruning work, perform aerial inspection on branch attachments, the wood remaining at the branch breakage points of earlier failures, and when selecting where to make the pruning cuts. If any significant defects are found, contact the tree owner immediately to determine if the work should continue following the existing specifications, or revise the specifications for additional pruning or tree removal.

The 12 trees to be removed in the Weir site are trees number 223, 224, 225, 226, 227, 228, 229, 230, 275, 277, 405, and 415, and the diameter inches are: 12, 20, 6, 15, 7, 19, 31, 25, 23, 10, 15, and 12, for a total of 195 inches. The six trees to be removed in the Borrow site are trees number 175, 178, 179, 181, 245, and 250, and the diameter inches are: 19, 16, 7, 7, 8, and 11, for a total of 68 inches. 263 total inches will need to be mitigated.

A total of 13 trees will experience TPZ encroachment. There are 15 trees, number 171, 176, 241, 243, 260, 319, 321, 325, 340, 342, 352, 357, 360, 362, and 412 that will experience encroachment of the TPZ up to 20%. There is 1 tree, number 361, that will experience greater TPZ encroachment than 20%.

Six trees were under the 6” DBH protected tree size.

Conclusion: In total 174 trees were found on the site. Of these 16 trees are proposed for removal, six trees were undersized, and one tree will experience encroachment greater than 20% of the TPZ.

Twelve trees are proposed for tree removal equaling 263 inches for mitigation. According to County ordinance, the 263 inches of replacement trees need to be planted on site, or paid into a county tree mitigation fund. There is space to plant the mitigation trees on the site. Also, the trees could be planted in another area desired of the City, or the mitigation can be accomplished by paying into the City's In-Lieu Mitigation Fee per section 16.66.070 D.

Three trees should have some risk mitigation performed. Trees number 157, 172, and 267 have tree part and whole tree concerns that should be mitigated through cutting weak branches off, or fencing off the fail area where the tree or tree part could impact a target and restricting use, or remove the trees.

Assumptions and Limitations: This report provides information about the subject trees at the time of the inspection. Trees and conditions may change over time. This report is only valid for the trees with the conditions present at the time of the inspection. All observations were made while standing on the ground. The inspection consisted of primarily visual observations to observe and gain information about branch attachments, loading, decay, and hollow portions of the trees.

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that can fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning, and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, landlord-tenant matters, etc. Arborists cannot take such issues into account unless complete and accurate information is given to the arborist. The person hiring the arborist accepts full responsibility for authorizing the recommended treatment or remedial measures.

The placement of tags on trees is temporary. The trees continue to grow, and may grow over the tags, or people using the site may damage the tags. Tags should be placed so they have one inch of movement on the nail. Tags should be considered for replacement on a 3 to 5 year cycle depending on species, environmental conditions affecting tree growth, and the need to identify the trees.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risks is to eliminate all trees.

This report is provided for the use by the Placer County Flood Control and Water Conservation District for the purpose of the Antelope Creek Flood Control Project. This report cannot be used by other people or for other reasons without permission of the author.

Please contact me at 650-740-3461, or gordon@mannandtrees.com, if you have any questions about this report or any other services we provide.

Sincerely,



Gordon Mann
Consulting Arborist and Urban Forester

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Attachments:

Attachment 1 - Antelope Creek Flood Control Project Tree list for Weir, Borrow, ECA A, ECA B

See Project plan pages E-02, E-03, and E-04 showing the tree numbers and protection fencing

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
Weir Site - 73 trees								
1	223	VO	12	9	10	na	F	on bank
2	224	VO	20	24	25	na	F	on bank
3	225	VO	6	5	5	na	F-P	co-dominant stems
4	226	VO	15	12	13	na	F	
5	227	VO	7	7	8	na	F-P	3 leaders, included bark,
6	228	VO	5	7	8	na	undersize	undersized
7	229	VO	19	22	23	na	F-P	Leans under 230, Incl bark
8	230	VO	31	24	25	na	F	old #45, co-dom, on slope
9	261	VO	32	27	28	0%	F	Symmetric crown
10	262	ILO	20	0	0	0%	Dead	dead branches, dieback, decay
11	263	ILO	9	12	13	0%	VP	Suppressed
12	264	VO	26	22	23	0%	F-P	one-sided crown, in flood plain
13	266	VO	19	23	24	0%	F	old #47
14	267	VO	32	27	28	0%	VP	old #48, split down trunk > cable, bolt, remove
15	268	ILO	7	10	11	0%	P	Under 270
16	269	ILO	8	12	13	0%	P	Under 270
17	270	ILO	23	16	17	0%	VP	Decay, dead branches, on bank
18	271	ILO	33	26	27	0%	VP	Severe decay, top broken, on bank
19	272	ILO	25	18	19	0%	F	on bank
20	273	ILO	18	16	17	0%	F	On slope and steep grade
21	274	VO	23	22	23	0%	F-P	Top of slope, branches touching ground
22	275	BO	25	22	23	0%	VP	Decay at base, dieback - 1/2 dead
23	414	ILO	13	15	16	na	P	included bark, on bank
24	277	BO	23	19	20	0%	F-P	endweights, dieback
25	278	VO	10	8	9	na	VP	Topped under wires
26	284	ILO	9	12	13	0%	F-P	Crowded to 280
27	279	BO	16, 15 (25)	5	6	0%	VP	dieback, small suckers remain, under wires
28	280	ILO	14, 9	15	16	0%	F-P	Co-dom @ 3',
29	282	BO	5	7	NA	0%	undersize	undersized
30	283	VO	10	8	9	0%	VP	Topped under wires
31	284	ILO	11	10	11	0%	F-	crowded on bank
32	286	BO	19	17	18	0%	F	Under powerlines

Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
33	287	ILO	7	8	9	0%	P	Crowded, under 288
34	288	BO	16	20	21	0%	VP	one-sided, under 286
35	289	BO	9	16	17	0%	F-P	on side of bank
36	290	ILO	7, 4, 4, 5, 5, 7, 6, 6	10	11	0%	VP	8 stems crowded, incl bark, sprouts
37	291	ILO	7, 4, 4, 5, 2	8	9	0%	VP	5 stems, crowded, incl bark
38	292	VO	5	5	NA	0%	undersize	undersized
39	293	BO	9	12	13	0%	F-P	one-sided
40	300	ILO	8	12	13	0%	P	multi stem sprouts
41	301	ILO	4	8	NA	0%	undersize	undersized
42	302	ILO	16	0	0	0%	Dead	cracked off
43	303	ILO	21	21	22	0%	VP	Decay at base
44	304	ILO	25	6	7	0%	VP	broken stem, sprouts remain
45	305	ILO	21, 20, 6, 5	14	15	0%	VP	4 stems, basal decay, included bark, dieback
46	306	ILO	13	11	12	0%	VP	Decay at base, old split leader, on slope
47	307	ILO	28	13	14	0%	VP	Broken leaders, 1 stem, decay, dieback
48	308	ILO	11	9	10	0%	P	multi stem, low growing
49	309	ILO	26	0	0	0%	dead	
50	310	ILO	16	15	16	0%	P	dead branches, dieback, decay
51	311	ILO	16	12	13	0%	VP	Broken leader, decay
52	312	ILO	28	16	17	0%	P	2 stems, on slope
53	313	ILO	35	24	25	0%	VP	Stem decay, dieback, broken branches
54	314	VO	29	28	29	0%	F	conserve with fencing
55	315	BO	27	25	26	0%	F	conserve with fencing
56	316	BO	30	23	14	0%	F	conserve with fencing
57	317	ILO	24	21	22	0%	P	Codom, in flood area
58	318	ILO	10	9	10	0%	F	Co-dom, in flood area
59	319	ILO	17	21	22	5%	F-P	one-sided to south
60	320	ILO	12, 9, 12	11	12	0%	F-P	3 stems at base
61	321	BO	16	25	26	10%	F-P	one-sided to south
62	322	BO	17	24	25	0%	F-P	one-sided to south
63	323	BO	13	18	19	0%	F-P	one-sided to south
64	324	BO	8	8	9	0%	F	Small crown
65	325	BO	35, 14	29	30	10%	F	Under powerlines

Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
66	326	BO	20	19	20	0%	F	
67	327	ILO	21, 24, 18, 11, 7	20	21	6% over road only	VP	5 stems, basal decay, stump sprouts, decay; fence at road
68	328	ILO	16, 15	18	19	0%	F-P	one-sided on bank
69	329	VO	12	13	14	0%	P	one-sided crown, on bank, closed to 330
70	330	ILO	11	12	12	0%	P	One-sided crown, on bank, closed to 329
71	401	VO	6	7	8		F	in flood plain area
72	402	VO	15, 12	15	16	0%	P	2 leaders @ base, 2 leans, co-doms
73	403	VO	13, 18, 19	18	19	0%	P	3 leaders @ base, co-dom, lean
74	404	BO	9	16	17	0%	F-	crowded on bank
75	(old 265) 405	ILO	7, 10 = 15	13	14	na	VP	co-dominant stems, 4 stems, 2 dead, severe lean, decay at base
76	406	BO	12, 10	13	14	0%	P	Severe lean E
77	407	ILO	21	24	25	27% over road only	P	alongside road, road encroachment only; fence near road
78	408	BO	35	21	22	40% over road only	F	Along road, road encroachment only, co- dom, decay; fence at road
79	409	BO	24	20	21	10% over road only	P	Dead half of tree, along road, road encroachment only; fence at road
80	410	BO	23	22	23	0%	F	in drainage channel
81	413	ILO	11	15	16	0%	P	in creek bed
82	415	ILO	12	15	13	na	P	lean, crowded, in creek bed

Weir Site: Total 82 trees; 12 trees removed - 12+20+6+15+7+19+31+25+23+10+15+12 trees removed = 195 inches; 3 trees with minor encroachment up to 20%; 1 tree mitigate for risk; 1 tree undersized

Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
Erosion Control Area A - 9 trees								
83	335	ILO	9	10	11	0%	F	Crowded
84	336	ILO	8	9	10	0%	F	Crowded
85	337	ILO	10	11	12	0%	F	Crowded
86	338	ILO	8	8	9	0%	F	Crowded
87	339	BO	22	18	19	0%	F-P	crowded, one-sided
88	340	BO	16	16	17	10%	F	At south edge of limits of work; slight encroachment
89	341	ILO	10	12	13	0%	F	
90	342	ILO	11, 11	15	16	16%	P	co-dom stems, lean west, next to 2 dead trees
91	343	VO	5	5	NA	na	undersize	undersize

ECA-A Total 9 Trees ; no trees being removed; 2 trees with minor encroachment up to 20% of TPZ; 1 tree undersized

Erosion Control Area B - 19 trees								
92	345	ILO	6	8	9	0%	P	Crook in trunk
93	346	VO	13	12	13	0%	F	Crowded, 1-sided crown
94	347	VO	5	10	NA	0%	undersize	undersize
95	348	VO	9	11	12	0%	F-P	lean, 1-sided
96	349	VO	8	10	11	0%	F-P	crowded
97	350	VO	5, 4	11	12	0%	P	Co-dom stems @ base
98	351	VO	13	14	15	0%	F-P	Crowded
99	352	VO	19	22	23	4%	F-P	Co-dom @ base
100	353	ILO	13	12	13	0%	P	lean
101	354	VO	10	11	12	0%	F	self-correcting lean
102	355	VO	9	7	8	0%	P	co-dom leaders, crowded, suppressed
103	356	ILO	13, 12, 11	21	22	0%	P	3 leaders at base
104	357	ILO	14	16	17	1%	P	Crowded, low branch inclusion
105	358	ILO	12	15	16	0%	P	Crowded, bent top
106	359	VO	6	8	9	0%	P	Crowded, lean over creek
107	360	VO	8	10	11	20%	P	Crowded, lean over bike path
108	361	VO	17	20	21	37%	F-P	Crowded, lean north
109	362	ILO	14	15	16	12%	P	Crowded, suppressed
110	363	ILO	17	16	17	0%	P	Lean north

ECA-B: Total 19 trees; 0 removed; 4 trees minor encroachment up to 20% of TPZ; 1 tree higher encroachment

Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
Borrow Site - 64 trees								
111	157	VO	27, 20	26	27		VP	Trunk split to base, failing, bolt, cable, reduce crown, or remove
112	158	VO	9	7	8	0%	VP	Suppressed, broken top, decay at base
113	159	VO	16	15	16	0%	P	1-sided crown, lean
114	160	VO	22	22	23	0%	F-P	1-sided north, trunk buried, dieback
115	162	BO	30	26	27	0%	F-P	dieback, 1-sided crown
116	163	BO	29	27	28	0%	F-P	leans north
117	164	ILO	46	31	32	0%	VP	decay in trunk & base & branches, dieback
118	165	VO	21	32	33	0%	F	Under wires
119	166	VO	7	6	7	0%	P	Suppressed
120	167	ILO	7	11	12	0%	VP	Lean, co-doms at base, suppressed
121	168	VO	25	26	27	0%	F-P	lean, under wires
122	169	VO	14	16	17	0%	F-P	lean, under wires
123	170	VO	12	16	17	0%	F-P	Leans north, suppressed
124	171	VO	20	26	27	8%	F	Leans northeast
125	172	VO	16	18	19		VP	Leaning into creek, uprooting
126	173	VO	10	11	12	0%	F	Under wires
127	174	VO	19	19	20	0%	F-P	Leans north, under wires
128	175	ILO	19	21	22	na	F	Under wires
129	176	BO	21	22	23	15%	F	symmetric
130	177	VO	7	9	10	0%	F-P	Under 176
131	178	VO	16	16	17	na	F-P	co-dom at 5'
132	179	VO	7	11	12	na	F-P	crowded, 1-sided crown
133	180	VO	16	15	16	0%	F	self correcting lean
134	181	VO	7	11	12	na	F	1-sided crown, on bank, crowded
135	182	VO	8, 4, 5	12	13	0%	F-P	3 stems at base
136	231	VO	11	12	14	0%	F-P	lean west, 1-sided crown
137	232	ILO	16	14	15	0%	F-P	co-dom at base
138	233	ILO	13	12	13	0%	F-P	Crowded
139	235	ILO	7	7	8	0%	VP	leans, rubbing 236
140	236	VO	6	7	8	0%	F-P	1-sided crown, leans south
141	237	ILO	6	7	8	0%	F-P	crowded, lean, 1-sided crown

Yellow = trees to be removed;

green = trees with minor encroachment;

red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
142	238	ILO	7	8	9	0%	F-P	crowded
143	239	ILO	7	12	13	0%	P	lean, crowded
144	240	VO	9	11	12	0%	F	co-dom at 7'
145	241	ILO	50	27	28	6%	P	2 leaders @ base, lean, on bank, co-doms
146	242	VO	15	17	18	0%	F	on bank
147	243	ILO	23	18	19	14%	P	3 leaders @ 3', on steep bank
148	244	BO	15	14	15	0%	F	on bank
149	245	VO	11	13	14		F-P	multi-leaders @ base
150	247	ILO	14	14	15	0%	P	Lean, co-doms at 6'
151	248	VO	11	10	11	0%	F	growing tree
152	250	VO	8	8	9		F	Lean
153	253	VO	20	15	16	0%	P	Co-dom @ 3', lean, 1-sided crown
154	254	VO	28	15	16	0%	F-P	3 co-doms, incl bark
155	255	ILO	17	14	15	0%	P	2 stems @ base, decay
156	256	VO	16	17	18	0%	F-P	lean, growing towards wires
157	257	VO	13	14	15	0%	F	crowded, next to 256
158	258	VO	10	10	11	0%	F-P	crowded, next to 257, 1-sided crown, lean
159	259	ILO	21	17	18	0%	P	Multi stem at 12", incl bark
160	260	ILO	26	18	19	0%	P	3 leaders at base, incl bark
161	365	ILO	11	14	15	0%	P Under 367	
162	366	VO	8	8	9	0%	F	
163	367	BO	22	18	19	0%	F-P	1-sided crown
164	368	VO	7	12	13	0%	P	Lean, under 260
165	369	VO	6	7	8	0%	F	
166	370	ILO	9	11	12	0%	F	
167	371	VO	4	6	NA	na	undersize	undersize, crowded
168	372	ILO	5	6	NA	na	undersize	undersize, crowded
169	373	ILO	6	9	10	0%	P	crowded, lean east
170	397	VO	5	7	NA	0%	undersize	undersize
171	400	VO	5	6	NA	na	undersize	undersize, remove

Borrow Site: Total 61 trees; 6 trees removed - 19+16+7+7+8+11 = 68 inches; 4 trees minor encroachment up to 20% of TPZ; 2 trees risk mitigation; 4 trees undersized

Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions

Attachment 1
Antelope Creek Flood Control Project
Tree List for Weir, Borrow, ECA A, and ECA B

Item #	Tree #	Species	DBH (inches)	Crown Radius (feet)	TPZ (feet)	TPZ Encroach ment %	Condition Rating	Recommendations and comments
172	411	VO	24	18	25		F	Uphill between two roads
173	412	BO	26	20	27	10% over existing road	F	Down hill west of road, creek side of road
174	414	ILO	7	8	9	0%	F-P	Between road and RR tracks

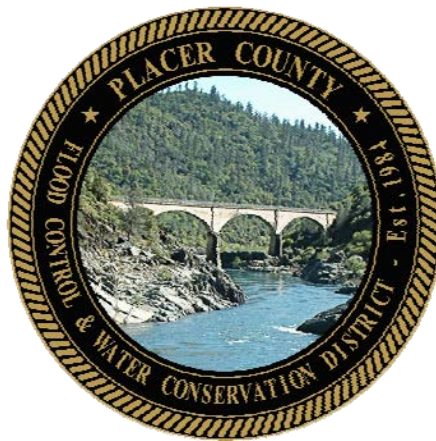
Total Additional trees - 3; no tree removal; 1 tree with minor encroachment of up to 20%

Total trees inventoried in project - 174 trees; Total trees removed = 18 for a total of 263 mitigation inches; 6 trees undersized; 12 trees with minor encroachment; 5 trees with greater encroachment; and 3 trees that should receive risk mitigation

*Yellow = trees to be removed;
green = trees with minor encroachment;
red = trees with high risk conditions*

Draft Initial Study / Mitigated Negative Declaration

Antelope Creek Flood Control Project



Placer County Flood Control and Water Conservation District

November 2013



2365 Iron Point Road, Suite 300
Folsom, CA 95630



Date: November 22, 2013

To: Interested Parties

From: Placer County Flood Control and Water Conservation District

Subject: Notice of Intent to Adopt a Mitigated Negative Declaration for the Antelope Creek Flood Control Project

The Placer County Flood Control and Water Conservation District (District) has prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental effects of the Antelope Creek Flood Control Project. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

The District has prepared a Draft IS/MND in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The Draft IS/MND identifies potentially significant impacts related to: biological resources and cultural resources. All impacts are reduced to less-than-significant levels with implementation of recommended mitigation measures.

The Draft IS/MND is being circulated for public review and comment for a 30-day period beginning on Friday, November 22, 2013 and ending on Sunday, December 22, 2013. The Draft IS/MND may be reviewed at the District's website:

<http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek>

Please send written comments on the Draft IS/MND to Brian Keating, P.E., District Manager, Placer County Flood Control and Water Conservation District, 3091 County Center Drive, Suite 220, Auburn, CA 95603; Fax (530) 745-3531. Comments may also be sent via e-mail to: BKeating@placer.ca.gov. For e-mailed comments, please include the project title in the subject line, attach comments in MS Word format, and include the commenter's U.S. Postal Service mailing address.

Sincerely,

Brian Keating, P.E.
Placer County Flood Control and Water Conservation District

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MITIGATED NEGATIVE DECLARATION

PROJECT: Antelope Creek Flood Control Project

LEAD AGENCY: Placer County Flood Control and Water Conservation District

PROJECT DESCRIPTION: The Placer County Flood Control and Water Conservation District (District) is proposing to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements on a segment of Antelope Creek. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The District is the lead agency under the California Environmental Quality Act (CEQA).

The Draft Initial Study/ Mitigated Negative Declaration (Draft IS/MND) was submitted to the State Clearinghouse on November 22, 2013 for a 30 day public review period. During the public review period the Draft IS/MND was made available for review on the District's Web site, <http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek.com>.

FINDINGS: An initial study (IS) has been prepared to assess the proposed project's potential effects on the environment and the significance of those effects. Using the results of the IS, the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following proposed findings:

- ▶ The project would result in no impacts to agriculture and forestry resources, land use/ planning, mineral resources, population and housing, public services, and utilities and service systems.
- ▶ The project would result in less-than-significant impacts to aesthetics, air quality, geology/ soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/ water quality, noise, recreation, and transportation/ traffic.
- ▶ Although there are currently no nesting raptors that might be disturbed at the project site, mitigation is included to address the potential for raptors to nest at or near the project site prior to construction of the project.
- ▶ Although there are no known cultural resources that might be disturbed, mitigation is included to address the potential for discovering archaeological and/or human remains during the construction phase of the project.
- ▶ The project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.
- ▶ The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- ▶ The project would not have environmental effects that are individually limited but cumulatively considerable.

- ▶ The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.
- ▶ No substantial evidence exists that the project would have a significant negative or adverse effect on the environment.
- ▶ The project incorporates all applicable mitigation measures, as listed below and described in the IS.

The following mitigation measures shall be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed project to a less-than-significant level.

Mitigation Measure 1 - Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

Mitigation Measure 2 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Fish Species

Mitigation Measure 3 - Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers, if Necessary

Mitigation Measure 4 - Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

Mitigation Measure 5 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Species and Sensitive Habitats

Mitigation Measure 6 - Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

Mitigation Measure 7 - Implementation of City of Roseville Tree Preservation Ordinance

Mitigation Measure 8 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State Sensitive Species Western Pond Turtle and Western Spadefoot

Mitigation Measure 9 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

Mitigation Measure 10 - Protection of Prehistoric or Historic Subsurface Cultural Resources

Mitigation Measure 11 - Protection of Human Remains

A copy of the IS follows this MND.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQCR	Air Quality Control Region
BMP	Best Management Practices
BP	before present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CHSC	California Health and Safety Code
CO	carbon monoxide
District	Placer County Flood Control and Water Conservation District
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
GHG	greenhouse gas
IS	Initial Study
I80	Interstate 80
LOS	Level of Service
m	Meter
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MRZ	mineral resource zone
NAAQS	National Ambient Air Quality Standards
NCIC	North Central Information Center
NMFS	National Marine Fisheries Service
NNAG	non-native annual grassland
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides

ACRONYMS AND ABBREVIATIONS

NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
Pb	lead
PCAPCD	Placer County Air Pollution Control District
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
RWQCB	Regional Water Quality Control Board
SMARA	California Surface Mining and Reclamation Act
SO _x	sulfur oxides
SR	State Route
SRA	shaded riverine aquatic
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
UAIC	United Auburn Indian Community
UPRR	Union Pacific Railroad
US	United States
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VELB	Valley elderberry longhorn beetle
VOC	volatile organic compounds

1 INTRODUCTION

The Placer County Flood Control and Water Conservation District (District) has prepared this Initial Study/ Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the environmental consequences of the proposed Antelope Creek Flood Control Project (proposed project) in the City of Roseville, Placer County, California. The District is the lead agency under CEQA.

The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

1.1 PURPOSE OF THE INITIAL STUDY

This document is an IS/MND prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The purpose of this IS/MND is to: (1) determine whether project implementation would result in potentially significant or significant effects on the environment; and, (2) incorporate mitigation measures into the project design, as necessary, to eliminate the project's potentially significant or significant project effects or reduce them to a less-than-significant level. An IS/MND presents the environmental analysis and substantial evidence supporting its conclusions regarding the significance of environmental impacts. Substantial evidence may include expert opinion based on facts, technical studies, or reasonable assumptions based on facts.

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

As specified in Section 15064(a) of the CEQA Guidelines, if there is substantial evidence (such as the results of an IS) that a project, either individually or cumulatively, may have a significant effect on the environment, the lead agency must prepare an EIR. The lead agency may instead prepare a Negative Declaration if it determines there is no substantial evidence that the project may cause a significant impact on the environment. The lead agency may prepare an MND if, in the course of the IS analysis, it is recognized that the project may have a significant impact on the environment but that implementing specific mitigation measures would reduce any such impacts to a less-than-significant level (CEQA Guidelines, Section 15064[f]).

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

1.2 SUMMARY OF FINDINGS

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

- Agriculture and Forestry Resources
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Utilities and Service Systems

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

- Aesthetics
- Air Quality
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Recreation
- Transportation/Traffic

The proposed project would result in potentially significant impacts that would be reduced to below a level of significance with the proposed mitigation on the following resource areas:

- Biological Resources
- Cultural Resources

Thus, with the incorporation of mitigation measures as described in this IS/MND, the project would not have a significant effect on the environment.

1.3 DOCUMENT ORGANIZATION

This document is divided into the following sections:

Notice of Intent to Adopt an IS/MND. The Notice of Availability and Intent to Adopt an IS/MND provides notice to responsible and trustee agencies, interested parties, and organizations of the availability of this IS, as well as the District's intent to adopt an IS/MND for the proposed project.

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

Chapter 1, “Introduction.” This chapter provides a brief summary of the proposed project and describes the purpose of the IS/MND, provides a summary of findings, and describes the organization of this document.

Chapter 2, “Project Description.” This chapter describes the project objectives for the proposed project, provides a general background, and outlines proposed project elements.

Chapter 3, “Environmental Setting, Impacts, and Mitigation Measures.” This chapter presents an analysis of environmental issues identified in the CEQA environmental checklist (CEQA Guidelines, Appendix G), and determines whether project implementation would result in no impact, a less-than-significant impact, a potentially significant impact unless mitigation incorporated, or a potentially significant impact on the environment in each of the issue areas. If any impacts had been determined to be potentially significant, an EIR would have been required. For this project, however, mitigation measures have been incorporated where needed, to reduce all potentially significant impacts to a less-than-significant level.

Chapter 4, “List of Preparers.” This chapter identifies report preparers.

Chapter 5, “References Cited.” This chapter lists the references used in preparation of this IS/MND.

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2 PROJECT DESCRIPTION

2.1 PROJECT SETTING AND LOCATION

2.1.1 Project Location

The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. Antelope Creek Drive crosses the project study area at grade and Roseville Parkway crosses over the project study area. The Creekside Business and Shopping Centers are west and up gradient of the project study area and a Union Pacific Railroad (UPRR) line and Interstate 80 (I-80) are east of the project area. A City of Roseville landfill, which is no longer in operation and has been officially closed, is located adjacent to the project study area. The Antelope Creek Class 1 Bike Path and Recreational trail runs along the creek through the length of the project study area. Figure 2-1 shows the project location and vicinity.

2.2 BACKGROUND AND NEED FOR THE PROPOSED PROJECT

The Dry Creek watershed covers an area of 101.4 square miles in Placer and Sacramento Counties. The majority of the watershed (82 percent) is contained within the limits of Placer County. The headwaters of Dry Creek are located as follows: in the upper portions of the Loomis Basin; in the vicinity of Penryn and Newcastle; in unincorporated Placer County; in the Granite Bay area near Folsom Lake; and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, merge near I-80 and Atlantic Street in Roseville to form Dry Creek. Dry Creek then flows west-southwest through Sacramento County where it empties into the Natomas East Main Drainage Canal, which flows into the American River.

The 2011 Updated Dry Creek Watershed Flood Control Plan (Plan) identifies a series of projects that would help manage flows within the Dry Creek Watershed area of the American River Basin. The primary purpose of the 2011 Updated Plan is to evaluate the hydrology of the watershed and provide recommendations that are both feasible and effective in reducing future flood damages and identifying ways to minimize impacts to development as a result of changed flood conditions. Of the recommended projects in the Plan, the Antelope Creek Flood Control Project near Atlantic Street would provide the greatest reduction in peak flows at Vernon Street in Roseville. As defined in the Plan, the Antelope Creek Flood Control Project near Atlantic Street (proposed project or project) includes a regional flood control project on Antelope Creek upstream of Atlantic Street and downstream of the SR 65 crossing. Antelope Creek is a perennial creek and major tributary of Dry Creek that drains the northeast portion of the Dry Creek Watershed.

As proposed in the Plan, the project would involve the design and construction of two on-channel weirs along an existing open space-protected reach of the creek. The project would meet multiple planning objectives by: improving flood protection and reducing potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improving water quality downstream of the project area; enhancing the existing riparian corridor and habitats; and, improving an existing public recreation corridor.

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Figure 2-1 Project Location and Vicinity



More specifically, the proposed project would:

- Reduce peak flood flows over a wide range of flood events,
- Enrich existing aquatic and riparian corridor ecosystems through habitat restoration,
- Potentially improve water quality through groundwater recharge and natural treatment of temporarily stored flood waters within the floodplain, and
- Enhance recreational opportunities within the floodplain of Antelope Creek, including the Antelope Creek Class 1 Bike Path and Recreational trail.

2.3 PROPOSED PROJECT

2.3.1 Project Objectives

The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Secondary objectives of the project include:

- Improving access at two existing recreational trailheads with new parking options, and
- Restoring aquatic and riparian habitat along Antelope Creek. Key goals for the restoration components include:
 - o Restoring sections of the creek channel and improving floodplain connectivity;
 - o Improving habitat values;
 - o Avoiding or minimizing impacts to large trees and sensitive environmental areas;
 - o Removing invasive and non-native plant species; and,
 - o Ensuring the stream channel remains naturally stable and fish passage is maintained and enhanced.

The recreational and restoration components of the project would provide “beneficial impacts” in the project area and to the environment in general.

2.3.2 Project Overview

The project includes two primary flood control elements along with recreational and aquatic and riparian habitat restoration elements. An overview of these project elements is provided below.

Flood Control: The proposed flood control elements would be constructed in two phases and include two weir structures. Phase 1 (Lower Weir) would be constructed upstream from the UPRR crossing just north of Atlantic Street. Phase 2 (Upper Weir) would be constructed where the multi-purpose recreation trail crosses Antelope Creek, just downstream of the East Roseville Parkway Overcrossing. Figure 2-2 shows the project study area and the project impact areas, including the Phase 1 and Phase 2 weir locations.

Both weirs would include culvert outlet design options that provide a natural streambed bottom. At the Phase 2 (Upper Weir) location, the project would provide a significant benefit to fish by removing existing fish passage barriers to enhance fish passage and allow fish to pass during low flows. Both weirs would be designed to pass low flows without restriction, preserve available storage for peak flood conditions, restrict discharge during the peak of a storm, increase upstream 100-year flood levels by less than five feet, and to overtop at 100-year flood conditions. The proposed weir would also detain flood flows for a short duration to delay the local peak discharge by approximately an hour. Designing the

weirs to detain flood flows for even a short duration would significantly reduce the contribution of Antelope Creek discharges to the downstream peak flows on Dry Creek at Vernon Street in Roseville by as much as 800 cubic feet per second (cfs).

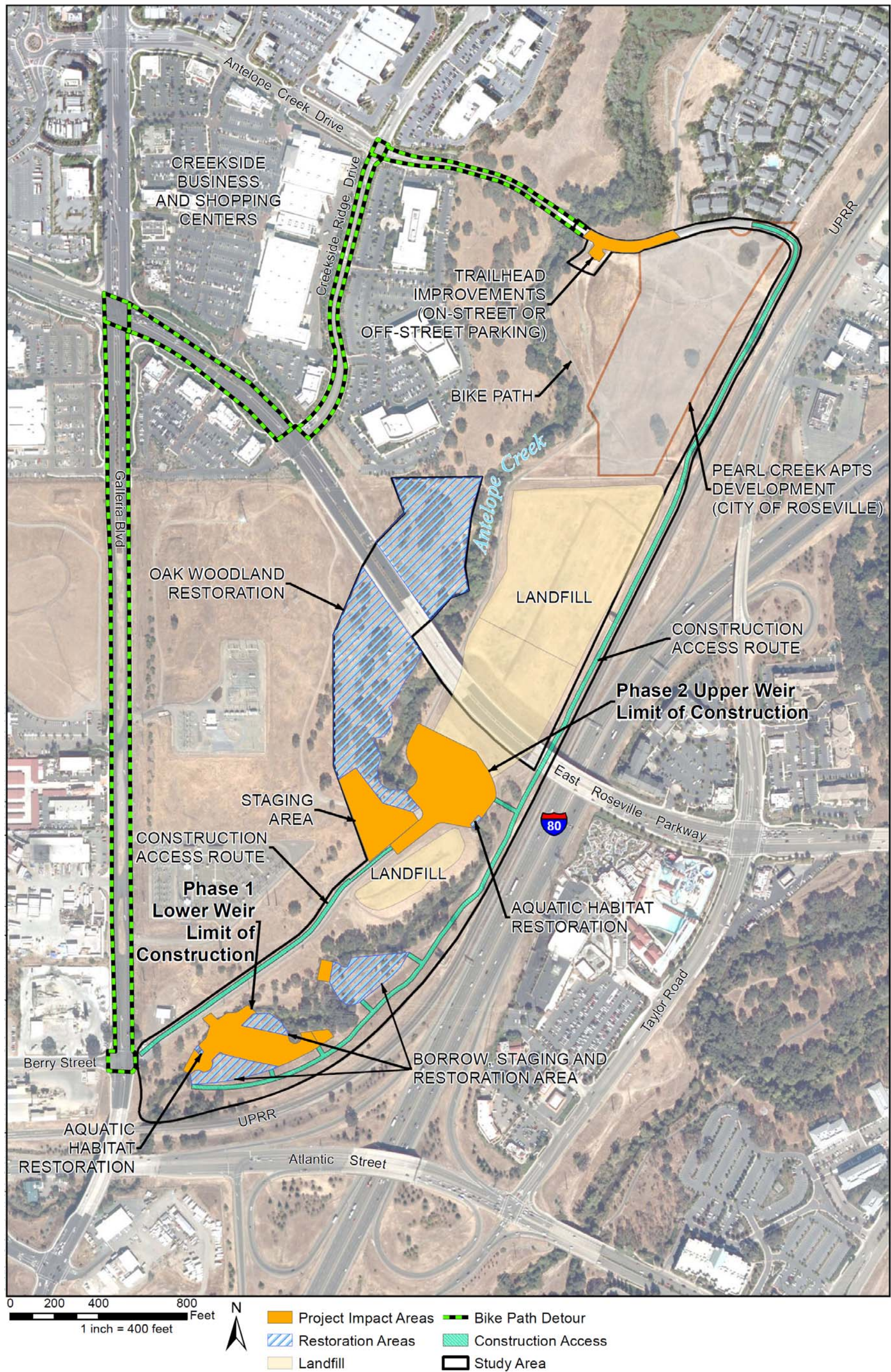
The proposed project configuration would cause 100-year water surface elevations to increase upstream from the weirs; this rise in water surface could reduce the area available for development on some private properties. However, the weir designs would limit this vertical increase in the 100-year base flood elevations to a maximum of less than five feet in the immediate upstream vicinity of both weirs. To minimize the effect of the rise in water surface elevation on these minimal areas, the District could either obtain flood easements from property owners to offset the effects of water being temporarily detained on these properties during flood events or place fill in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy impacts from this change in water surface elevation. In addition, one automated ALERT-type stream level and precipitation gauge would be installed in the project study area. This gauge and an existing gauge near Antelope Creek Drive would help monitor the project's effectiveness over the long-term.

The project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells is such that temporary inundation does not damage the wells or probes, or hamper the use of landfill facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary. Additional details of the proposed weirs are discussed in Section 2.3.3.

Recreation: The proposed recreational element of the project includes improving access to two existing trailheads by providing on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive. Approximately ten stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. See Section 3.15 Recreation and Section 3.16 Transportation/Traffic for a full analysis of potential construction-related recreation and bicycle transportation impacts. In addition, an interpretive exhibit would be installed in the project study area to help educate the public on the project as they utilize the existing multi-purpose trail system. The proposed recreational elements would be consistent with the Dry Creek Greenway Regional Vision Plan (DCGRVP) (Placer County 2004).

Aquatic and Riparian Habitat Restoration: As part of the proposed project, portions of the existing stream channel would be restored to provide enhanced habitat for anadromous (migratory) fish species. The proposed aquatic and riparian habitat restoration components would follow CDFW California Salmonid Stream Habitat Restoration Manual and the U.S. Department of Agriculture Natural Resources Conservation Service's Stream Corridor Restoration Principles, Processes and Practices.

Figure 2-2 Proposed Project Study Area and Project Impact Areas



Aquatic and riparian habitat restoration areas would be located throughout the project study area and would include invasive species removal, stream corridor habitat improvements, fish passage improvements, and oak woodland habitat restoration. Aquatic and Riparian Habitat Restoration Areas are discussed further in Sections 2.3.4 and 2.3.5.

2.3.3 Flood Control Features

Phase 1 (Lower Weir)

The Phase 1 (Lower Weir) site would involve construction of a new flood control structure that includes a low-flow culvert, a primary weir, and a secondary weir. The proposed culvert outlet structure would require clearing of the area in preparation for fill to be placed. Construction would include installing a culvert outlet structure with natural streambed bottom through the use of sediment retention sills to pass low flows and a rock weir at the culvert outlet tailwater. The overall natural channel slope would be maintained to meet fish passage requirements. New fill would be placed in the creek, and along the floodplain for construction of the weir embankment. The culvert outlet structure would be cast-in-place or delivered in precast sections and placed by crane in the channel. Joint sealing would be installed once any precast sections are in place. Fill would be placed in lifts and compacted in place around the culverts. The culvert outlet structure would be approximately 20 feet wide by approximately 140 feet long. The culvert outlet design allows the low flow channel to meet the key objectives of the proposed project and conform to culvert design criteria and stream crossing guidelines of the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS). These criteria and guidelines are contained in the latest version of the California Salmonid Stream Habitat Restoration Manual.

A primary weir with approximately the same width as the low-flow culvert outlet structure would be designed and constructed to overtop during the 15- or 20-year storm event. The secondary weir or the top of embankment would be designed and constructed to overtop during approximately the 100-year flood event. The adjacent, nearby side slopes of the creek would be protected with erosion control mat and/or hard armoring (riprap and articulating concrete block), if needed. Any section of the structure that allows vegetation through the erosion protection material would be vegetated. Oak trees within the limit of construction would be protected to the extent possible. In order to maintain the erosion control mat where it is cut for the opening around an oak tree, the mat would be staked with anchors around the opening to provide space between the mat and the trunk of the oak tree. Figure 2-3 shows the Phase 1 (Lower Weir) Layout.

Phase 2 (Upper Weir)

At this location, the existing culverts and bike path would be removed and a larger and higher weir structure would be constructed. Construction of the Phase 2 (Upper Weir) culvert outlet structure would be the same as for the Phase 1 (Lower Weir) discussed above. The culvert outlet structure would be approximately 20 feet wide by approximately 140 feet long. A primary weir with approximately the same width as the low-flow culvert would be designed and constructed to overtop during the 15- or 20-year storm event. The secondary weir or the top of embankment would be designed and constructed to overtop during approximately the 100-year flood event.

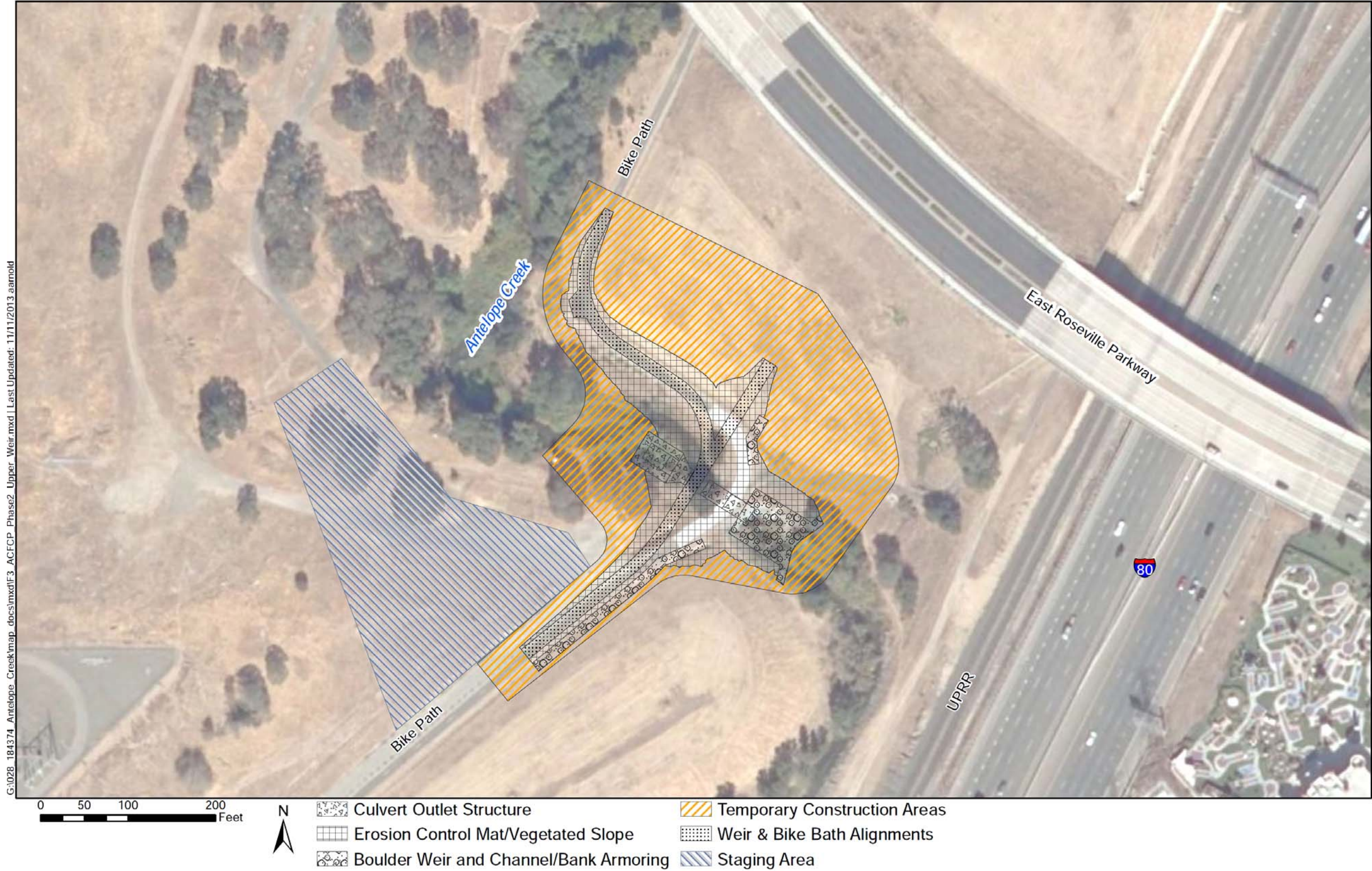
The bike path would be rebuilt on top of the embankment and would meet City of Roseville Design Standards for bikeways. The asphalt pavement width would be 14 feet wide and profile grades would be less than 5%. Fencing would be installed adjacent to the bike path. The adjacent, nearby side slopes of the creek would be protected with erosion control mat and/or hard armoring (riprap and articulating concrete block), if needed. Oak trees within the limit of construction would be protected to the extent possible. In order to maintain the erosion control mat where it is cut for the opening around an oak tree, the mat would be staked with anchors around the opening to provide space between the mat and the trunk of the oak tree. Figure 2-4 shows the Phase 2 (Upper Weir) Layout.

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Figure 2-3 Phase 1 (Lower Weir) Layout



Figure 2-4 Phase 2 (Upper Weir) Layout

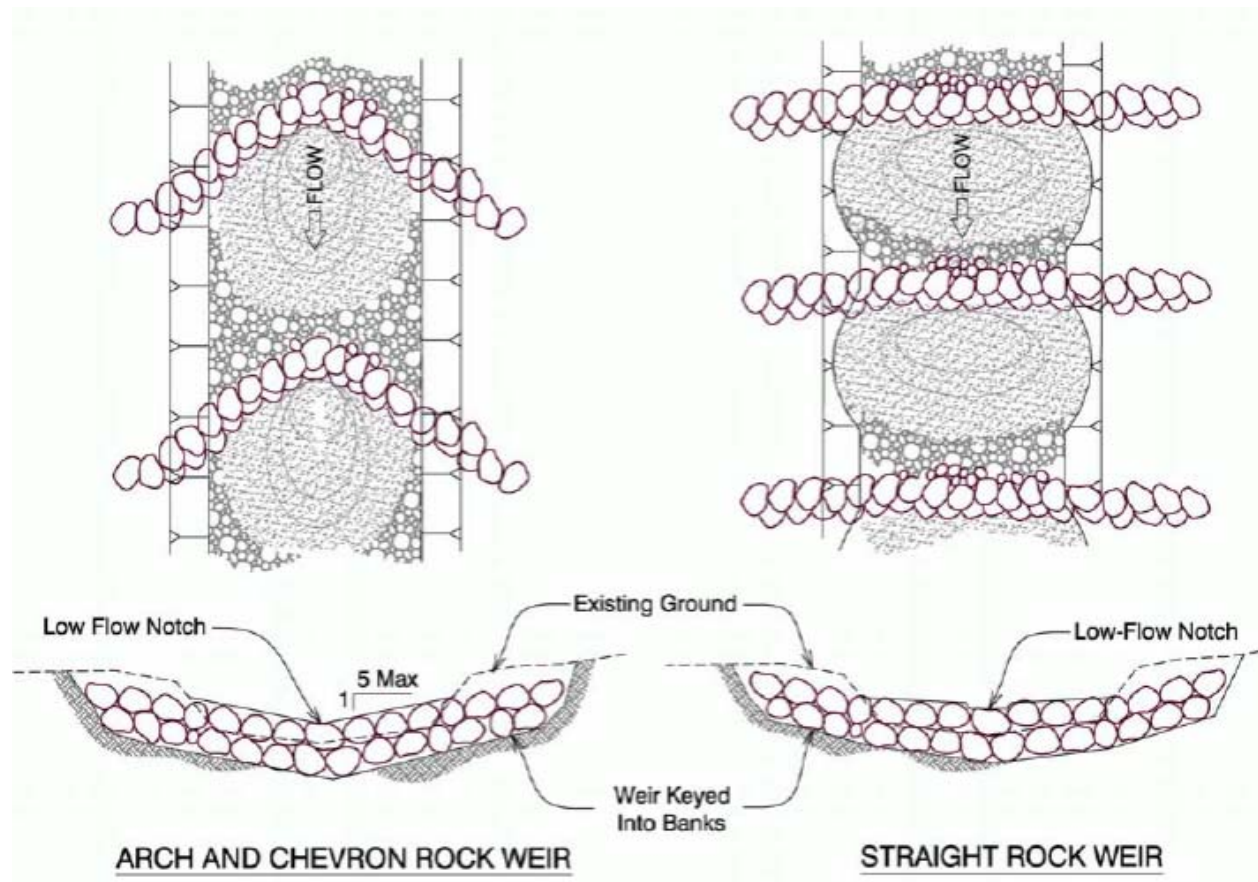


2.3.4 Aquatic Habitat Restoration

Aquatic habitat restoration components include both channel grading for enhanced natural-channel morphology and construction of in-stream structures. Possible in-stream features include large wood structures, boulder clusters, and embedded weirs. Wood structures can be constructed from root wads and logs anchored to existing on-bank large trees or imported large boulders. These structures are being considered in various locations throughout the project study area to increase channel complexity and hydraulic diversity and enhance spawning and rearing habitat for migratory salmonids.

Boulder weirs would be constructed downstream of the Phase 1 (Lower Weir) and the Phase 2 (Upper Weir) sites to provide creek profile control and pool habitat formation. The boulder weirs would be constructed per the CDFW's California Salmonid Stream Habitat Restoration Manual guidelines for rock weirs. Given the low slope of the channel and lack of channel entrenchment, the boulder weirs would not have to be very robust. The boulder weirs would span the creek channel (approximately 50 feet wide) and would be embedded into the channel bottom. The cross slope of the weirs would be 5% or less and the weir ends would be extended into the banks to minimize risk of flanking. Figure 2-5 shows examples of conceptual rock weirs from the California Salmonid Stream Habitat Restoration Manual. Figure 2-6 shows the locations of proposed aquatic habitat restoration.

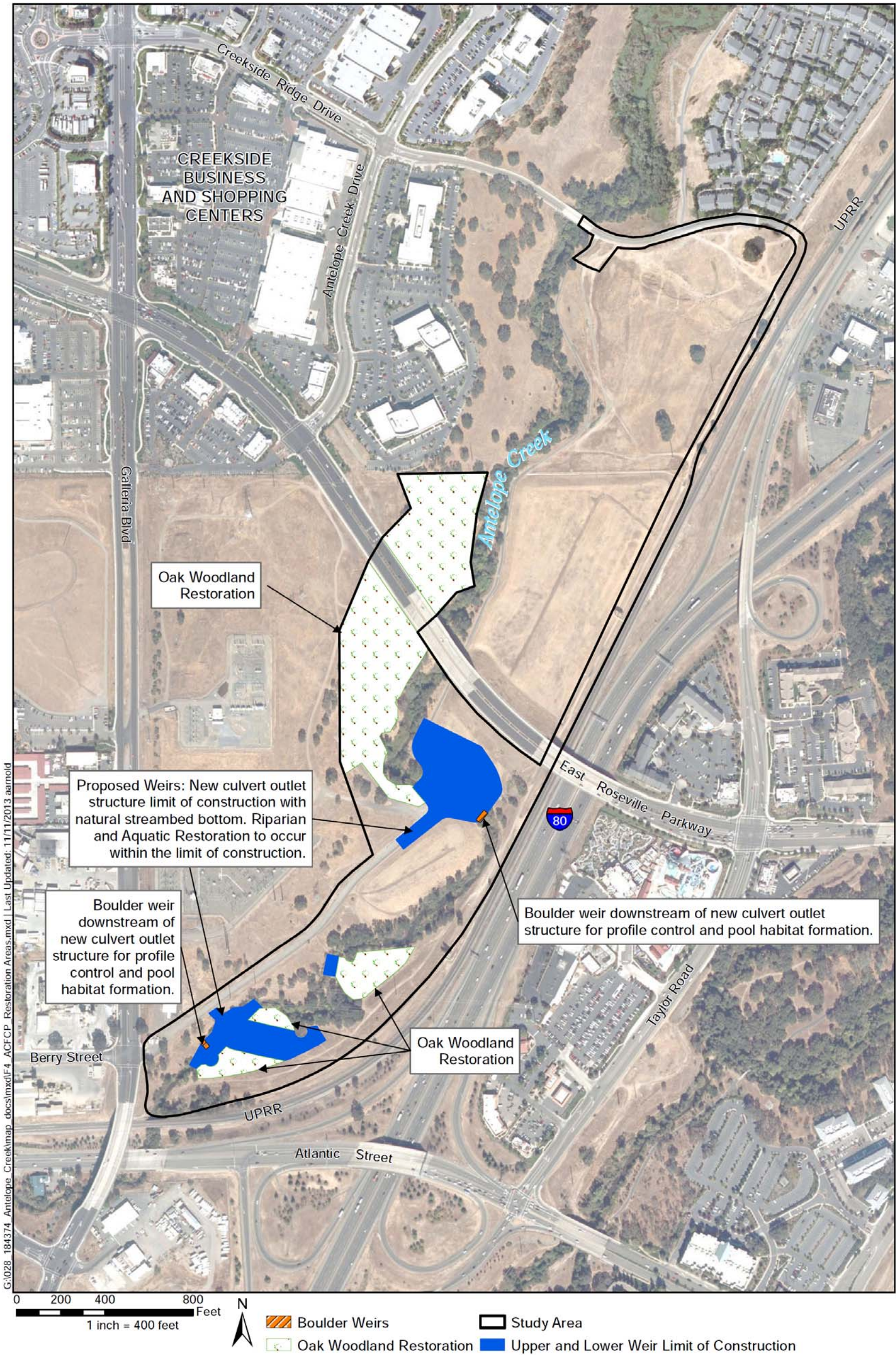
Figure 2-5. Example of Conceptual Rock Weirs



Source: State of California, 2010.

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Figure 2-6 Proposed Aquatic, Riparian, and Oak Woodland Habitat Restoration Areas



2.3.5 Riparian and Oak Woodland Habitat Restoration

Riparian restoration elements would include invasive weed removal in several portions of the project study area. Invasive exotic weed removal is recommended in the areas surrounding the weir sites and the aquatic habitat restoration areas. There are several areas of the invasive weed, Giant Reed (*Arundo donax*) located throughout the project study area that could be removed as part of the proposed project. Removal of giant reed would involve the use of heavy tools (e.g., rotary brush-cutter, chainsaw or tractor-mounted mower) to remove and cut down the majority of the biomass followed by application of chemical treatments to remove the rhizomes or roots. Complete mechanical eradication is extremely difficult, even with use of a backhoe, as buried rhizomes readily re-sprout; therefore, chemical control would be used to achieve eradication. The most common herbicidal treatment against giant reed is glyphosate, primarily in the form of Rodeo®, which is approved for use in wetlands (Round-Up® can be used away from water). Because glyphosate is a broad-spectrum herbicide, care would be taken to avoid application or drift onto desirable vegetation. The most effective chemical treatment of giant reed is post-flowering and pre-dormancy, usually in late July to early October when plants are moving nutrients into roots and rhizomes. After eradication, assessment and treatment should be conducted, and return spot treatments over the following six months may be necessary. (Team Arundo Del Norte 2013)

The project study area also supports some small populations of aquatic and riparian weeds, which would be controlled or eradicated, where possible, within the vicinity of the weir sites. Finally, Himalayan blackberry extends throughout the riparian zone in the project study area and, in some cases, up into adjacent oak woodland habitat. Management of Himalayan blackberry in the vicinity of Phase 2 (Upper Weir) is recommended, but complete eradication is not feasible. Weed control can be done with chemicals in some instances and by manual or mechanical methods in others. Himalayan blackberry can also be managed with goat grazing, mechanical means, and/or correctly timed spraying with appropriately labeled herbicides.

The project study area also supports several areas of oak woodland habitat. Oak woodland mitigation plantings from previous projects in the vicinity are located between the Upper and Lower weir sites and have successfully rooted. In addition to the requirements established under the City of Roseville's Ordinance 19.66.070 for Oak Tree Planting and Replacement, which the project would comply with, oak woodland restoration is proposed in the area north of the Upper Weir along the west side of the creek. In this area, oak trees would be planted along with any replacement plantings or transplanted trees that would be required as mitigation for the project. Oaks, up to two year old and grown in deep five gallon containers, would be spaced such that they do not compete with one another or with established vegetation. Water trucks would be utilized to water the oak trees during the establishment period following planting, at which time the trees should be able to survive without irrigation.

A Tree Planting and Maintenance Plan showing species, size, spacing and location of plantings, and the location and species of established vegetation would be prepared. A monitoring program would also be established to ensure compliance with any prescribed mitigation measures established by the project and to monitor the oak woodland restoration area. The oak woodland restoration area along with any mitigation plantings would be maintained for five to seven years from the date of planting, in accordance with Public Resources Code Section 21083.4. During the five to seven year maintenance period, dead or dying trees would be replaced with trees of the same species and size in order to achieve an 80% survival rate at the end of the maintenance period. If an 80% survival rate is not achieved at the end of the maintenance period, all dead or dying trees at that time would be replaced. Figure 2-6 shows the locations of proposed riparian and oak woodland habitat restoration.

2.3.6 Other Construction Details

Staging Areas and Access

Staging areas and site access must be established for the Phase 1 (Lower Weir) and Phase 2 (Upper Weir) sites to provide room for the use and distribution of materials and equipment. It is anticipated that personnel, equipment, and imported materials would reach the project study area via I-80, SR 65, Galleria Boulevard, Antelope Creek Drive, and Berry Street. Access to the weir sites would be from Antelope Creek Drive on the upstream end of the project study area and by Berry Street from Galleria Boulevard on the downstream end of the project study area. From Antelope Creek Drive, access would run south and along an existing easement parallel to the UPRR line and I-80 to the Phase 1 (Lower Weir) and the Phase 2 (Upper Weir) sites. Berry Street leads to private gravel and/or paved roads that also lead to the Phase 2 (Upper Weir) site. Figure 2-2 shows the proposed construction access routes.

The staging area for Phase 1 (Lower Weir) would be located on the eastern side of the creek adjacent to the Limit of Construction. The staging area for Phase 2 (Upper Weir) would be located on the western side of the creek adjacent to the Limit of Construction and would not encroach on landfill locations. Staging areas would contain contractor's trailers, parking, fencing, and storage of equipment and materials. Figure 2-2 shows the staging areas.

Construction of the proposed project would be coordinated with the City of Roseville to ensure that access to the City's utilities in the project study area is maintained during construction activities.

Borrow Areas

Approximately 24,000 cubic yards of borrow material would be required for construction of both weirs. Excavated material from the Phase 2 (Upper Weir) site would be reused as much as possible and material would only be imported as necessary. Borrow materials would be obtained from onsite borrow areas or purchased from local offsite locations and delivered. The onsite borrow areas are on the east side of Antelope Creek, adjacent to the Phase 1 (Lower Weir) site. Figure 2-2 shows the borrow area locations. If offsite material is necessary, it would be brought to the site from a source within the Sacramento area. Upon completion of the proposed construction activities, borrow areas would be cleared of all equipment, materials, and project refuse, then re-graded for positive drainage toward the creek.

Construction Equipment

Table 2-1 provides a description of the types of equipment likely to be used during construction of the proposed project. Additional equipment may include air compressors to operate tools and other equipment; welding equipment; pumps and piping; communications and safety equipment; and vehicles used to deliver and move equipment, materials, and personnel.

Table 2-1 Construction Equipment

Equipment	Construction Purpose
Backhoe/Front-end Loader	Soil Manipulation and Drainage Work
Bobcat	Fill Distribution
Dozer	Soil Manipulation and Earthwork Construction

Equipment	Construction Purpose
Scraper	Soil Manipulation and Earthwork Construction
Compactor	Soil Manipulation and Earthwork Construction
Concrete Truck	Delivering and Pouring Concrete
Haul Truck	Earthwork Construction and Clearing/Grubbing
Hydraulic Excavator	Deep Excavations
Hydraulic Crane	Place Precast Concrete Span/Box Culverts
Water Truck	Watering of the construction site for dust control and irrigation spraying for restoration areas

Construction-Related Traffic

As noted above, personnel, equipment, and imported materials would reach the project area via I-80, SR 65, Galleria Boulevard, Antelope Creek Drive, and Berry Street. Berry Street and other smaller roads, including the multi-use trail may require repair after construction use due to anticipated heavy loads. The construction labor force is estimated to average 10-15 persons over the construction period for each weir.

Construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. Also, the majority of construction truck traffic would be within the project study area, moving between the staging/borrow areas to and from the weir and restoration sites. These routes do not cross any major roads and therefore, would not impact local vehicle traffic. However, materials would need to be brought to the site from sources within the Sacramento area and would use I-80 to deliver these materials. In addition, some materials and equipment needed for the project would be pre-assembled prior to transport to the project site. The proposed project could generate up to 560 total truck trips on I-80 over both 4-month construction periods; however, the majority of these would occur during the mobilization phase of construction when materials are brought to the site. Thus one-way truck trips from off-site on I-80 would average 30 per month/1-2 per day for the Upper Weir and 110 per month/ 5 per day for the Lower Weir over each 4-month construction period. See Section 3.16 Traffic/Transportation for a full analysis of potential construction-related traffic impacts.

Rip rap and native soil removed at the Phase 2 (Upper Weir) site would be reused to the extent possible in weir construction. Any soil not reused in weir construction would be placed back in the borrow areas or disposed of on-site as directed by the City. Construction debris and waste materials would be disposed of on-site or, if necessary due to contamination, would be transported off-site to a suitable landfill.

Construction Scheduling

A construction period of approximately four months is planned for Phase 2 (Upper Weir) and the restoration elements, beginning in June 2014 and ending in October 2014. Estimated work hours are from 7:30am to 4:00pm, Monday through Friday. Based on funding, Phase 1 (Lower Weir) would be constructed at a later time likely between 2014 and 2019. Phase 1 (Lower Weir) would also have an approximately four month construction window, beginning in June and ending in October. Estimated work hours for Phase 1 (Lower Weir) would also be from 7:30am to 4:00pm, Monday through Friday.

Operation and Maintenance

To provide space for operation and maintenance of the proposed project, the District would utilize existing available easements in the project study area. No additional land is anticipated for acquisition as part of construction of the proposed project. The proposed project would lessen the long-term burden of maintenance and repairs in the project study area and therefore, would not result in substantial changes to operation and maintenance.

2.4 PERMITS AND APPROVALS NEEDED

The following permits, approvals, and reviews would be required for project construction:

Agency	Permit/ Approval/ Review
Federal	
United States (U.S.) Army Corps of Engineers	- Clean Water Act, Section 404 Nationwide Permits #3 and #27 for filling or dredging Waters of the United States - U.S. Fish and Wildlife Service and National Marine Fisheries Service - Federal Endangered Species Act, Section 7 compliance - State Historic Preservation Officer - National Historic Preservation Act, Section 106 compliance
State	
California Department of Fish and Wildlife	Section 1601 of the California Department of Fish and Game Code - Streambed Alteration Agreement
California State Water Resources Control Board	Clean Water Act, Section 401 - Water Quality Certification
Central Valley Regional Water Quality Control Board	- Waste Discharge Requirement No. R5-2004-0104 Amendment for the City of Roseville Landfill - National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit
Local	
City of Roseville	- Tree Permit - Coordination on project planning and consistency with local plans
Placer County	- Solid Waste Facility Permit as part of the post-closure Maintenance Plan for the City of Roseville Landfill (administered through County Health Department/ Cal Recycle) - Coordination on project planning and consistency with local plans
Placer County Air Pollution Control District	Consultation for an Authority to Construct Permit

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Environmental Checklist

This Initial Study is a public document to be used by the Placer County Flood Control and Water Conservation District, designated lead agency for CEQA purposes, to determine whether the project may have a significant effect on the environment. If the Lead Agency finds substantial evidence that any aspect of the project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the Lead Agency is required to prepare an environmental impact report (EIR), use a previously prepared EIR and add a supplement, or prepare a subsequent EIR to analyze the project at hand. If the Lead Agency finds no substantial evidence that the project or any of its aspects may cause a significant impact on the environment, a Negative Declaration shall be prepared. If, in the course of the analysis, it is recognized that the project may have significant impacts on the environment, but these impacts can be reduced to a level that is less-than-significant with specific mitigation measures, a Mitigated Negative Declaration shall be prepared.

This Section provides an evaluation of the potential environmental impacts of the proposed project, followed by the CEQA Mandatory Findings of Significance. There are 17 specific environmental issues evaluated in this Section, which satisfies CEQA requirements. The environmental issues evaluated in this chapter consist of the following:

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

For each issue, one of four conclusions is made:

- **No Impact:** No project-related impact to the environment would occur with project development.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- **Less-Than-Significant Impact:** The impact would not result in a substantial and adverse change in the environment. This impact level does not require mitigation measures.
- **Potentially Significant Unless Mitigation Incorporated:** An impact that is "potentially significant" as described below; however, the incorporation of mitigation measures would reduce the project-related impact to a less-than-significant level.
- **Potentially Significant Impact:** An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project" (CEQA Guidelines Section 15382); however, the occurrence of the impact cannot be immediately determined with certainty.

DETERMINATION (To be completed by the Lead Agency)	
On the basis of this initial evaluation:	
I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
_____ Signature	_____ Date
Brian Keating P.E. Printed Name	District Manager Title
Placer County Flood Control and Water Conservation District Agency	

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.1 AESTHETICS

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

ENVIRONMENTAL SETTING

Views to and from the project study area vary due to the length of the proposed project, and depending upon the location of the viewer, may include portions of Antelope Creek and creek embankments, riparian corridors, oak woodlands, open space, recreational features, roadways, closed landfills, railroad tracks, and residential and commercial development. Portions of the project area are visible to recreational users and adjacent residential and commercial properties. In addition, vehicles can view the project study area when traveling on westbound I-80, as well as on Roseville Parkway as it crosses Antelope Creek.

DISCUSSION OF IMPACTS

- a) No Impact – Because of the low elevation of the project study area relative to the surrounding topography and the amount and type of existing vegetation, views of the project area are largely limited to the immediate vicinity of the project. There are no designated scenic vistas in the project study area (City of Roseville 2013). Therefore, no impact would occur with project implementation.
- b) No Impact – No designated or eligible state scenic highways are located in the vicinity of the proposed project (California Department of Transportation [Caltrans] 2007). Therefore, no impact would occur with project implementation.
- c) Less-than-Significant Impact – Alterations to the visual character of the project study area during construction (i.e., presence of construction equipment and staging areas) would be isolated and temporary, but would be visible to adjacent residents and recreational users. Upon completion of construction activities all equipment would be removed from the project study area. The proposed project also includes two weirs, stream channel and habitat restoration components, including removal of non-native plants and re-planting

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

with natives. Therefore, degradation of the visual character or quality of the site or its surroundings is not anticipated, while improvements to the same are likely, making negative impacts less-than-significant.

- d) No Impact – The proposed project's construction activities would be temporary and would be completed within approximately two-four month periods. To the extent practicable, construction activities would be completed during daylight hours. Security lighting at the staging areas may be required. The proposed project does not include installation of any new permanent sources of light or glare. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project is not anticipated to significantly impact the aesthetic environment including scenic vistas or resources, the existing visual character, and/or result in new sources of light or glare. Because there are no scenic vistas/scenic highways in the project vicinity, change in the visual setting would be small due to limitations in scale, bulk and mass of the weirs and the lack of permanent new lighting associated with the facilities

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3.2 AGRICULTURE AND FOREST RESOURCES

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |

ENVIRONMENTAL SETTING

The project study area is located within and adjacent to the channel of Antelope Creek. The majority of the project study area is located within the floodplain and contains riverine habitats. There are no agricultural or forestry resources located within the project study area. The project area is not designated by the State of California Farmland Mapping and Monitoring Program as prime, unique, or farmland of statewide importance.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a) No Impact – There are no farmlands designated as prime, unique, or of statewide importance located within the project study area, thus the proposed project would not convert any farmlands designated as prime, unique, or of statewide importance to non-agricultural uses. Therefore, no impact would occur with project implementation.
- b) No Impact – No agricultural lands or Williamson Act contracts are located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- c) No Impact – No forest land, timberland, or timberland zoned Timberland Production are located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- d) No Impact – As mentioned under b) above, no forest land is located within the project study area or would be affected by the proposed project. Therefore, no impact would occur with project implementation.
- e) No Impact – See responses to items a), b), and c) above.

CONCLUSION

The proposed project is not anticipated to significantly impact agriculture and forest resources due to the lack of agricultural resources in the project vicinity.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.3 AIR QUALITY

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | ☐ | ☐ | ☒ | ☐ |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | ☐ | ☐ | ☒ | ☐ |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)? | ☐ | ☐ | ☒ | ☐ |
| d) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☐ | ☒ |
| e) Create objectionable odors affecting a substantial number of people? | ☐ | ☐ | ☐ | ☒ |

ENVIRONMENTAL SETTING

The project study area is located in the western portion of Placer County, within the Sacramento Valley Air Basin (SVAB). The SVAB is a broad, flat valley bounded by the Coastal Range to the west, the Sierra Nevada to the east, the Cascade Range to the north, and the San Joaquin Valley Air Basin to the south. The project study area is located within the jurisdictional boundaries of the Placer County Air Pollution Control District (PCAPCD) and is subject to rules and regulations developed by the PCAPCD. The PCAPCD is responsible for implementing and enforcing state and Federal air quality regulations. The air quality within the PCAPCD has been characterized by the U.S. Environmental Protection Agency (USEPA) as a nonattainment area for 8-hour ozone (O₃) and particulate matter equal to or less than 2.5 microns in diameter (PM_{2.5}). However, the California Air Resources Board (CARB) has designated the PCAPCD as a nonattainment area for 8-hour and 1-hour O₃, PM₁₀, and PM_{2.5} (PCAPCD, 2012).

In accordance with Federal Clean Air Act (CAA) requirements, the air quality in a given region or area is measured by the concentration of criteria pollutants in the atmosphere. The air quality in a region is a result of not only the types and quantities of atmospheric pollutants and pollutant sources in an area, but also surface topography, the size of the topological "air basin," and the prevailing meteorological conditions.

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Under the CAA, the USEPA developed numerical concentration-based standards, or National Ambient Air Quality Standards (NAAQS), for pollutants that have been determined to affect human health and the environment. The NAAQS represent the maximum allowable concentrations for O₃ - measured as either volatile organic compounds (VOCs) or total oxides of nitrogen (NO_x), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur oxides (SO_x), respirable particulate matter (including PM₁₀ and PM_{2.5}), and lead (Pb) (40 Code of Federal Regulations [CFR] Part 50). The CAA also gives the authority to states to establish air quality rules and regulations. The State of California has adopted the NAAQS and promulgated additional California Ambient Air Quality Standards (CAAQS) for criteria pollutants. The CAAQS are more stringent than the Federal primary standards. Table 3-1 presents the USEPA NAAQS and CAAQS.

USEPA classifies the air quality in an Air Quality Control Region (AQCR), or in subareas of an AQCR, according to whether the concentrations of criteria pollutants in ambient air exceed the NAAQS. Areas within each AQCR are therefore designated as either “attainment,” “nonattainment,” “maintenance,” or “unclassified” for each of the six criteria pollutants. Attainment means that the air quality within an AQCR is better than the NAAQS; nonattainment indicates that criteria pollutant levels exceed NAAQS; maintenance indicates that an area was previously designated nonattainment but is now attainment; and an unclassified air quality designation by USEPA means that there is not enough information to appropriately classify an AQCR, so the area is considered attainment. USEPA has delegated the authority for ensuring compliance with the NAAQS to CARB. CARB has delegated responsibility for implementation of the CAA and California CAA to local air pollution control agencies. In accordance with the CAA, each state must develop a State Implementation Plan (SIP), which is a compilation of regulations, strategies, schedules, and enforcement actions designed to move the state into compliance with all NAAQS.

Table 3-1 National and State Ambient Air Quality Standards

Pollutant	Averaging Time	Standard Value		Federal Standard Type
		Federal	State	
CO	8-hour ^a	9 ppm (10 mg/m ³)	Same	Primary
	1-hour ^a	35 ppm (40 mg/m ³)	20 ppm (23 mg/m ³)	Primary
NO ₂	Annual Arithmetic Mean	0.053 ppm (100 µg/m ³)	0.030 ppm (57 µg/m ³)	Primary and Secondary
	1-hour	0.100 ppm	0.18 ppm (339 µg/m ³)	None
O ₃	8-hour ^b	0.075 ppm (147 µg/m ³)	0.070 ppm (137 µg/m ³)	Primary and Secondary
	1-hour ^c	--	0.09 ppm (180 µg/m ³)	Primary and Secondary
Pb	Quarterly average	1.5 µg/m ³	--	Primary and Secondary
	30-Day	--	1.5 µg/m ³	
PM ₁₀	Annual Arithmetic Mean	--	20 µg/m ³	
	24-hour	150 µg/m ³ ^d	50 µg/m ³	Primary and Secondary
PM _{2.5}	Annual Arithmetic Mean ^e	12 µg/m ³	12 µg/m ³	Primary and Secondary

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Pollutant	Averaging Time	Standard Value		Federal Standard Type
		Federal	State	
	24-hour	35 µg/m ³	Same	Primary and Secondary
SO ₂	Annual Arithmetic Mean	0.030 ppm	--	Primary
	24-hour ^a	0.14 ppm	0.04 ppm	Primary
	1-hour	0.075 ppm	0.25 ppm	None

Sources: **PCAPCD 2012**

Notes: Parenthetical values are approximate equivalent concentrations.

- Not to be exceeded more than once per year.
- To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. This standard is effective on May 27, 2008, and replaces the 1997 8-hour ozone standard of 0.08 ppm. However, the 1997 standard and its implementing rules remain in effect while USEPA undergoes rulemaking to transition to the 2008 standard.
- As of June 15, 2005, USEPA revoked the Federal 1-hour ozone standard in all areas except the 14 8-hour ozone nonattainment Early Action Compact Areas.
- Not to be exceeded more than once per year on average over 3 years.
- To attain this standard, the 3-year average of the weighted annual mean PM_{2.5} concentrations from single or multiple community-oriented monitors must not exceed 12.0 µg/m³.

Key: ppm = parts per million; mg/m³ = milligrams per cubic meter; µg/m³ = micrograms per cubic meter; km = kilometer

The current project-level thresholds of significance recommended by the PCAPCD related to the impacts of construction and operational emissions associated with a land use project are outlined below in Table 3-2.

Table 3-2 PCAPCD Recommended Project-Level Thresholds of Significance

	Thresholds of Significance (lbs per day)		
	ROG	NOx	PM10
Construction Emissions	82	82	82
Operational Emissions	82	82	82

Key: lbs = pounds; ROG = reactive organic gases

DISCUSSION OF IMPACTS

- Less-than-Significant Impact – As described in Chapter 2 Project Description, the proposed project anticipates a construction period of approximately four months for Phase I and an additional four months for future Phase 2. Estimated construction hours would be from 7:30 am to 4:00 pm, Monday through Friday. Emissions from construction activities associated with the proposed project would have short-term, minor impacts on local air quality and would have negligible impacts on regional air quality. Implementation of the proposed project is not anticipated to conflict with or obstruct implementation of the regions' air quality attainment plans, and impacts would be less-than-significant.

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- b-c) Less-than-Significant Impact - Construction of the proposed project would generate air pollutant emissions (i.e., dust generation) as a result of grading activities and operation of construction equipment. Fugitive dust emissions would be greatest during the initial site preparation activities and would vary from day to day depending on the construction phase, level of activity, and prevailing weather conditions.

Construction emissions for the proposed project were calculated based on the anticipated construction schedule and equipment to be used, and the number of estimated truck trips outlined in Chapter 2 Project Description. These project details were entered into the CalEEMod v.2013.2.2, a statewide land use emissions computer model used to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with construction and operations from a variety of land use projects and are shown in Table 3-3 below.

Table 3-3 Construction Emissions for the Proposed Project

	Construction Emissions (lbs per day)		
	ROG	NOx	PM10
Phase 1 Lower Weir	2.01	21.9	1.38
Phase 2 Upper Weir	2.44	26.75	1.57

Key: lbs = pounds; ROG = reactive organic gases

Construction activities for the proposed project would be temporary and short-term, and the increase in criteria pollutants would not exceed the PCAPCD thresholds of significance as shown in Table 3-2, above. Therefore, implementation of the proposed project is not expected to result in violations of any ambient air quality standards.

The proposed project does not include construction or operation of any emission generating sources that would result in, or contribute to, long term increases in emissions. However, construction activities associated with implementation of the proposed project are expected to contribute to a temporary increase in local levels of criteria pollutants. However, since the proposed project's contribution of criteria pollutants is expected to be less than the PCAPCD thresholds of significance, and the District would incorporate best management practices (BMPs) and environmental protection measures during construction and adhere to PCAPCD regulations, the proposed project is not anticipated to result in a cumulatively considerable net increase of any criteria air pollutants for which the PCAPCD is already designated as non-attainment. In addition, a Construction Emission/Dust Control Plan would be submitted to the PCAPCD prior to approval of grading plans, and shall include measures to reduce the proposed project's short-term construction impacts. Thus, impacts related to emissions of criteria air pollutants would be less-than-significant and no mitigation would be required.

- d) No Impact – Project construction activities, including site preparations and construction of the proposed weirs would result in short-term generation of diesel exhaust emissions from the use of off-road diesel equipment required for earthwork and other construction activities. Particulate exhaust emissions from diesel fueled engines were identified as a toxic air contaminant (TAC) by CARB in 1998. However, no residential properties are located

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within 0.50 miles of the proposed construction activities, resulting in no nearby sensitive receptors that would be potentially exposed to TAC during construction activities. Therefore, no impact would occur and no mitigation would be required.

- e) No Impact - Construction activities would generate emissions that may be considered an objectionable odor by some individuals. However, emissions associated with construction activities, such as diesel exhaust from the use of on-site construction equipment, would be intermittent and temporary, and would dissipate rapidly from the source with an increase in distance. Thus, implementation of the proposed project would not expose sensitive receptors to odorous emissions, and no long-term generation of emissions would result from implementation of the proposed project.

CONCLUSION

The proposed project would not result in significant or cumulative impacts to air quality in the region.

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3.4 BIOLOGICAL RESOURCES

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

ENVIRONMENTAL SETTING

Existing Conditions Summary

A project study area (study area) was defined for the purposes of documenting existing biological resources in the area and vicinity. The study area includes the area that would be directly impacted by construction of the proposed Phase 1 (Lower Weir), Phase 2 (Upper Weir), aquatic habitat restoration, oak woodland and riparian restoration areas, plus a buffer deemed to be of sufficient size to encompass any areas of potential indirect impacts. The study area also includes construction parking and access routes, staging areas, and borrow areas. The

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boundaries of the study area are shown on Figure 3-1, which includes habitat types in the study area. Project Impact areas were also defined and include all areas that are anticipated to be permanently or temporarily impacted by construction of the proposed project including the weir locations, staging areas, borrow areas, restoration areas, and construction access routes.

Habitat Types

The study area supports 11 distinct habitat types, which are shown on Figure 3-1. Detailed habitat descriptions are provided below. The descriptions of habitat types and species present are based on observations made during field surveys. Habitat nomenclature is generally derived from the *California Wildlife Habitat Relationships System* (CDFW 2013), and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1992). Vegetation and habitat classifications were derived from the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986).

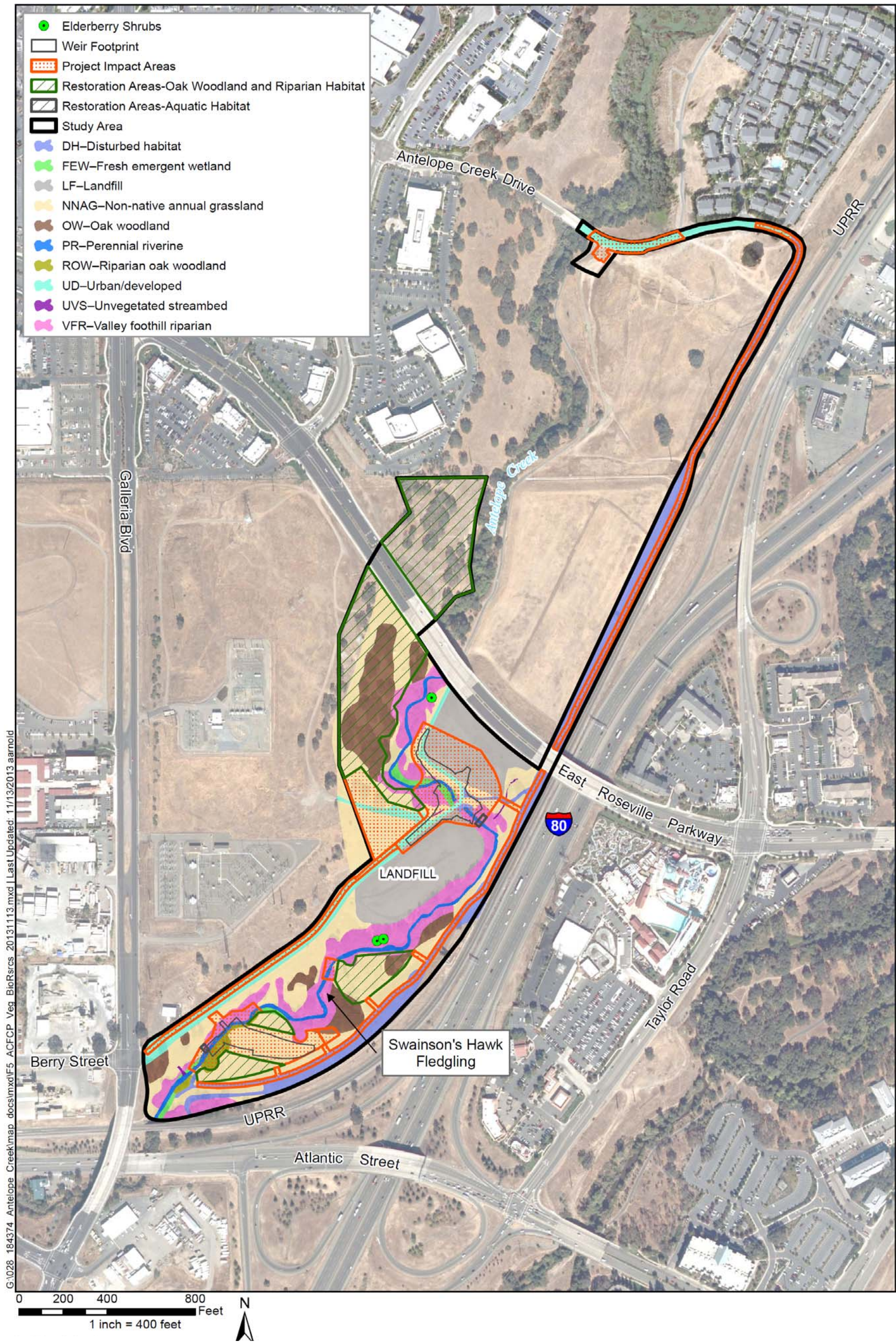
Terrestrial plant communities/habitat types within the study area include non-native annual grassland, disturbed habitat, landfill, oak woodland, riparian oak woodland, urban/developed, and valley foothill riparian. Aquatic communities/habitat types within the study area include arundo-dominated (*Arundo donax*) riparian, fresh emergent wetland, perennial riverine, and un-vegetated channel. Table 3-4 summarizes the acreages of habitat types in the study area and within the project impact areas, which is defined as all areas that could potentially be permanently or temporarily impacted by construction activities.

Table 3-4 Habitat Types (by Acre) Within the Study Area

Habitat Type	Acreage Within the Study Area	Acreage within project impact areas*	
		Temporary	Permanent
Terrestrial Habitats			
Non-native annual grassland	13.74	7.52	1.04
Disturbed habitat	6.02	2.29	0.06
Landfill	6.27	1.24	0.23
Oak woodland	4.11	2.97	0.00
Riparian oak woodland	0.36	0.18	0.11
Urban/developed	3.26	1.51	0.31
Valley foothill riparian	5.79	0.98	0.2
Aquatic Habitats			
Fresh emergent wetland	0.38	0.1	0.08
Perennial riverine	1.20	0.17	0.15
Unvegetated channel	0.05	<0.00	0.01
Total	41.18	17.00	2.19

*Includes all areas that are anticipated to be permanently or temporarily impacted by construction of the proposed project (Phase 1 and Phase 2) including staging areas, borrow areas, restoration areas, and access routes.

Figure 3-1 Habitat Types in the Project Study Area



Terrestrial Habitats

Non-Native Annual Grassland

Non-native annual grassland (NNAG) habitats are open grasslands composed primarily of annual plant species. Many of these species also occur as understory plants in Valley Oak Woodland and other habitats. Introduced annual grasses are the dominant plant species in this habitat. These include wild oat (*Avena* spp.), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), wild barley (*Hordeum* sp.), and fescue (*Festuca* spp.). Common forbs include broadleaf filaree (*Erodium botrys*), redstem filaree (*Erodium cicutarium*), turkey mullein (*Croton setigerus*), true clovers (*Castilleja* spp.), bur clover (*Medicago polymorpha*), popcorn flower (*Cryptantha* spp.), and many others.

Within the study area NNAG occurs east of Antelope Creek from Antelope Creek Drive to south of East Roseville Parkway, on the landfill hill south of East Roseville Parkway, and the area east of Antelope Creek between the landfill and the southern project limits. These areas have been cleared and graded or otherwise disturbed, and have colonized with native and non-native annual species including wild oats (*Avena fatua*), soft chess, crab grass (*Digitaria* sp.), hawkweed (*Hieracium* sp.), and black mustard (*Brassica nigra*).

Disturbed Habitat

Disturbed habitat is primarily used to identify areas of severe impacts to natural communities to the extent where it is no longer sustaining or functioning naturally. These areas have been previously physically disturbed, but continue to retain a soil substrate. Disturbed areas consist of predominantly non-native weedy and ruderal exotic species. This is not a natural community and generally does not provide habitat for wildlife or sensitive species.

Within the study area, disturbed habitat occurs within the railroad right-of-way (primarily on the track slopes) and adjacent to and within dirt access roads.

Landfill

A closed landfill occurs within the study area. The landfill is vegetated by NNAG and is routinely mowed.

Oak Woodland

Oak woodlands in the Central Valley form savannah to forest-like stands dominated by Valley oak (*Quercus lobata*), blue oak (*Quercus douglassii*), and interior live oak (*Quercus wislizeni*). The woodlands are typically densest near natural drainages and decrease in density as they transition into drier upland areas. The understory may comprise of shrubs near drainages in relatively undisturbed woodlands, which typically transitions to grassland in the upland areas.

The study area features remnant/disturbed oak woodlands for nearly the extent of the floodplain. The tree density is relatively low – either by natural selection or management for other land uses – and the understory is primarily grasses and annual forbs typical of disturbed environments. The remnant oak woodlands are characterized by a composition of Valley oak, blue oak and interior live oak.

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Riparian Oak Woodland

Riparian oak woodland is similar to oak woodland described above, except that the community is composed primarily of Valley oak (which is more tolerant of mesic soil conditions) with driplines overlapping the streambed and banks. Within the study area, riparian oak woodland occurs in small patches along the creek banks.

Urban/Developed

Urban/developed land is comprised of areas of intensive use with much of the land constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is highly modified and characterized by permanent or semi-permanent structures, pavement, unvegetated areas and landscaped areas that require irrigation.

Within the study area, urban/developed land occurs primarily as the paved bike path running adjacent to Antelope Creek and as a stormwater outfall structure located in the westernmost portion of the study area.

Valley Foothill Riparian

Valley foothill riparian habitat is typically characterized by tiered canopy layers, with species including cottonwood (*Populus fremontii*), valley oak, box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). Common understory shrub layer species include blackberry (*Rubus* sp.), blue elderberry (*Sambucus nigra*), buttonbush (*Cephalanthus occidentalis*), and willows. Herbaceous species may include sedges, nettles, and grasses.

Valley foothill riparian is common along the banks of Antelope Creek and immediately adjacent floodplains throughout the study area. The extent of the riparian vegetation associated with this habitat type is limited by adjacent land uses (i.e., landfill, railroad tracks, residential development, and the bike path) and topography. Valley oak is the dominant species comprising the riparian habitat overstory. Poison oak (*Toxicodendron diversilobum*), blackberry, buttonbush, and narrow leaf willow (*Salix exigua*) are common understory shrubs. The herbaceous layer features various grasses and sedges.

Aquatic Habitats

Fresh Emergent Wetland

Fresh emergent wetlands are characterized by erect, rooted herbaceous hydrophytes. Dominant vegetation is generally perennial monocots to 2 meters (M, 6.6 feet [ft]) tall (Cheatham and Haller 1975, Cowardin et al. 1992). All emergent wetlands are flooded frequently, enough so that the roots of the vegetation prosper in an anaerobic environment (Gosselink and Turner 1978). The vegetation may vary in size from small clumps to vast areas covering several kilometers.

Fresh emergent wetland habitats may occur in association with terrestrial habitats or aquatic habitats including Riverine, Lacustrine and Wet Meadows. The upland limit of fresh emergent wetlands is the boundary between land with predominantly hydrophytic cover and land with primarily mesophytic or xerophytic cover or the boundary between hydric and non hydric soils (Cowardin et al. 1992). The boundary between fresh emergent wetlands and deep water habitats (e.g., Lacustrine or Riverine) is the deep water edge of the emergent vegetation. It is generally accepted that this demarcation is at or above the 2 m depth (Cowardin et al. 1992, Zoltai et al. 1975). The 2 m lower limit

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for emergent wetlands was selected because it represents the maximum depth to which emergent plants normally grow (Welch 1952, Sculthorpe 1967).

Within the study area, fresh emergent wetlands occur as small patches along the banks of Antelope Creek and are dominated by herbaceous wetland species, such as cattails (*Typha* sp.), bulrush (*Schoenoplectus* sp.), American wild mint (*Mentha arvensis*), and tall flatsedge (*Cyperus eragrostis*).

Perennial Riverine

Antelope Creek is a lower perennial riverine habitat characterized by intermittently occurring stretches with steep, cut banks, and stretches with low banks transitioning into adjacent wetlands. The creek features silty and sandy bottom with natural (untreated) banks.

Within the study area, perennial riverine habitat occurs as the unvegetated (i.e., open water) portions of Antelope Creek.

Unvegetated Streambed

Within the study area, unvegetated streambed occurs primarily as shallow upland drainages located in the floodplain. The drainages are dominated by non-native grass species. No wetland or riparian plant species are associated with this community.

Wildlife Movement Corridors

Antelope Creek and adjacent disturbed non-native annual grassland and oak woodland provide a movement corridor for areas between the creek and Miners Ravine east of I-80. The area is considered marginal quality for a movement corridor because it is surrounded by development and supports several pinch points at the Antelope Creek Drive, East Roseville Parkway, UPRR railroad and Atlantic Street crossings. In addition, the culvert under the bike path and large chain link fence running adjacent to the bike path and landfill areas near the Upper Weir location may impede wildlife movement through the riparian corridor. The current culverts within the creek impede fish passage. Pedestrian traffic is high throughout the riparian corridor and floodplain located within the study area. Pedestrian traffic includes recreational users of the bike path, archers, transients, flood control and public utility personnel. The MAYA Archers of Roseville, inc. is a National Field Archery Association club that has an archery course through the project study area. The archery course is frequently used and therefore, wildlife movement through the corridor has likely adjusted to this use or has already moved out of the corridor due to human presence.

Therefore, wildlife is expected to use these areas to travel during the night in order to avoid contact with humans in the adjacent populated areas. Construction of the proposed project would temporarily interfere with wildlife movement during the daytime hours, but wildlife would be free to move through the project area at night. Once construction is complete, wildlife movement in the area is expected to return to pre-project conditions. Implementation of the proposed project would not remove, degrade or otherwise interfere substantially with the structure or function of this marginal wildlife movement corridor.

Sensitive Biological Resources

Sensitive biological resources addressed below are those that are afforded special protection through federal, state, and/or local laws and ordinances due to a variety of factors (summarized in the regulatory setting section). Plant and animal species are typically considered "sensitive" if they are determined to be rare or have a limited geographic range by

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the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), CDFW or other local agencies. Vegetation communities (habitats) are generally considered “sensitive” if: (a) they are considered rare within the region by various agencies including USFWS, CDFW, and other local agencies; (b) if they are known to support sensitive animal or plant species; and/or (c) they are known to serve as important wildlife corridors. Sensitive habitats are typically depleted throughout their known ranges, or are highly localized and/or fragmented.

Existing site conditions were compiled from data gathered from various biological surveys conducted within the study area. Surveys for Waters of the U.S./wetlands, sensitive habitats and natural communities, native oak trees, and Valley elderberry longhorn beetles were conducted in 2012 and 2013.

Sensitive Habitats

Habitats with a State (S) rank of 1-3 are considered sensitive by CDFW. The study area supports one sensitive habitat, valley foothill riparian, which has a similar composition to the S3-ranked *Quercus lobata* (Valley oak woodland) Alliance. Within the study area, valley oak is the dominant species comprising the valley foothill riparian habitat overstory. Poison oak (*Toxicodendron diversilobum*), blackberry (*Rubus sp.*), buttonbush (*Cephalanthus occidentalis*), and narrow leaf willow (*Salix exigua*) are common understory shrubs. The herbaceous layer features various grasses and sedges.

Special-Status Plant Species

Special-status plant species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-5. No special-status plants were observed during 2012 and 2013 general biological and jurisdictional wetland delineation surveys.

Table 3-5 Special-status Plant Species in the Study Area

Scientific name/ common name	Federal/State/ CNPS Status*	Habitat description	Observed	Rationale for Potential to Occur
Plants				
<i>Balsamorhiza macrolepis</i> Big-scale balsamroot	--/--/1B.2	Open, grassy or rocky slopes in chaparral, cismontane woodland, and valley and foothill grassland; sometimes associated with serpentine soils. Elevation range: 90 to 1,555 meters amsl Blooming period: March to June	No	Grasslands provide potential habitat.
<i>Juncus leiostermus</i> var. <i>ahartii</i> Ahart's dwarf rush	--/--/1B.2	Valley and foothill grassland with mesic soils. Elevation range: 30 to 229 meters amsl Blooming period: March to May	No	Grassland provides potential habitat.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	--/--/1B.2	Assorted, shallow, freshwater, marshes and swamps. Currently known to occur in Butte, Del Norte, Fresno, Merced, Mariposa, Orange, Placer, Sacramento, Shasta, San	No	Antelope Creek and adjacent wetlands supporting shallow water with emergent vegetation provide potential habitat. Not observed during site

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Scientific name/ common name	Federal/State/ CNPS Status*	Habitat description	Observed	Rationale for Potential to Occur
		Joaquin, Tehama, and Ventura counties. Elevation range: 0 to 650 meters amsl Blooming period: May to October		visits in 2012 and 2013.

amsl = above mean sea level

Species lists obtained for Roseville, Citrus Heights, Rio Linda, Gold Hill, Rocklin, Folsom, Lincoln, Sheridan and Pleasant Grove quadrangles from the following sources:

California Department of Fish and Game California Natural Diversity Database RareFind 4 online database accessed July 23, 2013 at <<http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>>.

California Native Plant Society Inventory of Rare and Endangered Plants (online edition, v7-07c) accessed July 23, 2013 at <<http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Home>>.

U.S. Fish and Wildlife Service list of Federal Endangered and Threatened Species accessed online on July 23, 2013 at <<http://www.fws.gov/endangered/species/us-species.html>>.

CNPS – California Native Plant Society (see definitions of CNPS rankings below); other – see definitions of other rankings below.

CNPS ratings:

1B = Rare, threatened, or endangered in California and elsewhere

1B.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

1B.2 = Fairly endangered in California (20-80% occurrences threatened)

2 = Rare, threatened, or endangered in California but more common elsewhere.

2.2 = Fairly endangered in California (20-80% occurrences threatened)

Special-Status Wildlife Species

Special-status wildlife species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-6. Two sensitive species, western pond turtle (*Emys marmorata*) and Swainson's hawk (*Buteo swainsoni*), were observed within the study area during 2012 surveys.

Table 3-6 Special-status Wildlife Species in the Study Area

Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
Invertebrates				
<i>Desmocerus californicus dimorphus</i> Valley elderberry longhorn beetle	FT--/--	Endemic to elderberry shrubs (<i>Sambucus</i> spp.) occurring in riparian habitat in the Sacramento and San Joaquin Valleys, riparian habitats in the Sacramento and San Joaquin Valleys, and less commonly throughout riparian forests of the Central Valley from Redding to Bakersfield (USFWS 1984).	No	Elderberry shrubs in riparian habitat provide potential habitat.**
Fish				
<i>Oncorhynchus mykiss</i> Central Valley steelhead	FT /--/--	Rivers and streams with cool, clear water and suitable substrate are used for spawning. The Central Valley distinct population includes all naturally spawned anadromous <i>O. mykiss</i> (steelhead) populations below natural and manmade impassable	No	Species has been observed in the watershed.

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
		barriers in the Sacramento and San Joaquin Rivers and their tributaries, excluding steelhead from San Francisco and San Pablo Bays and their tributaries, as well as two artificial propagation programs: the Coleman National Fish Hatchery, and Feather River Hatchery steelhead hatchery programs (NMFS 2006). Critical habitat for this species occurs approximately 0.4 mile downstream on Dry Creek.		
<i>Oncorhynchus tshawytscha</i> Central Valley fall/late-fall run Chinook salmon	--/SSC/--	Chinook salmon spawn in rivers and streams with cool, clear, water and suitable substrate. The ESU includes all naturally spawned populations of fall-run Chinook salmon in the Sacramento and San Joaquin River Basins and their tributaries, east of Carquinez Strait, California.	No	Although the potential is low within the Dry Creek Watershed (NMFS 2009), species has been observed in local tributaries. The upstream limit reported to be just upstream of highway 65 (Nelson 1998 as cited in NMFS website 2013) Access to the creek flow and early rain dependent. Accounted for ~10% available habitat up Dry Creek tributaries.
Amphibians				
<i>Spea hammondi</i> western spadefoot	--/SSC/--	This species occurs primarily in grasslands, but occasional populations also occur in valley-foothill hardwood woodlands. The species ranges throughout the Central Valley and adjacent foothills. In the Coast Ranges it is found from Point Conception, Santa Barbara County, south to the Mexican border (CWHS 2000).	No	No breeding habitat, however the site provides potential estivation habitat. 1994 CNDDB occurrence within 100 feet of the study area. Presumed extant.
Reptiles				
<i>Emys marmorata</i> Western pond turtle	--/SSC/--	Permanent and intermittent waters of rivers, creeks, small lakes and ponds (including human-made stock ponds and sewage-treatment ponds, marshes, unlined irrigation canals, and reservoirs. Substantial populations can exist in water bodies in urban areas. Sometimes the species is found in brackish water (NatureServe 2013). Found at elevations from sea level to over 5,900 ft (1,800 m).	Yes	Observed within the study area.
Birds				
<i>Ammodramus savannarum</i> grasshopper sparrow	--/SSC/--	Grasslands with scattered bare ground and clumped vegetation. Prefers areas with scrubby woody vegetation and moderate leaf litter (NatureServe 2013). Summer resident from Mendocino, Trinity, and Tehama counties south, west of the Cascade-Sierra Nevada axis and southeastern deserts, to San Diego County, from sea level to 4900 ft (1494 m), as in the San Jacinto Mountains (Shuford 2008).	No	Disturbed annual grassland provides potential breeding habitat. This species is considered sensitive only when nesting.
<i>Athene cunicularia</i> Burrowing owl	--/SSC/--	Open, dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. This species nests underground in existing burrows, either artificial (e.g. drainage	No	Vacant lots with low growing vegetation provide suitable breeding habitat.

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
		pipes), or created by burrowing mammals, most often ground squirrels. Occurs throughout much of northeastern, central and southern California as a permanent or breeding resident.		
<i>Buteo swainsoni</i> Swainson's hawk	--/ST/--	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Nests on large trees in open areas. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen Co., and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley (CWHRS 2006).	Yes	A fledgling Swainson's hawk and one adult were observed within the southern portion of the study area during 2012 surveys. Nest was not located.
<i>Coccyzus americanus occidentalis</i> Western yellow-billed cuckoo	FC/SE/--	Generally riparian woodland comprised of willows and cottonwoods. Dense riparian understory is important to nesting site selection (NatureServe 2013).	No	Valley foothill riparian provides suitable nesting and foraging habitat
<i>Elanus leucurus</i> White-tailed kite	--/FP/--	Grasslands or meadows in rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes near deciduous woodlands with isolated, dense-topped trees for nesting and perching. The species occurs throughout much of central and southern California, primarily west of the Sierras (NatureServe 2013).	No	Oaks and grassland provide potential breeding habitat. This species is considered sensitive only when nesting.
<i>Progne subis</i> Purple martin	--/SSC/--	A variety of open and relatively open habitats near water or towns. Habitats like grassland, shrubland, woodland and desert. Nests in rock crevices and tree cavities (NatureServe 2013). Purple Martins are widely but locally distributed in forest and woodland areas at low to intermediate elevations throughout much of the state (Shuford 2008).	No	Disturbed annual grassland, oak woodland and nearby development provides suitable breeding habitat. This species is considered sensitive only when nesting. 2007 CNDDB occurrence within 1000 feet of the study area. Presumed extant.
Mammals				
<i>Antrozous pallidus</i> Pallid bat	--/SSC/--	Woodlands, cliff, desert, grasslands, usually near rocky outcrops and water. Less likely to be found in evergreen and mixed conifer woodlands. Usually roosts in building or rock crevices but may also roost in the bole cavities of oaks, exfoliating valley oak bark and deciduous trees in riparian areas (NatureServe 2013; WBWG 2005). In California, the species occurs throughout the state in a variety of habitats including low desert, oak woodland and coastal redwood forests, extending up to 3,000 m elevation in the Sierra Nevada (Bolster, B.C. 1998).	No	Oak woodland and disturbed annual grasslands provide potential roosting and foraging habitat.
<i>Corynorhinus townsendii</i> Townsend's big-	--/SSC/--	Woodlands, cliff, desert, grasslands, regularly occurring in forested regions and buildings. Bats hang from ceiling in near total darkness (NatureServe 2013).	No	Oak woodland and disturbed annual grasslands provide potential foraging habitat. No potential roosting habitat onsite

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Scientific name/ common name	Federal/ State	Habitat description	Observed	Rationale for Potential to Occur
earred bat		In California, the species is found throughout most of the state, with populations concentrated in areas offering caves (commonly limestone or basaltic lava) or mines as roosting habitat. The species is found from sea level along the coast to 1,820 m in the Sierra Nevada (Bolster 1998).		

NMFS = National Marine Fisheries Service; ESU = evolutionary significant unit

Species lists obtained for Roseville, Citrus Heights, Rio Linda, Gold Hill, Rocklin, Folsom, Lincoln, Sheridan and Pleasant Grove quadrangles from the following sources:
California Department of Fish and Game California Natural Diversity Database RareFind 4 online database accessed July 23, 2013 at <<http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>>.

California Native Plant Society Inventory of Rare and Endangered Plants (online edition, v7-07c) accessed July 23, 2013 at <<http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Home>>.

U.S. Fish and Wildlife Service list of Federal Endangered and Threatened Species accessed online on July 23, 2013 at <<http://www.fws.gov/endangered/species/us-species.html>>.

*FE – federally endangered; FT – federally threatened; FC – federally candidate; FD – federally delisted; CH – critical habitat; SE – state endangered; ST – state threatened; SSC – state species of special concern.

**The species is evaluated in detail; federally listed non-fish species are evaluated in detail in the body of the U.S. Fish and Wildlife Service Biological Assessment; federally listed fish species are evaluated in detail in the body of the National Marine Fisheries Service Biological Assessment.

Other ratings:

- G1 to G5 = global rank that reflects the overall condition of an element throughout its global range; G5 is considered secure, and G1 is the highest risk of extinction.
- S1 to S5 = state rank that reflects the overall condition of an element in California with sub-designations (e.g. S1.1) reflecting the threat to the species (applies to S1 to S3 rankings); S5 is considered secure with no threat, and S1.1 is the highest level of vulnerability and very threatened.

Waters of the U.S., Including Wetlands, and Waters of the State

Antelope Creek is a perennial, slightly entrenched single-channel creek. Within the study area, the creek flows north to south with a floodplain that is relatively confined by adjacent land uses such as a landfill, bike path, and residential and commercial developments. The creek is culverted under the bike path near the Phase 2 (Upper Weir) project area and the banks surrounding the culverts are reinforced with rock riprap both upstream and downstream.

A U.S. Army Corps of Engineers (USACE) jurisdictional delineation was conducted within the study area to identify potential Waters of the U.S., including wetlands. Potentially jurisdictional wetlands and other Waters of the U.S. were identified within the study area. USACE wetlands occur primarily as fresh emergent marsh located in small pockets along the creek banks. USACE other Waters of the U.S. occur primarily as the open water channel within Antelope Creek, which was mapped to the ordinary high water mark. Three ephemeral tributaries to Antelope Creek occur within the floodplain and are considered potential other Waters of the U.S. All USACE potentially jurisdictional wetlands and other Waters of the U.S. are also subject to jurisdiction as Regional Water Quality Control Board (RWQCB) waters of the State. Approximately 0.38 acres of potentially jurisdictional USACE wetlands and 1.25 acres of other Waters of the U.S. occur within the study area (Table 3-7).

All USACE/RWQCB jurisdictional drainages in the study area are considered jurisdictional by the CDFW. CDFW jurisdiction is similar to that of USACE jurisdiction, but also extends to the top of the bank and encompasses riparian vegetation when present. CDFW jurisdictional areas are defined as either "Riparian" or "Unvegetated Streambed." CDFW riparian include all areas

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within the study area that are associated with the Antelope Creek streambed and banks (USACE other Waters of the U.S. and wetlands) that are vegetated by riparian species. CDFW riparian extends further out from the Creek than USACE jurisdiction because it also encompasses the associated riparian habitat which may fall outside of the ordinary high water mark and/or three-parameter wetland criteria. CDFW unvegetated streambed includes the unvegetated portions of the Creek (e.g., open water) and Tributaries A – C.

Two potentially CDFW riparian depressional features, believed to not be USACE jurisdictional Waters of the U.S. area located at the southwestern portion of the study area along the north side of the railroad tracks. The features are dominated by willows (*Salix* spp.) and oaks (*Quercus* spp.) and collect sheet flow from the railroad right-of-way and adjacent lands. No ordinary high water mark was observed connecting the depressional areas to the Creek and the features did not meet USACE criteria for hydrophytic vegetation. Approximately 6.53 acres of CDFW riparian and 0.05 acres of CDFW unvegetated streambed occurs within the study area (Table 3-7). All mapped aquatic features in the study area are shown on the habitat map (Figure 3-1).

**Table 3-7 Summary of USACE/CDFW
Existing and Impacted Jurisdictional Areas Within the Project Study Area**

Jurisdiction	Acres within the Project Study Area*	Temporary Impacts (Acres)	Permanent Impacts (Acres)
USACE Wetlands	0.38	0.01	0.08
USACE Other Waters of the U.S.	1.25	0.17	0.16
Total USACE Jurisdictional Areas	1.63	0.18	0.24
CDFW Riparian	6.53	1.26	0.39
CDFW Unvegetated Streambed	0.05	<0.00	0.01
Total CDFW Jurisdictional Areas	6.58	1.26	0.40

*Acreages are estimates of potentially jurisdictional areas mapped in the field. Jurisdictional boundaries have not been verified by USACE or CDFW.

DISCUSSION OF IMPACTS

- a) Potentially Significant Impact Unless Mitigation Incorporated - The proposed project would have potential impacts on the following species and/or their habitat: valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), Central valley steelhead (*Oncorhynchus mykiss*), Central Valley fall/late-fall run Chinook salmon (*Oncorhynchus tshawytscha*), western spadefoot (*Spea hammondi*), Western pond turtle, burrowing owl (*Athene cunicularia*), Swainson's hawk, northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), purple martin (*Progne subis*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendi*), and other raptors and migratory birds. The following is a description of the proposed project's effects on these species and/or their habitat.

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Federally and/or State-listed Threatened, Endangered or Candidate Species

Valley Elderberry Longhorn Beetle

Six elderberry shrubs with at least one stem greater than one inch in diameter at ground level were observed within 100-feet of the proposed borrow site. Three of the six elderberry shrubs contained multiple stems. Although no exit holes were observed on the elderberry shrubs within the study area and the location of the shrubs makes them marginal to poor habitat for the beetle, these shrubs could be utilized by the Valley elderberry longhorn beetle (VELB) due to their proximity to known sightings. These shrubs occur on the opposite creek bank (west bank) from the borrow area and would not be directly impacted by construction of the proposed project (Figure 3-1). An additional single-stem elderberry shrub is located within the study area approximately 120 feet upstream from the Phase 2 (Upper Weir) location and 15 feet west of the existing bike path (Figure 3-1). Elderberry shrubs would not be directly impacted by implementation of the proposed project.

Indirect impacts to VELB could occur as a result of construction related disturbances in the vicinity of the shrubs. Inadvertent impacts to VELB could occur if construction equipment accidentally impacts the shrubs. Due to the elderberry shrubs being located on the opposite creek bank from the proposed borrow site, soil compaction or an increase/decrease in runoff reaching the root zone of the shrubs is not anticipated. The potential adverse impacts to the elderberry shrubs from inadvertent destruction could be significant prior to implementing mitigation. Implementation of **Mitigation Measure 1** below would reduce any potential indirect impacts to VELB and VELB habitat to a less-than-significant level.

Central valley steelhead (*Oncorhynchus mykiss*) and Central Valley fall/late-fall run Chinook salmon (*O. tshawytscha*)

Construction related effects on fish and fisheries habitat could potentially occur while construction activities and equipment are active. Construction-related increases in sediments and turbidity and the release and exposure of contaminants (e.g., fuels, lubricants) could adversely affect aquatic habitats and fish species immediately adjacent to and downstream of the project area. Increases in turbidity and sediment can harm fish respiration, feeding, and ability to perform other critical basic biological activities. Further, contamination of the creek with construction-related chemicals could impair or even kill aquatic species. Fish population levels and survival have been linked to levels of turbidity and siltation in a watershed. Prolonged exposure to high levels of suspended sediment could create a loss of visual capability in fish, leading to a reduction in feeding and growth rates; a thickening of the gill epithelia, potentially causing the loss of respiratory function; clogging and abrasion of gill filaments; and increases in stress levels, reducing the tolerance of fish to disease and toxicants (Waters 1995).

Also, high levels of suspended sediments would cause the movement and redistribution of fish populations and could affect physical habitat. Once suspended sediment is deposited, it could reduce water depths in pools, decreasing the water's physical carrying capacity for juvenile and adult fish (Waters 1995). Increased sediment loading could degrade food-producing habitat downstream of the project area as well. Sediment loading could interfere with photosynthesis of aquatic flora and displace aquatic fauna. Many fish are sight feeders, and turbid waters reduce the ability of these fish to locate and feed on prey. Some fish, particularly juveniles, could become disoriented and leave areas where their main food sources are located, ultimately reducing their growth rates.

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In addition, the potential exists for contaminants such as fuels, oils, and other petroleum products used during construction activities to be introduced into the water system directly or through surface runoff. Contaminants may be toxic to fish or may alter oxygen diffusion rates and cause acute and chronic toxicity to aquatic organisms, thereby reducing growth and survival.

It is anticipated that these potential effects associated with construction of the proposed project would be only temporary in duration and would not result in adverse effects to listed species.

Both weirs are designed to maintain a natural channel slope for fish passage. Therefore no impacts to migration or local fish movement are anticipated. As a result of the proposed project, fish passage would be improved at the Upper Weir location since old, raised culverts that are currently a barrier to fish passage would be removed.

Negligible effects are expected where habitats are not significantly altered (USACE 2004). In general, disruption of the benthic and near-bottom waters and disruption of sensitive habitats and key migratory corridors are of greatest concern (USACE 2004). Clearing, grubbing, and grading associated with project construction would permanently remove 0.31 acres of riparian/ shaded riverine aquatic (SRA) habitat (0.2 acres of valley foothill riparian and 0.11 acres of riparian oak woodland) and approximately 0.15 acres of creek habitat. In addition, project construction (primarily borrow area excavation and aquatic/riparian restoration areas) would temporarily impact 1.16 acres of SRA habitat (0.98 acres of Valley foothill riparian and 0.18 acres of riparian oak woodland).

Removal of riparian vegetation could result in the loss of SRA habitat that is important to fish, including special-status species in Antelope Creek. Riparian habitat provides structure (through SRA habitat) and food for fish species. Shade decreases water temperatures and low overhanging branches can provide sources of food by attracting terrestrial insects. As riparian areas mature, the vegetation sloughs off into the rivers, creating structurally complex habitat consisting of large woody debris that furnishes refugia from predators, creates higher water velocities, and provides habitat for aquatic invertebrates. For these reasons, many fish species are attracted to SRA habitat. The loss of SRA would be considered significant prior to mitigation.

In-stream aquatic and riparian habitat restoration in the creek is a component of the proposed project (see Figure 2-6). Aquatic habitat restoration components include both channel grading for enhanced natural-channel morphology and construction of in-stream boulder weirs. The in-stream boulder weirs would increase channel complexity and hydraulic diversity and enhance spawning and rearing habitat for migratory salmonids. Restoration of habitat along and within Antelope Creek would have a beneficial long-term impact on aquatic habitat and fisheries. Implementation of **Mitigation Measure 2** would reduce potential impacts to Central Valley steelhead and Central Valley fall/late-fall run Chinook salmon to a less-than-significant level.

Swainson's Hawk

A fledgling Swainson's hawk and one adult (assumed to be a parent) were observed within the study area in 2012 during surveys. The fledgling was observed on the ground and the adult in a nearby tree. No nest was identified. The proposed project is not expected to remove any known nest trees utilized by Swainson's hawk and/or other raptors. However, the project may remove trees that could potentially be utilized by Swainson's hawk for

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nesting. Removal of a tree/structure occupied by an active Swainson's hawk nest would be a direct impact and is considered significant under CEQA. Implementation of **Mitigation Measures 3 and 4** would reduce impacts to Swainson's hawk to a less-than-significant-level.

Construction activities, including localized increases in ambient noise levels could result in the disturbance of nesting Swainson's hawks or other migratory birds if these activities occur during the breeding season (generally between February 15 and August 30) and nests are present in or adjacent to the construction area. These disturbances could cause nest abandonment and/or death of young or loss of reproductive potential at active nests located on or near the project site. Because Swainson's hawk is a state-listed species and is protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF) Section 3503.5, related nesting impacts are potentially significant. With the implementation of **Mitigation Measures 3 and 4** the project is not expected to result in take of Swainson's hawks or any other raptors and migratory birds through nest disturbance of individuals potentially nesting in or adjacent to the study area.

Temporary impacts to potential foraging habitat are not expected to adversely affect Swainson's hawk or other raptors because foraging habitat is abundant elsewhere in the vicinity of the project. Implementation of **Mitigation Measure 5** would reduce potential impacts to Swainson's hawk to a less-than-significant level.

Migratory Bird Treaty Act Covered Species

Potential nesting habitat for MBTA-covered species exists within the study area. These species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to these species would be considered significant prior to mitigation.

Should migratory bird species begin nesting in the study area prior to the commencement of construction, project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Implementation of **Mitigation Measure 4** would reduce potential impacts to migratory birds to a less-than-significant level.

Western Burrowing Owl

No burrowing owl burrows were observed within the study area during general 2012 and 2013 surveys. Although no active or potential burrows were observed, potential nesting and foraging habitat for burrowing owl exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant without mitigation being incorporated.

Project related disturbances could potentially result in "take" of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, which provides potential nesting and foraging habitat for burrowing owl. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4 and 6** would reduce potential impacts to burrowing owl to a less-than-significant level.

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White-tailed Kite

No white-tailed kite nests were observed within the study area during general 2012 and 2013 surveys. Although no nests were observed, potential nesting habitat for white-tailed kite exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant prior to mitigation.

Project related disturbances could potentially result in “take” of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, valley foothill riparian, oak woodland and mature trees that provide potential nesting and foraging habitat for white-tailed kite. However, impacted riparian and oak woodland habitat would be mitigated through implementation of **Mitigation Measure 7**. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4** would reduce potential impacts to white-tailed kite to a less-than-significant level.

Purple Martin

No purple martin nests were observed within the study area during general 2012 and 2013 surveys. A CNDDDB search of the study area and vicinity identified an occurrence of the species in 1994, approximately 1,000 feet northeast of the study area at the overpass of HWY 65 and the railroad tracks. The CNDDDB presumes the species is extant in this area. Although no nests were observed, potential nesting habitat for purple martin exists within the study area. This species could begin nesting in or adjacent to the study area prior to the commencement of construction activities. Impacts to this species would be considered significant prior to mitigation.

Project related disturbances could potentially result in “take” of individuals through nest abandonment of eggs or juveniles by adult birds or forced fledging of juveniles. Construction of the proposed project would also result in the temporary and permanent loss of NNAG, valley foothill riparian, oak woodland and mature trees that provide potential nesting and foraging habitat for purple martin. However, impacts to riparian and oak woodland habitat would be mitigated through implementation of **Mitigation Measure 7**. Non-native grassland would be reseeded and re-established in all areas that are temporarily impacted. Implementation of **Mitigation Measure 4** would reduce potential impacts to purple martin to a less-than-significant level.

Western Spadefoot Toad and Western Pond Turtle

Implementation of the proposed project may result in direct and indirect impacts to western pond turtle (observed) and western spadefoot toad, if present. Direct impacts, such as injury or death, to these species could occur from construction equipment and other construction-related activities. Indirect impacts, such as loss of habitat, may also occur during construction activities such as de-watering, ground disturbance, and tree/vegetation removal. Direct and indirect impacts to these species would be considered significant unless mitigated. Implementation of **Mitigation Measure 8** would reduce impacts to less-than-significant.

Special-Status Bats

The project temporarily disturbs potential foraging and short-term roosting habitat for pallid bat and potential foraging habitat for Townsend's long-eared bat. The temporary duration and small size of the proposed disturbance relative to the available habitat for these wide-

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ranging species makes the temporary disturbance of potentially suitable habitat less-than-significant.

- b) Potentially Significant Impact Unless Mitigation Incorporated - Valley foothill riparian, a CDFW S3-ranked sensitive habitat, occurs throughout the study area and within the project impact areas. Direct permanent impacts (clearing and grubbing) to valley foothill riparian are unavoidable given the nature of the proposed project. Temporary indirect impacts such as sedimentation, dust, and soil erosion may occur to sensitive habitat located adjacent to construction activities. Impacts to riparian habitat (valley foothill riparian and riparian oak woodland) or other sensitive natural communities are considered significant until mitigated. Implementation of **Mitigation Measures 2** and **5** would reduce impacts to riparian and other sensitive natural communities to a less-than-significant level.

SRA is considered by CDFW and NMFS as sensitive habitat for fish species as it provides structure and food. As discussed above, project construction (primarily borrow area excavation and aquatic/riparian restoration areas) would permanently impact 0.31 acres and temporarily impact 1.16 acres of SRA habitat. In addition, temporary indirect impacts such as sedimentation, dust, and soil erosion may occur to SRA located adjacent to construction activities. Implementation of **Mitigation Measures 5** and **9** would reduce impacts to riparian and other sensitive natural communities to a less-than-significant level.

Construction of the proposed Phase 1 and Phase 2 weirs and associated aquatic and riparian restoration would result in temporary impacts of 1.26 acres and permanent impacts of 0.39 acres of CDFW riparian and temporary impacts of <0.00 (0.003) acres and permanent impacts of 0.01 acres of CDFW unvegetated streambed. In addition, temporary indirect impacts such as sedimentation, dust, and soil erosion, may occur to CDFW jurisdictional areas located adjacent to construction activities. The District would obtain and be required to adhere to the project Streambed Alteration Agreement administered through CFGC 1600 and issued by the CDFW. Impacts to CDFW jurisdictional streambed and riparian areas are considered significant prior to mitigation. Implementation of **Mitigation Measures 5** and **9** would reduce impacts to CDFW jurisdictional streambed and riparian areas to a less-than-significant level.

- c) Potentially Significant Impact Unless Mitigation Incorporated - USACE potential wetlands and other Waters of the United States occur within the project impact areas. Impacts to these potentially jurisdictional features would be unavoidable. Specifically, the project would result in 0.08 acres of permanent impacts and 0.01 acres of temporary impacts to USACE potentially jurisdictional wetlands and 0.16 acres of permanent impacts and 0.17 acres of temporary impacts to USACE potential other Waters of the United States. In addition, there is the potential for USACE wetlands and other Waters of the U.S. to be indirectly impacted by project construction. Indirect impacts to these areas would mainly come in the form of indirect water quality impacts resulting from various construction activities. Pollutants of concern for jurisdictional areas include increases in sedimentation and the discharge of hazardous materials or debris during construction activities.

Erosion and sedimentation and hazardous materials spill or leakage from construction vehicles is also considered a potential impact to jurisdictional areas. The use of petroleum products (e.g., fuels, oils, and lubricants) and erosion of cleared land during construction could potentially contaminate surface water. Section 401 of the Clean Water Act requires water quality certification from the RWQCB when a project requires a Clean Water Act

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Section 404 permit to regulate the discharge of dredged and fill material into Waters of the United States, including wetlands from the USACE. Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the NPDES permit program for the discharge of any pollutant into Waters of the United States. As described further in Section 3.6 Geology and Soils, the District would submit a Notice of Intent (NOI) to the RWQCB to obtain coverage under the NPDES General Permit, and would prepare a stormwater pollution prevention plan (SWPPP) with BMPs to reduce impacts from erosion and sedimentation during grading. The District would also obtain and be required to adhere to the project Section 401 water quality certification issued by the RWQCB (Central Valley Region) and the project Section 404 permit issued by the USACE. Impacts to federally protected wetlands are considered significant prior to mitigation. Implementation of **Mitigation Measure 9** described above would further reduce any potential impacts to USACE jurisdictional areas to a less-than-significant level.

- d) Potentially Significant Impact Unless Mitigation Incorporated - Construction of the proposed project could temporarily disrupt the movement of fish species in Antelope Creek; however, construction of the new flood control elements (Upper and Lower Weirs) would benefit fish in the long-term.

Although anadromous salmonids (i.e., Chinook salmon and steelhead) are highly migratory and would be capable of moving freely throughout Antelope Creek, a sudden localized increase in turbidity could affect normal behaviors that are essential to growth and survival, such as feeding, sheltering, and migrating (NMFS 2003). Behavioral avoidance of turbid waters may be one of the most important effects of suspended sediments (Birtwell et al. 1984; Devore et al. 1980; Scannell 1988). Additional turbidity-related effects associated with behavioral alteration include disruption of feeding behaviors, which increases the likelihood that individual fish would face increase competition for food and space, and experience reduced growth rates, or possibly weight loss (NMFS 2003).

During construction of in-water project features, flow of Antelope Creek would be partially blocked with the partial installation of a cofferdam. The proposed project would maintain flow in a side channel. The cofferdam could restrict upstream and downstream movement of native fish, including special-status species; however, the potential for entrainment and stranding is low because an in-water construction work window of June 15th through October 15th (special-status species not present) would be implemented. Furthermore, the upstream and downstream slopes of the creek would be protected with erosion control mat and riprap, reducing the likelihood of erosion (i.e., increase in turbidity) during construction, as well as post construction.

The existing culverts at the Phase 2 (Upper Weir) location impede fish passage. The proposed Phase 1 and Phase 2 Weirs would include culvert design options that provide either an open natural streambed bottom or embedded culverts, allowing the low flow channel to meet the key objectives of the proposed projects and conform to culvert design criteria and stream crossing guidelines of the CDFW and NMFS. As stated in Chapter 2, the Phase 2 (Upper Weir) would provide a significant benefit to fish by removing an existing fish passage barrier and allowing fish to migrate during low flows. Implementation of **Mitigation Measure 2** would reduce potential impacts to fish species to a less-than-significant level.

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Implementation of the proposed project would not remove, degrade or otherwise interfere substantially with the structure or function of the marginal quality wildlife movement corridor in the study area.

- e) Potentially Significant Impact Unless Mitigation Incorporated - Construction of the Phase 1 (Lower Weir) and Phase 2 (Upper Weir) would result in the removal of approximately 10-20 oak trees. Oak trees are considered sensitive by the City of Roseville and are governed by the City's Tree Preservation Ordinance (Chapter 19.66 of the Zoning Ordinance). Per the City of Roseville Tree Preservation Ordinance a native oak tree is any tree of the genus *Quercus* and species *lobata* (valley oak), *douglasii* (blue oak), *wislizenii* (interior live oak) or hybrids thereof. The project is required to comply with the City's Tree Preservation Ordinance. Consistent with the City's Tree Preservation Ordinance, the District can mitigate for oak trees that would be removed during construction of the proposed project either through payment of in lieu fees, site plantings, or a combination of both. The District intends to mitigate for impacts to oak trees through on-site planting. Implementation of **Mitigation Measure 7** would reduce potential impacts to oak trees to a less-than-significant level. In addition, the project includes restoration elements (see Chapter 2) that are consistent with the City's Tree Preservation Ordinance, and are intended to minimize impacts of encroachment.
- f) No Impact - The project would not conflict with any conservation plans because there are no adopted plans that apply to the study area; therefore, no impact would occur.

MITIGATION MEASURES

Mitigation Measure 1

Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

- a) A buffer zone of 100-feet or greater shall be established and maintained around elderberry shrubs within the project impact areas, as feasible. Complete avoidance may be assumed when a 100-foot (or wider) buffer is established and maintained around elderberry plants containing stems measuring 1.0 inch or greater in diameter at ground level.
- b) The following mitigation measures shall be implemented for construction operations in the vicinity of any elderberry shrubs that would not be removed.
 - All areas to be avoided during construction activities, specifically the 100-foot buffer zone around elderberry shrubs, shall be fenced and flagged. In areas where encroachment on the 100-foot buffer has been approved by the USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry shrub shall be provided in most cases. In some cases, construction activity may be required within 20 feet of a shrub. In these cases, fencing shall be placed at the greatest possible distance from the shrubs.
 - A worker awareness training program for construction personnel shall be conducted by a qualified biologist prior to beginning construction activities. The program shall inform all construction personnel about the life history and status of the beetle, requirements to avoid damaging the elderberry plants, and the possible penalties for not complying with these requirements. Written documentation of the training shall be submitted to USFWS within 30 days of its completion.

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- Signs shall be erected every 50 feet along the edge of avoidance areas with the following information: "This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment." The signs shall be clearly readable from a distance of 20 feet, and shall be maintained for the duration of construction.
- Pre-construction and post-construction surveys shall be done of the elderberry shrubs in the project area. Pre-construction surveys shall document compliance with mitigation measures. The post-construction survey shall confirm that there was no additional damage to any of the elderberry shrubs than as described in this document.
- Temporary construction impacts within the buffer area (area within 100 feet of elderberry shrubs) shall be restored. If any portion of the buffer area is temporarily disturbed during construction, it shall be revegetated with native plants and erosion control shall be provided.
- Buffer areas shall continue to be protected after construction from adverse effects of the project. Measures such as fencing, signs, weeding, and trash removal shall be implemented as appropriate.
- No insecticides, herbicides, fertilizers, or other chemicals that might harm the beetle or its host plant shall be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level. All drainage water during and following construction shall be diverted away from the elderberry shrubs.
- A written description of how the buffer areas are to be restored, protected, and maintained after construction is completed shall be provided to USFWS.
- Mowing of grass can occur from July through April to reduce fire hazard, however, no mowing should occur within five feet of elderberry shrub stems. Mowing shall be done in a manner that avoids damaging shrubs.
- Dirt roadways and other areas of disturbed bare ground within 100 feet of elderberry shrubs shall be watered at least twice a day, when in use, to minimize dust emissions.

Mitigation Measure 2

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Special-Status Fish Species

The following mitigation measures would reduce impacts to Central Valley steelhead and Central Valley fall/late-fall run Chinook salmon to less-than-significant:

- a) Work shall be restricted to the in-water work window of June 15th through October 15th, when special-status fish species are not present within the creek. In-channel activities (i.e., grading activities associated with the proposed project) shall be conducted "in the dry".

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- b) The District's contractor shall prepare and implement a fish rescue plan during any dewatering activities. The plan shall include utilizing a qualified biologist to capture, remove, and relocate all fishes utilizing areas to be dewatered. The plan shall be provided to NMFS and CDFW for approval prior to the onset of construction activities.

Mitigation Measure 3

Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers if Necessary

- a) In winter/spring of the year that construction is scheduled to commence, Swainson's hawk nesting surveys shall be conducted by a qualified biologist within the study area and accessible areas outside the study area within 0.25 mile of proposed construction activities according to the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee, May 31, 2000). A report shall be submitted to CDFW prior to construction reporting the results of the pre-construction surveys.
- b) If no active Swainson's hawk nests are identified in or within 0.25 mile of proposed construction activities, then no further mitigation for nesting Swainson's hawks is necessary. If an active Swainson's hawk nest(s) is identified within 0.25 mile of proposed construction activities, impacts to active nests shall be avoided by establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers shall be determined by a qualified biologist in conjunction with CDFW and may vary, depending on the nest location, nest stage, and construction activity. No project activity shall commence within the buffer area until the biologist confirms that the nest is no longer active. Monitoring shall be conducted to confirm project activity is not resulting in detectable adverse effects to active nests. A post-construction report shall be submitted to CDFW documenting the results of Swainson's hawk nest monitoring within 30 days of completion of construction activities.

Mitigation Measure 4

Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

- a) If construction begins during the typical avian breeding season (February 15 to September 15), pre-construction surveys shall be conducted by a qualified biologist within two weeks prior to commencement of construction to determine presence/absence of raptor and migratory bird nests. Surveys shall be conducted in the study area and in accessible areas outside of the study area that fall within 500 feet of construction activities. A report shall be submitted to CDFW prior to construction reporting the results of the preconstruction surveys. If no nests are found during the survey, no further mitigation shall be necessary. If nests are found, then the following mitigation shall be implemented.
- b) Impacts to active nests shall be avoided by establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers shall be determined by a qualified biologist in conjunction with CDFW and may vary, depending on the nest location, nest stage, and construction activity. No project activity shall commence within the buffer area until the biologist confirms that the

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nest is no longer active. Monitoring shall be conducted to confirm project activity is not resulting in detectable adverse effects to active nests.

Mitigation Measure 5

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Special-Status Species and Sensitive Habitats

- a) The project limits shall be clearly demarcated. Erosion control fencing shall be placed at the edges of construction where the construction activities are upslope of aquatic habitats to prevent washing of sediments into these features. All fencing shall be installed prior to any construction activities beginning and shall be maintained throughout the construction period.
- b) During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies shall be restricted to the designated construction staging areas. To eliminate an attraction to predators, all food-related trash items, such as wrappers, cans, bottles, and food scraps, shall be disposed of in closed containers. Revegetation shall occur on all areas temporarily disturbed by construction activities.
- c) All temporary impact areas shall be restored to pre-project contour and revegetated. A revegetation plan shall be developed to address all temporarily impacted native habitat and NNAG.

Mitigation Measure 6

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

- a) The District shall conduct pre-construction surveys for burrowing owl of suitable habitat within the study area and a 500-foot buffer no more than 30 days and no less than 14 days prior to initiating ground disturbance activities. A report shall be submitted to CDFW prior to construction reporting the results of the pre-construction surveys. If no burrowing owls are found during any of the surveys, no further mitigation shall be necessary.
- b) If burrowing owl is identified within the 500-foot buffer of the study area during the non-breeding season (September 1 through January 31), then an appropriate buffer shall be established by the biological monitor in accordance with the *2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Construction within the buffer shall be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented.
- c) If burrowing owl is identified during the breeding season (February 1 through August 31) then an appropriate buffer shall be established by the biological monitor in accordance with the *2012 Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Construction within the buffer shall be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged and a CDFW-approved exclusion plan has been implemented. In addition to avoidance of the occupied habitat, off-site mitigation shall be provided as described below:
 - i. Replacement of occupied habitat with occupied habitat: 1.5 times 6.5 (9.75) acres per pair or single bird.

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- ii. Replacement of occupied habitat with habitat contiguous to currently occupied habitat: 2 times 6.5 (13.0) acres per pair or single bird.
- iii. Replacement of occupied habitat with suitable unoccupied habitat: 3 times 6.5 (19.5) acres per pair or single bird.

Mitigation Measure 7

Implementation of City of Roseville Tree Preservation Ordinance

To mitigate for impacts to mature oak trees in accordance with the City of Roseville Tree Preservation Ordinance, on-site mitigation is proposed along with oak woodland restoration, which is included as part of the project. On-site mitigation plantings would be located within the proposed oak woodland restoration area identified on Figure 2-6. Mitigation plantings would be maintained and monitored in the same manner as the proposed restoration plantings described in Chapter 2.

A protected oak tree per the City of Roseville ordinance is a native oak tree equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. The City may condition any tree permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the DBH of the removed tree(s) where a 15 gallon tree shall replace one inch DBH of the removed tree; a 24-inch box tree shall replace two inches, and a 36-inch box tree shall replace three inches. The replacement trees shall have a combined diameter equivalent not less than the total diameter of the tree(s) removed. A minimum of 50 percent of the replacement requirement shall be met by native oaks. Up to 50 percent may be met by non-native species.

Mitigation Measure 8

Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State-Sensitive Species Western Pond Turtle and Western Spadefoot.

The following mitigation would reduce impacts to western pond turtle and western spadefoot.

- a) Pre-construction surveys for western spadefoot toad shall be conducted by a qualified biologist during the rainy season prior to the initiation of construction activities. If western spadefoot toad is observed in the vicinity of the study area then exclusionary fence shall be constructed around potential spadefoot toad estivation habitat within the project impact areas. Any toads observed within the project impact areas would be relocated outside of the project impact areas. The exclusionary fence shall be maintained in good condition from installation until construction completion.
- b) A qualified biologist shall be present during initial construction activities within the creek and/or adjacent wetlands and during any dewatering activities. If any western pond turtle are observed in the construction area, including any dewatered areas, they shall be captured and relocated to an appropriate location up or downstream of the construction area. The qualified biologist shall have the authority to stop construction until the western pond turtle can be safely relocated.

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- c) Construction personnel would participate in a worker environmental awareness program. A qualified biologist would inform all construction personnel about the life history of western pond turtle and western spadefoot, their potential presence in the project area, and explain the state laws pertaining to protecting these species and their habitat.

Mitigation Measure 9

Implementation of Avoidance and Minimization Measures for Construction Related Impacts to federally protected wetlands as defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

As part of the Section 404 and Section 1600 permitting processes, if the USACE (and/or CDFW) requires compensatory mitigation, a draft wetland/riparian mitigation and monitoring plan (MMP) shall be developed. The MMP shall be consistent with USACE's and EPA's April 10, 2008 Final Rule for Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230).

At a minimum, mitigation for impacts to Federal and state jurisdictional areas shall occur at the following ratios:

1. USACE Wetland and other Waters
 - Permanent: 2:1 through establishment, enhancement and/or restoration
 - Temporary: restoration (in-kind)
2. CDFW Riparian and streambed
 - Permanent: 2:1 through establishment, enhancement and/or restoration
 - Temporary: restoration (in-kind)

CONCLUSION

Implementation of **Mitigation Measures 1** through **9** would further ensure that the proposed project would not significantly impact biological resources in the project area.

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3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Prehistoric Setting

The Sacramento Valley has a long and rich history. The Clovis culture, which is the earliest well-documented cultural expression in the Americas, occurred between approximately 13,500 to 13,000 years ago. The cultural pattern is distinguished by “fluted” projectile points, percussion blades, and other distinctive artifacts. Very few Clovis sites have been identified in North America. By the early Holocene, evidence from numerous archaeological sites throughout the state show that California was fully explored by this time and supported a significant population. By 4000 years before present (BP), large sedentary populations had emerged throughout the Sacramento Valley, especially along major water sources (Leach-Palm and Meyer 2012: 20). Shell and obsidian objects recovered from sites in this area indicate the participation of Delta groups in inter-regional exchange networks with foothill and coastal populations (Moratto 2004: 203, 206).

By 2000 BP, the lack of discernible relations between archaeological complexes and the known material cultures of ethnographic Californian populations end. In the lower Sacramento Valley, the Windmill Pattern is gradually replaced by the Berkeley Pattern, likely due to the movement of ancestral Miwok populations from the Bay Area. Important subsistence changes take place as the acorn emerges as a clearly important staple; a process marked by a proliferation of the use of bedrock mortars. Between 1100 and 700 BP, the bow and arrow appears as the preeminent weapon and was already being used by Sacramento Valley populations prior to the widespread adoption of the technology throughout California. The Berkeley Pattern was followed by the Augustine Pattern in the Central Valley, and included elements such as flexed burials, cremation, mortar and pestle technology, and a monetary system based on clam shell disc beads (Moratto 2004: 211-212).

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Ethnographic Setting

The Project is located within an area traditionally occupied by the Nisenan, also referred to as the Southern Maidu, the southernmost branch of the Maidu-Konkow group occupying the lower reaches of the Yuba, Feather, and American Rivers and extending as far west as the Sacramento River (Eargle 2008; Kroeber 2006). The Nisenan were year-round hunters and gatherers with access to varied biotic zones distributed across the western slope of the Sierra Nevada (Hull 2007:180). Hunting was done communally, by conducting drives and burnings, with the best marksman doing the kill. Deer, antelope, elk, black bear, wildcats, mountain lions, and other small game were caught and either roasted, baked, or dried. Gathering was also a communal activity, organized around seasonal ripening of specific resources including roots, wild onion, wild sweet potato, Indian potato, and a variety of nuts. Acorn was a major staple of the Nisenan diet; these were shelled, ground into flour, and stored for year-round use. Some fishing holes or territories for deer drives were utilized by certain grouped families; however, individual hunters crossed family and political boundaries with impunity (Kroeber 2006; Wilson and Towne 1978).

The Nisenan used many tools including stone knives, arrow and spear points, scrapers, pestles, and mortars. Weirs, nets, harpoons, traps, and gorgehooks were used for fishing from tule balsas and log canoes. Baskets were woven from willow and redbud and were used for storage, cooking, and processing (Hull 2007; Kroeber 2006; Wilson and Towne 1978). Materials for most tools and ornaments were obtained locally. However, a network of trails crossed Nisenan territory allowing for access and trade with other areas. The same trade networks moved north and south along the west face of the Sierra and along the crest of the range, allowing access to non-local goods to supplement local resources.

Historical Setting

Early Spanish explorers and missionaries were the first Europeans to reach northern California in the early 1800s. In 1808, Lieutenant Gabriel Moraga first explored the Sacramento Valley, but Sacramento was not settled until the late 1830s and early 1840s, when Captain John Sutter built a trading post and stockade on 76 acres obtained through land grants from the Mexican government (Burns 1999:18-29; Hoover et al. 1966:298-299). Sutter's Fort brought an increase of trappers, hunters, and pioneers to the area. It provided shelter, goods, and work to thousands of new settlers in the Sacramento Valley. During its heyday, California became a territory of the United States as a result of the Mexican War (1847-1848). In 1848, gold was discovered by John Marshall at Sutter's Mill in Coloma and brought a large influx of settlers into the Sacramento region. As the population steadily increased, many settlers found raising grain, livestock, and produce to sell to the thousands of miners heading to the gold fields a lucrative endeavor (Burns 1999:18-29; Hoover et al. 1966:298-299). A stage stop of the Monterey Trail, which was about 15 miles south of Sutter's Fort, encouraged settling in the area and proved to be profitable for many settlers. The Sacramento Valley served the needs of gold miners and the growing agricultural business. Livestock, vineyards, orchards, and row crops were established in the area known for its rich soil and water resources (Pinkerton 1998).

Gold miners returning from the mines established an agricultural industry in the Sacramento Valley, including Roseville, in the late 1850's. Industrial growth began in the mid to late 1860's following the completion of a Central Pacific Railroad line through the town. In 1906, the UPRR, which had purchased the Central Pacific Railroad's operations, selected Roseville as the site of a large switching yard. The construction of the switching yard led to an immediate economic boom and a corresponding increase in population. In 1909 Roseville was incorporated as a city (City of Roseville, 2012). Today, Roseville is largely urban and developed, and with a population of over 118,000, it is the largest city in Placer County (US Census Bureau 2012).

Consultation

HDR Engineering, Inc. (HDR) contacted the Native American Heritage Commission (NAHC) on June 18, 2012 requesting a search of their Sacred Lands File and a list of groups or individuals who may have knowledge of the project study area. On July 11, 2012, the NAHC responded that there is no known presence of Native American sacred sites in its files for the project study area. The NAHC also provided a list of tribes and individual contacts who may be interested in the proposed project. HDR contacted the listed Native American tribes and individual tribal members provided on the list and received one response from the United Auburn Indian Community (UAIC) of the Auburn Rancheria requesting a site visit of the project study area. HDR attended the site visit with the UAIC tribal representatives on August 28, 2012. No responses were received from the other tribes and individuals contacted regarding the proposed project.

Records Search

A record search of the project study area was conducted in June 2012 at the North Central Information Center (NCIC) of the California Historical Records Information System to identify known resources in the Project area. The record search indicates that there have been sixteen cultural resources studies conducted in the vicinity of the proposed project and within a quarter-mile radius. Three of the studies were conducted within the project study area. Two previously recorded cultural resources, P-31-1435 and P-31-1443, were also identified within the project study area. P-31-1435 is a bedrock milling site with one mortar cup that was originally recorded as an isolate. P-31-1443/CA-PLA-1116 is a prehistoric lithic scatter with possible midden. Archaeological site records indicate that two additional sites, P-34-764 and P-34-1969 are within a quarter-mile radius of the project study area. Other background research included reviews of reports and records relevant to the project study area, and historic period maps.

Additionally, the UAIC Tribal Preservation Officer noted that their records indicate that the village of Pitsokut was located within the project study area, though the presence or location of such a village has never been verified. HDR visited the UAIC Tribal Office on September 5, 2012 to review records held in their archives. No documentation or other information could be found in the UAIC records regarding the village of Pitsokut.

Field Survey and Results

On August 27-28, 2012, HDR conducted a pedestrian archaeological survey of the project study area in an effort to identify historical resources. All cultural resources discovered within or immediately adjacent to the survey area were documented according to current professional standards. Of the two previously recorded sites, the only evidence of site P-31-1443 was a single basalt handstone fragment identified at the location previously noted for the site. No other artifacts were observed at the site due to poor surface visibility. P-31-1435 could not be located as the site appears to be underwater in an artificially created wetland area. One new site was identified and recorded during the survey, P-31-5578; the remains of a roughly L-shaped rock alignment which is one course high and 33 feet long by 10 feet wide. No other artifacts or features were present at site P-31-5578.

Neither sites P-31-1435 or P-31-1443 have been formally evaluated for CRHR eligibility and the two prehistoric sites would require additional testing to determine eligibility. For the purposes of the proposed project, both sites would be treated as if they are eligible for listing on the CRHR. Site P-31-5578 was found to be ineligible for the CRHR as it did not meet any of the criteria for a historical resource (Behrend and Ramsey Ford 2013).

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a) Potentially Significant Unless Mitigation Incorporated - Two potential historical resources eligible for listing on the CRHR were identified north of the project study area. No other resources were identified within the project study area. It is reasonable to conclude that the proposed project should not result in the alteration of or adverse physical or aesthetic effect to any other significant historical resources. However, it is possible that previously unknown historical resources could be discovered during grading and excavation work associated with new construction. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** would reduce this impact to a less-than-significant level.
- b) Potentially Significant Unless Mitigation Incorporated - Although the project study area has been subjected to a systematic surface investigation, it is possible that buried or concealed archaeological resources could be present and may be detected during ground-disturbing and other construction activities. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** described below would reduce this impact to a less-than-significant level.
- c) Potentially Significant Unless Mitigation Incorporated - There are no known significant paleontological sites or deposits within the area of proposed disturbance, based on the records search and field study, however, the possibility of encountering paleontological resources cannot be entirely discounted. This is considered a potentially significant impact. Implementation of **Mitigation Measure 10** described below would reduce this impact to a less-than-significant level.
- d) Potentially Significant Unless Mitigation Incorporated - There are no known human burials or remains within the area of proposed disturbance, however, the remote possibility for encountering human remains during construction of the Project does exist. This is considered a potentially significant impact. Implementation of **Mitigation Measure 11** would reduce this impact to a less-than-significant level.

MITIGATION MEASURES

Mitigation Measure 10

Protection of Prehistoric or Historic Subsurface Cultural Resources

In the event that any prehistoric or historic subsurface cultural resources including unusual amounts or fragments of bone are discovered during construction-related grading activities, all work within 50 feet of the resource shall be halted and the District shall consult with a qualified cultural resources specialist to assess the significance of the find. If any resources found on the site are determined to be significant, the District and the consulting cultural resources specialist shall determine the appropriate course of action. A report shall be prepared by a qualified cultural resources specialist and filed with the Office of Historic Preservation and/or the North Central Information Center on the appropriate forms documenting the importance of all significant cultural resources found at the site. This mitigation measure shall be noted on all construction plans and specifications prepared for the proposed project.

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Mitigation Measure 11 **Protection of Human Remains**

In accordance with the California Health and Safety Code (CHSC), Section 7050.5, and the PRC 5097.98, regarding the discovery of human remains, if any such finds are encountered during construction of the proposed project, all work within the vicinity of the find shall cease immediately and a 50 foot-wide buffer surrounding the discovery shall be established around it. The District, or its agent, shall be immediately notified. The County coroner shall be contacted immediately to examine and evaluate the find. If the coroner determines that the remains are not recent and are of Native American descent, the coroner shall contact the NAHC in accordance with CHSC Section 7050.5, and PRC 5097.98. The District shall work with the most likely descendent, as determined by the NAHC, on an appropriate means of treating the remains. All project personnel should be instructed that any human remains encountered should always be treated with sensitivity and respect, and their discovery and location kept confidential. Construction personnel should be briefed prior to construction activities regarding procedures to follow in the event buried human remains are encountered.

CONCLUSION

With implementation of **Mitigation Measures 10** and **11**, the proposed project would not result in significant impacts to cultural resources.

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3.6 GEOLOGY AND SOILS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Placer County is located in the Great Valley Geomorphic Province of California, bordered on the west by the Coast Ranges and the east by the Sierra Nevada. The Great Valley is an alluvial plain about 50 miles wide and 400 miles long in the central part of the state.

According to the City of Roseville General Plan, the State Division of Mines and Geology classifies the City as a low severity earthquake zone. Numerous faults have been identified within 100 kilometers (~60 miles) of the Sacramento area, and as such, the City could be subject to potential seismic activity. However, there are no known active faults located within Placer County. The City of Roseville General Plan also indicates that no determination has been made

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

that liquefaction exists in the Roseville area but to date liquefaction has not been a significant problem within the City. The City of Roseville is generally located on level terrain; however, some significant slope areas occur along creeks and ravine areas, such as the project study area.

Soils within the Dry Creek watershed are variable, but generally contain either granitic or volcanic parent material, and may include a clay pan, or other consolidated layer impeding water permeability.

DISCUSSION OF IMPACTS

- a) No Impact - The project study area is not located on an Alquist-Priolo Earthquake Fault Zone, and is classified as a low severity earthquake zone according to the California Department of Mines and Geology. No active faults are located within the County. Based on the City's geographic location, soil conditions, and surface terrain, risk from landslides, subsidence, or other geologic hazards resulting from seismic activity are considered low. Construction activities for the proposed project would be temporary and short-term, and would not expose people or structures to any increase in existing potential for substantial effects from earthquake, seismic ground shaking, seismic ground failure, or landslides. Therefore, no impact would occur with project implementation.
- b) Less-than-Significant Impact - There is the potential for grading and construction activities associated with the proposed project to result in soil erosion. In accordance with National Pollutant Discharge Elimination System (NPDES) regulations, to minimize the potential effects of construction runoff on receiving water quality, the state requires that all municipal, industrial and commercial facilities that discharge wastewater or stormwater directly from a point source into a water of the United States must obtain a NPDES permit. In order to obtain coverage under the General Permit, a Notice of Intent (NOI) is required to be filed with the RWQCB. In conjunction with submittal of a NOI to the RWQCB, a SWPPP is required to be prepared and retained on site during construction, and must contain Best Management Practices (BMPs) to reduce impacts from erosion and sedimentation during grading. The SWPPP shall conform to all standards adopted by the District and the City of Roseville. BMPs implemented as part of the SWPPP may include the following procedures:
 - 1) restricting grading to the dry season;
 - 2) protecting all finished graded slopes from erosion using such techniques as erosion control matting and hydroseeding;
 - 3) protecting downstream properties and receiving waters from sedimentation;
 - 4) use of silt fencing and straw wattles to retain sediment on the project site;
 - 5) use of temporary water conveyance and water diversion structures to eliminate runoff to the fill slopes; and
 - 6) any other suitable measures outlined in an approved Erosion Control Manual.

The erosion control measures outlined above would be implemented during construction of the proposed project where required and would reduce soil erosion impacts to less-than-significant.

- c) Less-than-Significant Impact - Direct impacts related to the potential for landslides, liquefaction, and soil erosion are addressed in Items (a) and (b) above. Construction activities for the proposed project would be temporary and short-term, and are not likely to result in substantial soil erosion or require deep excavations. Construction activities are not

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anticipated to result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts would be less-than-significant.

- d) No Impact - No structures for human occupancy would be constructed as part of the proposed project. Because no new risks to life or property would be created, the project would have no effect related to expansive or unstable soils. Therefore, no impact would occur with project implementation.
- e) No Impact - Soils at the project site are adequate to support the proposed project and associated equipment. No alternative wastewater disposal systems are proposed as part of the project. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in the exposure of people or structures to potential substantial adverse effects related to unstable geologic units or soils. The proposed project would comply with NPDES regulations and would implement a SWPPP with BMPs. Therefore, there are no significant adverse geologic effects associated with project implementation.

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3.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHGs related to human activity that include CO₂, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill (AB) 1493, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. AB 1493 required CARB to develop and implement regulations to reduce automobile and light truck GHG emissions.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In 2006, this goal was further reinforced with the passage of AB 32, the Global Warming Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32. AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

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In October 2008, CARB published its Climate Change AB 32 Scoping Plan, which is the state's plan to achieve GHG reductions in California required by AB 32. The scoping plan was approved by CARB on December 11, 2008.

Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. In turn, global climate change has the potential to result in rising sea levels, which can inundate low-lying areas; reduce snowpack, leading to less overall water storage in the Sierra Nevada; affect rainfall, leading to changes in water supply, increased frequency and severity of droughts, and increased wildfire risk; and affect habitat and agricultural land, leading to adverse effects on biological and agricultural resources.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. When the adverse change is substantial and the project's contribution to the impact is considerable, the cumulative impact would be significant. The cumulative project list for this issue (global climate change) comprises anthropogenic (i.e., human-made) GHG emission sources across the entire planet. No project alone would contribute to a noticeable incremental change to the global climate. However, AB 32 and executive order S-3-05 have established a statewide context for GHG emissions, and an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that the cumulative impacts of GHGs, even additions that are relatively small on a global basis, need to be considered. Because of the cumulative nature of the climate change problem, even relatively small contributions may be potentially considerable (and therefore, significant).

Section 15064.4 of the recently adopted CEQA Guidelines states:

“(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- 1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or,
- 2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- 1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

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- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project (CEQA 2009).

At the time of the analysis conducted for the proposed project, neither the state nor the PCAPCD have identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. Therefore, to make the determination whether the incremental impacts of the proposed project are "cumulatively considerable" the incremental impacts of the proposed project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

According to the City of Roseville General Plan, "at the local level, the goals, policies and implementation measures in Roseville's General Plan constitute an incremental step, in coordination with efforts on a larger scale, from state to international efforts, which will contribute to counteracting the effects of Climate Change, and reduce greenhouse gas emissions."

DISCUSSION OF IMPACTS

- a), b) Less-than-Significant Impact - GHG emissions generated by the proposed project would be primarily in the form of CO₂ from construction equipment exhaust. Although emissions of other GHGs such as methane and nitrous oxide are important with respect to global climate change, the emissions levels of these GHGs for the sources associated with project construction are nominal compared with CO₂ emissions, even considering their higher global warming potential.

Emissions factors and calculation methods for estimating GHG emissions associated with infrastructure projects have not been formally adopted for use by the state or the PCAPCD. There would be no significant increase in the amount of electricity, water, or operational GHG emissions compared to current conditions as a result of implementation of the proposed project. The proposed project anticipates a construction period of approximately four months for Phase I and an additional four months for future Phase 2. During this time, a small net increase in GHG emissions would result from various construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy-duty construction equipment, transport trucks hauling materials, and worker commute trips. Although any increase in GHG emissions would add to the quantity of emissions that contribute to global climate change, it is noteworthy that emissions associated with construction of the proposed project would occur over a finite period of time. As stated in Chapter 2 Project Description, the construction labor force is estimated to average 10-15 workers over each phase of the construction period. Construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. After completion of construction, all construction emissions would cease.

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Therefore, the proposed project would have a negligible contribution towards statewide GHG inventories.

Because construction-related emissions would be temporary and finite, and below the minimum standard for reporting requirements under AB 32, the proposed project's GHG emissions would have a negligible cumulative contribution towards statewide GHG emissions and are not determined to be a considerable contribution to the cumulative global impact. In addition, the proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Thus, project-related impacts as a result of GHG emissions would be less-than-significant.

CONCLUSION

The proposed project would not significantly affect regional GHGs as a result of project construction due to the extremely small amount of GHG emissions associated with the project construction activities.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

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

ENVIRONMENTAL SETTING

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According to Cal/EPA, the provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with CEQA. The Cortese list, which includes the resources listed below, was reviewed for references to the proposed project site:

- List of Hazardous Waste and Substances sites from the DTSC EnviroStor database;
- List of Leaking Underground Storage Tank Sites from the SWRCB GeoTracker database;
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB; and
- List of hazardous waste facilities subject to corrective action identified by DTSC.

In order to further assess the hazards and hazardous materials risks associated with the project study area, HDR reviewed reasonably ascertainable and reviewable regulatory information published by Federal, state, local, tribal, health, and/or environmental agencies pertaining to the project area; reviewed historical data sources for the project area, including aerial photographs, topographic maps, fire insurance maps, city directories, and other readily available development data; and conducted an area reconnaissance with a focus on indications of hazardous substances, petroleum products, wells, storage tanks, solid waste disposal pits and sumps, and utilities.

Environmental Data Resources, Inc. (EDR), was contracted by HDR to complete the database search of records for the project study area. The databases searched included Federal, state, local, and tribal databases, and the project study area does not contain any sites listed in the searched databases. However, adjacent to the project study area are two closed landfills: the Roseville Sanitary Landfill, located north of Roseville Parkway, and the Berry Street Mall Landfill, located south of Roseville Parkway. The Roseville Sanitary Landfill is an approximately 100-acre site that was closed in 1994. The Berry Street Mall Landfill is an approximately 26-acre site that was closed in 1987. Active monitoring wells are located throughout the project study area, and the water and air quality are routinely tested.

DISCUSSION OF IMPACTS

- a) **Less-than-Significant Impact** – During excavation, grading, and construction activities for the proposed project, it is anticipated that limited quantities of miscellaneous hazardous substances (such as petroleum-based products/fluids, solvents, and oils) would be employed in the project area and staging area. The proposed project would comply with all relevant Federal, state, and local statutes and regulations related to transport, use, or disposal of hazardous materials. Therefore, impacts related to transport, use, or disposal of hazardous materials would be less-than-significant. Construction activities would incorporate BMPs (as required by Federal and state regulations) and would minimize hazards resulting from routine transport, use, or disposal of hazardous materials.
- b) **Less-than-Significant Impact** – The operation and storage of construction equipment on the project site has the potential to affect water quality through the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways. However, spill prevention measures would be included on the construction plans for the proposed improvements to address the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways. Such measures would include rules requiring the storage of reserve fuel and the refueling of

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- construction equipment within designated construction areas and the staging area, and inspection of vehicles for oil and fuel leaks. Therefore, impacts related to accidental release of hazardous materials into the environment would be less-than-significant.
- c) No impact – The project study area is not located within a ¼ mile of an existing or proposed school. Therefore, no impact would occur with project implementation.
 - d) No impact – The project study area is not included on a list of hazardous materials sites complied pursuant to government Code Section 65962.5. Impacts to the project area resulting from the adjacent closed landfill sites are not anticipated. Therefore, no impact would occur with project implementation.
 - e) No impact – The project study area is not located within an airport land use plan or within 2 miles of a public or public use airport, and therefore no safety hazard would result for people residing or working in the project area. Therefore, no impact would occur with project implementation.
 - f) No impact – The project study area is not located within the vicinity of a private airstrip, and therefore no safety hazard would result for people residing or working in the project area. Therefore, no impact would occur with project implementation.
 - g) No impact – The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, no impact would occur with project implementation.
 - h) Less-than-Significant Impact – The project study area includes open space; however, according to the City of Roseville General Plan, most of the City is considered a low-severity zone for wildland fire hazards. The proposed project would not add any new uses that could create a greater fire risk than currently exists. Fire suppression equipment including fire extinguishers would be kept on site during construction in accordance with local fire codes and standards. In addition, construction activities that could generate sparks would be conducted in the staging areas and a sufficient distance away from the existing landfill gas monitoring wells. Therefore, the exposure of people or property to significant fire hazards would be less-than-significant.

CONCLUSION

The proposed project would not result in significant impacts as a result of the use or transport of hazards and hazardous materials.

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3.9 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL SETTING

According to the City of Roseville General Plan, the City is located within two drainage basins: Pleasant Grove Creek and Dry Creek. Dry Creek and its tributaries drain portions of the City from Rocklin to the north, Loomis Basin to the east, Sacramento County to the south, and Placer County to the west. The Dry Creek system has year-round flows in its major water courses.

According to the Updated Dry Creek Watershed Flood Control Plan, the Dry Creek watershed covers an area of approximately 100 square miles in Placer and Sacramento Counties. The headwaters of Dry Creek are located in the upper portions of the Loomis Basin, in the Granite Bay area near Folsom Lake, and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, combine near I-80 and Atlantic Street in Roseville to form Dry Creek. Antelope Creek is a perennial creek draining the northeast portion of the Dry Creek watershed.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact - Construction activities associated with the proposed project could potentially cause or result in erosion and/or siltation. Erosion of onsite soils can lead to increased levels of suspended sediments and turbidity in receiving waters of Antelope Creek, and could potentially impact water quality and result in a violation of water quality standards. Section 401 of the Clean Water Act requires water quality certification from the RWQCB when a project requires a Clean Water Act Section 404 permit to regulate the discharge of dredged and fill material into Waters of the United States, including wetlands. Along with Section 401 of the Clean Water Act, Section 402 of the Clean Water Act establishes the NPDES permit program for the discharge of any pollutant into Waters of the United States. As described above in Section 3.6 Geology and Soils, the District would submit a Notice of Intent (NOI) to the RWQCB to obtain coverage under the NPDES General Permit, and would prepare a SWPPP with BMPs to reduce impacts from erosion and sedimentation during grading. Implementation of spill prevention measures to address the accidental or inadvertent release of oil, grease, or fuel into adjacent waterways would further help minimize potential construction-related water quality impacts.

The proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs and water to be temporarily detained on these properties during flood events. However, the project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells and probes is such that temporary inundation does not hamper the use of these facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary. The District would coordinate with the City of Roseville and the Central Valley RWQCB to amend the landfill's existing Waste Discharge Requirement No. R5-2004-0104 to account for the changed water surface elevation.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Therefore, construction and operation activities are not anticipated to affect water quality in the project area. This impact would be less-than-significant and no additional mitigation would be required.

- b) No Impact – The proposed project would not require the use of, or interfere with, groundwater supplies in the project study area. Potential changes in groundwater levels or quality are not expected to result from the implementation of the proposed project. As a result, groundwater supplies and groundwater recharge capability would not be affected in the project area. Therefore, no impact would occur with project implementation.
- c) Less-than-Significant Impact - Implementation of the proposed project would result in a slight increase in impervious surfaces at the project area. Impervious surfaces can alter drainage patterns or cause increases in the rate and amount of surface water runoff. Further, temporary erosion control measures outlined in Section 3.6 Geology and Soils would be implemented during construction, where required, to reduce the potential for erosion and sedimentation to occur. Therefore, impacts related to erosion or siltation resulting from the alteration of the existing drainage pattern would be less-than-significant.
- d-e) Less-than-Significant Impact - The objectives of the proposed project are to improve flood protection and reduce potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improve water quality downstream of the project area; enhance the existing riparian corridor and habitats; and, improve an existing public recreation corridor. The proposed project is intended to implement the Updated Dry Creek Watershed Flood Control Plan adopted by Placer County and detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Both proposed weirs would include a primary weir that would be designed and constructed to overtop during a 15- or 20-year storm event. The secondary weir or the top of embankment would be designed to overtop during approximately the 100-year storm event. The proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs and water to be temporarily detained on these properties during flood events. The proposed weir designs have limited the vertical increase in the 100-year base flood elevations to a maximum of less than 5 feet in the immediate upstream vicinity of both weirs. Therefore, the proposed project is not anticipated to substantially increase the rate or amount of surface runoff in a manner that would result in long-term flooding, or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Drainage water that may contain pollution has been addressed under heading a) of this section. Impacts related to surface runoff from the proposed project would be less-than-significant.

- f) Less-than-Significant Impact - As discussed under item a) above, the proposed project would include temporary erosion control measures to protect water quality in the project area. Therefore, the proposed project is not expected to substantially degrade water quality and impacts would be less-than-significant.

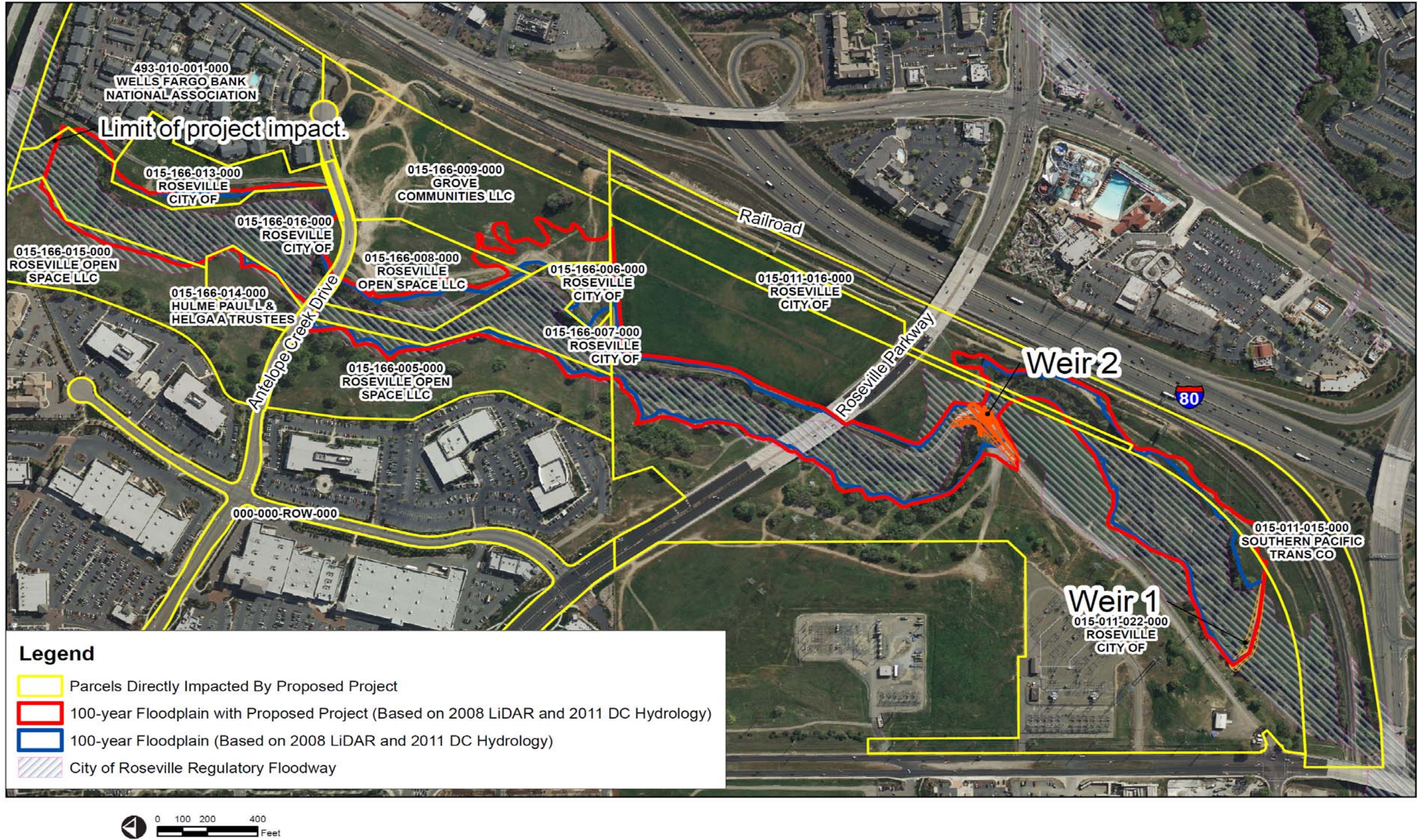
3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

- g) **Less-than-Significant Impact** –The proposed project configurations would cause 100-year water surface elevations to increase upstream from the weirs and this rise in water surface could reduce the area available for development on some private properties. Figure 3-2 shows the existing and proposed 100-year floodplain and the properties that would be potentially impacted by the proposed project. As shown on Figure 3-2, the change in the 100-year floodplain would not place any existing housing in the 100-year floodplain. To minimize the effect of the rise in water surface elevation, the District could either obtain flood easements to offset the effects of water being temporarily detained on these properties during flood events or place fill on the properties in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy this change in water surface elevation. The proposed weir designs have limited the vertical increase in the 100-year base flood elevations to a maximum of less than 5 feet in the immediate upstream vicinity of both weirs. In addition, one automated ALERT-type stream level and precipitation gauge would be installed in the project study area. Since the proposed project would not place housing within the 100-year floodplain and the District is working with the upstream properties owners to minimize the effects of the rise in the water surface elevation, this impact is considered less-than-significant and no mitigation is required.
- h) **Less-than-Significant Impact** – The proposed project would not result in the placement of any structures within a 100-year flood hazard area that would impede or redirect flood flows. Rather the proposed project would include features that would detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties. As stated above under item g), the proposed project configurations would cause the 100-year water surface elevations to increase upstream from the weirs. To minimize the effect of the rise in water surface elevation, the District could either obtain flood easements to offset the effects of water being temporarily detained on these properties during flood events or place fill on the properties in a manner so as to maintain the land area available for development. Therefore, impacts related to the exposure of structures to flooding would be less-than-significant.
- i) **Less-than-Significant Impact** – The proposed project is expected to reduce the impact of flood flows downstream of the project area, and is not expected to expose people or structures to a risk of loss, injury or death from flooding. Impacts related to exposure of people or structures to flooding would be less-than-significant.
- j) **No Impact** - The potential for damage caused by tsunamis is considered low given that the project study area is not directly exposed to the open ocean. Seiches would be limited to the larger water bodies, such as reservoirs. Thus the potential for seiche, tsunami, or mudflow at the project area would be low.

CONCLUSION

The proposed project would not result in significant impacts to hydrology and water quality as described above.

Figure 3-2 Existing and Proposed 100 Year Floodplain and Surrounding Properties



3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.10 LAND USE AND PLANNING

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

ENVIRONMENTAL SETTING

The project study area is located in Placer County, in the City of Roseville. Land use designations for the project study area outlined in the City of Roseville General Plan 2025 include Open Space, Community Commercial, and Parks and Recreation. The project study area also falls within the North Central Roseville Specific Plan area, for which land use designations include: Open Space (OS), including Open Space/Recreation, Lower Watershed, Wetland Preserve, and Slope Easement; Community Commercial (CC); and Park/Recreation (PR). The City of Roseville Zoning Ordinance designates the project study area as: OS – Open Space; OS-SA/NC – Open Space-Special Area/Neighborhood Commercial; OS/FW – Open Space/Floodway; M2-General Industrial; PR – Park and Recreation; and CC-SA/NC – Community Commercial-Special Area/Neighborhood Commercial.

DISCUSSION OF IMPACTS

- a) No Impact – The proposed project would not result in the physical division of a community. The proposed project would not create a new barrier between various portions of the project area, and would not result in any permanent structures that would physically divide an established community. Therefore, no impact would occur with project implementation.
- b) No Impact – The proposed project would comply with all applicable land use plans, policies, and regulations. Therefore, no impact would occur with project implementation.
- c) No Impact – The proposed project would not conflict with implementation of a habitat conservation or natural community conservation plan. Therefore, no impact would occur with project implementation.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

CONCLUSION

The proposed project would not result in significant impacts to land use and planning as identified in the discussion above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.11 MINERAL RESOURCES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

In compliance with the California Surface Mining and Reclamation Act (SMARA), the California Division of Mines and Geology has established a classification system to denote both the location and significance of key extractive resources. Under SMARA, the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. According to the North Central Roseville Specific Plan, the mineral resource zone (MRZ) designation for the project study area is MRZ-3, which indicates that the significance of mineral deposits within this area cannot be determined based on available data.

DISCUSSION OF IMPACTS

- a) No Impact – The project study area does not contain areas that are designated for MRZs, and are not shown in the City or County General Plans as areas of mineral resources to be protected from further development. Implementation of the proposed project is not anticipated to result in the loss of mineral resources. Therefore, no impact would occur with project implementation.
- b) No Impact - The project study area is not located in an area delineated in the City of Roseville General Plan as locally important mineral resource recovery site. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant impacts to mineral resources for the reasons identified above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.12 NOISE

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

ENVIRONMENTAL SETTING

Noise-sensitive land uses generally include those uses where exposure would result in adverse effects (e.g., sleep disturbance, annoyance), as well as uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other land uses typically considered sensitive to noise include hospitals, convalescent facilities, parks, auditoriums, amphitheaters, public meeting rooms, motels, hotels, churches, schools, libraries, and other uses where low interior noise levels are essential.

A wide variety of land uses and potential noise sources are included in the project study area, such as the roadway and railroad noise. Noise-sensitive receptors in the project study area include recreational uses (Antelope Creek Trail) and the multi-family residential complex located east of and adjacent to the northern portion of the project study area,

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

The City of Roseville Municipal Code establishes standards for limiting potential noise impacts from construction activities. The Roseville Noise Ordinance allows construction activity on weekdays between the hours of 7:00 a.m. and 7:00 p.m. and on weekends between the hours of 8:00 a.m. and 8:00 p.m. The Noise Ordinance stipulates that all construction equipment used during these time periods shall be maintained in good working order. The Noise Ordinance does not define quantifiable noise levels for construction-related activities within the allowable time periods.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact - For the proposed project, which would generate altered noise conditions only during project construction activities, the City of Roseville Noise Ordinance (described above) is the applicable local noise standard. Construction of the proposed project would be temporary and short-term, and would occur outside of the noise restricted hours outlined in the City of Roseville Noise Ordinance. Thus, implementation of the proposed project would be consistent with the City of Roseville Noise Ordinance and impacts would be less-than-significant.
- b) Less-than-Significant Impact – Construction activities have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. As discussed in Chapter 2, on-site construction equipment is assumed to include a backhoe/front-end loader, a bobcat, a concrete truck, a haul truck, a hydraulic excavator, and a hydraulic crane. The proposed project is not anticipated to require deep excavations, but would be anticipated to generate some groundborne vibration and/or noise. However, no residential properties are located within 0.5 miles of the proposed construction activities. Therefore, since construction activity noise levels and vibration would be short-term and temporary and there are no nearby sensitive receptors that would be potentially exposed to excessive levels of groundborne vibration or noise levels impacts resulting from the proposed project would be less-than-significant.
- c) No Impact - The proposed project would not result in any permanent increase in ambient noise levels over existing noise levels. Therefore, no impact would occur with project implementation.
- d) Less-than-Significant Impact – As discussed under Item a) above, construction activities for the proposed project may result in temporary increases in noise levels in the area. While, the project would not result in the any long-term sources of stationary noise, construction activities may substantially increase ambient noise levels over existing levels. As described under item a), construction of the proposed project would be temporary and short-term, and would occur outside of the noise restricted hours outlined in the City of Roseville Noise Ordinance. Thus, impacts related to increase in temporary noise levels would be less-than-significant.
- e-f) No Impact – The project study area is not located within close proximity to an airport land use plan area and is not within the vicinity of a private airstrip. Thus the proposed project would not expose people residing or working in the project study area to excessive noise levels. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant noise impacts as identified above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.13 POPULATION AND HOUSING

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project study area falls within the North Central Roseville Specific Plan area, for which land use designations include: Open Space (OS); Community Commercial (CC); and Park/Recreation (PR). The North Central Roseville Specific Plan covers an area of approximately 1,550 acres of land and has a variety of land uses including residential neighborhoods, schools, parks, and commercial. According to the City of Roseville General Plan, the population total for the City of Roseville was 122,062 in 2012 (City of Roseville 2013). According to 2010 Census data, the number of households in the City was 45,019 (U.S. Census Bureau 2012).

DISCUSSION OF IMPACTS

- a) No Impact – The proposed project is intended to implement the Dry Creek Watershed Flood Control Plan adopted by Sacramento and Placer Counties and detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties. Development of the proposed project would not induce substantial population growth in the North Central Roseville Specific Plan area. Therefore, no impact would occur with project implementation.
- b-c) No Impact – The proposed project would not displace any existing homes or people and therefore, would not necessitate the construction of replacement housing elsewhere. As described in Section 3.9, Hydrology and Water Quality the proposed project would not place housing within a 100-year floodplain. Additionally, the project study area is currently designated open space by the City of Roseville and the proposed project would not change that designation. Therefore, no impact would occur with project implementation.

CONCLUSION

The proposed project would not result in significant impacts to population and/or housing as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.14 PUBLIC SERVICES

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- | | | | | |
|-----------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Fire protection? | ☐ | ☐ | ☐ | ☒ |
| b) Police protection? | ☐ | ☐ | ☐ | ☒ |
| c) Schools? | ☐ | ☐ | ☐ | ☒ |
| d) Parks? | ☐ | ☐ | ☐ | ☒ |
| e) Other public facilities? | ☐ | ☐ | ☐ | ☒ |

ENVIRONMENTAL SETTING

Fire and police protection in the project study area are provided by the City of Roseville. Schools in the project study area are within the Roseville City and Roseville Joint Union High School Districts. Several parks are located throughout the City, and recreational opportunities also include bike trails and open space, such as the Antelope Creek Trail, in the project study area.

DISCUSSION OF IMPACTS

a-b) No Impact - The proposed project would not increase demands for fire and/or police protection because it would not include new housing or business structures, or indirectly increase housing or businesses in the vicinity of the project study area. The proposed project would not change the type or intensity of land uses in the project study area; consequently, the demand for fire and police protection services under the proposed project would be the same as that currently provided. Therefore, the proposed project would not result in short-term or long-term impacts to emergency services.

c-e) No Impact – The proposed project would not include new housing. Therefore, it would not generate students or increase demands for school services or parks. In addition, the proposed project would not increase demands for other public facilities because it would not include new housing or business structures, or indirectly increase housing or businesses in the vicinity of the project study area. Lastly, the proposed project would not alter the current demand for public services, and no additional services or changes to existing services would be required. Therefore, no impact would occur to schools, parks, or other public facilities.

CONCLUSION

The proposed project would not have a significant impact on public services as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.15 RECREATION

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less-Than- Significant Impact	No Impact
Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

According to the City of Roseville General Plan, the Parks and Recreation and Open Space Elements are separate but closely linked. Lands designated for parks and recreation uses provide an important component of the overall open space network, and open space areas possess some recreational value even though not classified as traditional “active” park lands. In the project study area, recreational features include the Antelope Creek Trail, a multi-use trail intended for cyclists, pedestrians, and non-motorized vehicles.

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – In addition to flood control improvements, the proposed project includes improved public parking, access, and educational opportunities for the public along the existing multi-use recreational trail. Thus, the proposed improvements may encourage use of the trail; however, the proposed project is not expected to increase the use of the trail or any other existing neighborhood or regional parks or recreational facilities such that physical deterioration of the facility occurs. Impacts related to use of existing parks and recreational facilities would be less-than-significant.
- b) Less-than-Significant Impact – As described under item a) above, the proposed project includes improved public parking, access, and educational opportunities for the public along the existing multi-use recreational trail (Antelope Creek Trail). As stated in Chapter 2, on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive would be constructed as part of the proposed project. Approximately 10 stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. Therefore, impacts to recreational access resulting from implementation of the proposed project would be short-term and temporary. Affects of constructing the off-street parking area have been evaluated as part of the project in Section 3.4 Biological Resources. Therefore, although the proposed project would provide improvements for existing recreational features, the proposed project would not have an adverse physical effect on the environment and this impact would be less-than-significant.

CONCLUSION

The proposed project would not result in significant impacts to recreation resources as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.16 TRANSPORTATION/TRAFFIC

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

ENVIRONMENTAL SETTING

The project study area is generally bounded by Galleria Boulevard to the west, I-80 to the east, Atlantic Street to the south, and SR 65 to the north. Roseville Parkway crosses Antelope Creek just north of the proposed Weir 2. The project study area is located in the North Central Roseville Specific Plan area. Arterials identified in the plan for the project study area include Roseville Parkway and Galleria Boulevard, and the only collectors identified in the plan for the project study area is Antelope Creek Drive. The City's Level of Service (LOS) policy requires that 70 percent of City intersections function at a LOS 'C' (defined as stable operation/acceptable delays) or better during pm peak hour travel. According to the City of Roseville General Plan,

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

existing conditions for Galleria at Antelope Creek Drive are operating at LOS 'A', which is better than the standard of LOS 'C'.

Access to the proposed project is anticipated to be either from Galleria Boulevard to Antelope Creek Drive to an existing access road along the eastern portion of the project study area adjacent to existing railroad tracks, or from Galleria Boulevard to Berry Street (Antelope Creek Trail).

The City of Roseville has a single distinct public transit operator within its corporate boundaries, Roseville Transit, which is owned and operated by the City of Roseville. The City also has an extensive bike network, and develops Class I bike paths in parks, greenways, and open space/recreational/creek corridors; Antelope Creek Trail in the project study area is a Class I trail.

DISCUSSION OF IMPACTS

- a) **Less-than-Significant Impact** – As described in Chapter 2 Project Description, the proposed project would be constructed in two phases. The Upper Weir would be constructed in 2014 and the Lower Weir would be constructed at a later time based on funding. Each weir would take approximately four months to construct. Construction of the Upper Weir is anticipated to require 600 total truck trips on-site (to weir from borrow areas and back, approximately a 0.75 mile round trip) and 120 total one-way truck trips from off-site (from the Sacramento area, no more than 20 miles away) for materials delivery. Construction of the Lower Weir is anticipated to require 800 total truck trips on-site (to weir from borrow areas and back, approximately a 0.25 mile round trip) and 440 total one-way truck trips from off-site (from the Sacramento area) for materials delivery. Thus one-way truck trips from off-site would average 30 per month/1-2 per day for the Upper Weir and 110 per month/ 5 per day for the Lower Weir over each 4-month construction period. The construction labor force is estimated to average about 10-15 persons per weekday (Monday through Friday) over each 4-month construction period. Construction workers would be commuting daily to and from the project study area during each construction period. However, any increase in traffic resulting from employee commute trips would be short term and temporary. Therefore, the number of truck trips and employee trips associated with project construction activities would fall below the Institute of Traffic Engineers (ITE) thresholds of 50 trucks, 100 passenger vehicles, or an equivalent combination of vehicles per peak hour in the peak direction at an intersection.

The main sources of construction traffic would be within the project study area and would be associated with trucks moving within the project study area (off local streets). Borrow materials would come from the project study area to the extent feasible, or would be transported to the site as needed. At times, the presence of slow-moving trucks entering or exiting construction areas could pose hazards to other vehicles on Antelope Creek Drive and Berry Street. In addition, trucks and other vehicles could track mud and gravel onto the local roadways, potentially posing a driving hazard. However, the construction contractor would include signage at the construction access entrances on Antelope Creek Drive and Berry Street warning the general public of the construction area and the possibility of slow moving vehicles/construction traffic. The construction contractor would also sweep Antelope Creek Drive and Berry Street (water sweeper with reclaimed water recommended) at the end of each day if substantial volumes of soil material have been carried onto these roadways from the project area.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Therefore, the proposed project is not expected to generate significant vehicle trips, increase the volume to capacity ratio on local roads, or significantly increase the amount of vehicle miles traveled over existing conditions. Minor increases in traffic are expected during the construction period, but such increases would be short term and temporary. No long term increases in traffic would result from implementation of the proposed project. The proposed project would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system. This is considered a less-than-significant impact.

- b) Less-than-Significant Impact - As discussed above in item a), any increase in traffic resulting from construction of the proposed project would be short term and temporary. As described above, the construction labor force is estimated to average about 10-15 persons per weekday (Monday through Friday) over each 4-month construction period. Construction workers would be commuting daily to and from the project study area during each construction period. However, truck trips would not be anticipated to occur at the same time as employee commute trips, as employees must be present at the project site to operate construction equipment and receive deliveries of materials. In addition, truck traffic would not exceed the ITE threshold of 50 trucks per hour in the peak direction during the peak hour at any individual roadway intersection, nor would commute traffic and truck haul traffic combined exceed the equivalent threshold for a mix of passenger vehicles and trucks during a peak hour in a peak direction at a single intersection. Thus, commute and truck traffic would not affect peak hour travel at any individual roadway intersection in the vicinity of the project study area.

The City of Roseville General Plan established a Level of Service 'C' as the standard for roads within their jurisdiction. As described above, existing conditions for Galleria Boulevard at Antelope Creek Drive, one of the potential access points for the proposed project, are operating at LOS 'A'. Because the proposed project is not expected to generate significant vehicle trips and is of a short duration, the project is not expected to exceed either individually or cumulatively, the LOS standard established by the City. Therefore, it is not anticipated that the proposed project would add sufficient trips to local roadways to degrade levels of service below acceptable standards. This is considered a less-than-significant impact.

- c) No Impact - The proposed project is not anticipated to result in any changes in air traffic patterns, increase in air traffic levels, or a change in location that would result in substantial safety risks. Therefore, no impact would occur with project implementation.
- d) Less-than-Significant Impact – As described under item a) above, the occasional presence of slow-moving trucks entering or exiting construction areas could pose hazards to other vehicles on Antelope Creek Drive and Berry Street. In addition, trucks and other vehicles could track mud and gravel onto the local roadways, potentially posing a driving hazard. However, the construction contractor would include signage at the construction access entrances on Antelope Creek Drive and Berry Street warning the general public of the construction area and the possibility of slow moving vehicles/construction traffic. The construction contractor would also sweep Antelope Creek Drive and Berry Street (water sweeper with reclaimed water recommended) at the end of each day if substantial volumes of soil material have been carried onto these roadways from the project area.

The proposed project would not result in alterations to existing public roadways, and the safety of the public transportation network would not be affected. Project operation would

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

not result in any change in land uses, and therefore would not alter the compatibility of uses served by the public roadway network. Some modifications to the existing access roads may be necessary to facilitate access to the project area. However, modifications to existing access roads would be in accordance with adopted design requirements and would not be anticipated to increase hazards due to a design feature or incompatible uses. In addition, the re-aligned bike path would comply with local, state, and federal standards and would not result in safety concerns for bicyclists. Therefore, impacts related to hazards resulting from design features would be less-than-significant.

- e) Less-than-Significant Impact – As described above, construction-related traffic would be spread over the duration of the construction schedule and therefore, would be minimal on a daily basis. Construction of the proposed project would not result in short-term or long-term impacts to emergency access. Therefore, impacts related to emergency access would be less-than-significant.
- f) Less-than-Significant Impact - The proposed project includes improved public parking, access, and educational opportunities for the public along the existing bike path/ multi-use Antelope Creek Trail. As stated in Chapter 2, on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive would be constructed as part of the proposed project. Approximately 10 stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. Therefore, the on-street parking option may conflict with established City of Roseville standards requiring bike lanes along arterial and collector roadways and would instead require the sidewalk in this segment to be widened to accommodate pedestrians and bicycles per the City of Roseville standards.

During construction of the Phase 2 (Upper Weir) public access to the bike path/ multi-use Antelope Creek Trail would be closed and rerouted. A detour for the bike path would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify bicyclists using the bike path. Each of the streets associated with the detour have a paved and striped bike lane. Therefore, impacts to transportation access to the bike path/ multi-use Antelope Creek Trail resulting from implementation of the proposed project would be short-term and temporary. The proposed project would not affect any other public transportation methods or routes, nor would it conflict with any local plans or policies regarding public transportation. Therefore impacts related to public transit, bicycle, or pedestrian facilities would be less-than-significant.

CONCLUSION

The proposed project would not result in significant transportation or traffic impacts as described above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.17 UTILITIES AND SERVICE SYSTEMS

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

ENVIRONMENTAL SETTING

Water, wastewater, and solid waste disposal services in the project study area are provided by the City of Roseville. Roseville's water treatment plant was constructed in 1971, and most recently expanded in 2008, and is capable of treating up to 100 million gallons/day of raw water delivered from Folsom Lake. The City's water distribution system consists of water mains and pump stations, which provide sufficient water pressure to the higher elevations of the City and lift water into storage reservoirs. The collection of wastewater and delivery to the City's regional treatment plants is through a system of lift stations and collector and trunk lines, and is primarily a gravity flow system with wastewater flowing downhill to the treatment plants. The City of Roseville, along with the Cities of Lincoln and Rocklin, and Placer County are all part of the Western Placer Waste Management Authority that provides for solid waste management. Placer County oversees the operation of the Western Regional Sanitary Landfill.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

DISCUSSION OF IMPACTS

- a-e) No Impact –The proposed project would not require or result in the construction of new or expanded water or wastewater treatment facilities. As such, the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB. The proposed project would not require or result in the construction of new City stormwater drainage facilities or necessitate the expansion of existing facilities. The proposed project would not require potable water, thus no new or expanded water supplies or entitlements would be required as a result of the proposed project. The proposed project would not require service by wastewater treatment facilities and would not affect wastewater treatment capacity.
- f,g) No Impact - It is anticipated that the proposed project would generate excess materials during construction that would require disposal. Construction debris and excess material requiring disposal in a landfill would be hauled off-site to a suitable facility. Following completion of construction, the proposed project would not require landfill service and thus would not affect landfill capacity. The proposed project would comply with all relevant Federal, state, and local statutes and regulations related to the generation and disposal of solid waste.

CONCLUSION

The proposed project would not have a significant impact on utilities and service systems as noted above.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

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

DISCUSSION OF IMPACTS

- a) Less-than-Significant Impact – The proposed project would not degrade the quality of the environment. Implementation of mitigation measures identified in Section 3.4 Biological Resources, would ensure that project implementation would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of rare or endangered plants or animals. Mitigation measures identified in Section 3.5 Cultural Resources would ensure that the proposed project would not eliminate important examples of the major periods of California history or prehistory.
- b) No Impact – No cumulatively considerable impacts would occur with development of the proposed project. The duration of each construction period would be four months and no other projects are known to be planned for construction during the same time that would cause cumulatively significant impacts. No past, current, or future projects were identified in the project vicinity that, when added with project-related impacts, would result in cumulatively considerable impacts.
- c) No Impact – No project-related environmental effects were identified that would cause substantial adverse effects on human beings.

3 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

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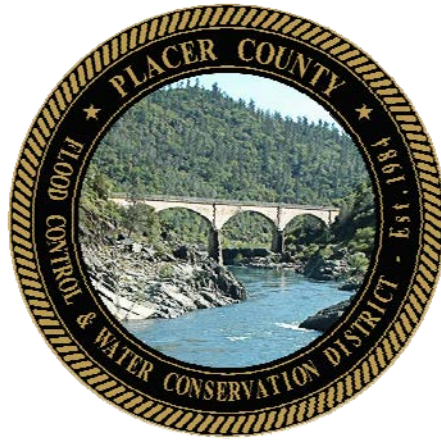
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Final Initial Study / Mitigated Negative Declaration

Antelope Creek Flood Control Project



Placer County Flood Control and Water Conservation District

State Clearinghouse # 2013112064

January 2014



2365 Iron Point Road, Suite 300
Folsom, CA 95630

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MITIGATED NEGATIVE DECLARATION

PROJECT: Antelope Creek Flood Control Project

LEAD AGENCY: Placer County Flood Control and Water Conservation District

PROJECT DESCRIPTION: The Placer County Flood Control and Water Conservation District (District) is proposing to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements on a segment of Antelope Creek. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The District is the lead agency under the California Environmental Quality Act (CEQA).

The Draft Initial Study/ Mitigated Negative Declaration (Draft IS/MND) was submitted to the State Clearinghouse on November 22, 2013 for a 30 day public review period. During the public review period the Draft IS/MND was made available for review on the District's Web site, <http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek.com>.

FINDINGS: An initial study (IS) was prepared to assess the proposed project's potential effects on the environment and the significance of those effects. Using the results of the IS, the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following proposed findings:

- ▶ The project would result in no impacts to agriculture and forestry resources, land use/ planning, mineral resources, population and housing, public services, and utilities and service systems.
- ▶ The project would result in less-than-significant impacts to aesthetics, air quality, geology/ soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/ water quality, noise, recreation, and transportation/ traffic.
- ▶ Although there are currently no nesting raptors that might be disturbed at the project site, mitigation is included to address the potential for raptors to nest at or near the project site prior to construction of the project.
- ▶ Although there are no known cultural resources that might be disturbed, mitigation is included to address the potential for discovering archaeological and/or human remains during the construction phase of the project.
- ▶ The project would not substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of a special-status species, or eliminate important examples of California history or prehistory.
- ▶ The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- ▶ The project would not have environmental effects that are individually limited but cumulatively considerable.
- ▶ The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

- ▶ No substantial evidence exists that the project would have a significant negative or adverse effect on the environment.
- ▶ The project incorporates all applicable mitigation measures, as listed below and described in the IS.

The following mitigation measures shall be implemented as part of the project to avoid or minimize potential environmental impacts. Implementation of these mitigation measures would reduce the potential environmental impacts of the proposed project to a less-than-significant level.

Mitigation Measure 1 - Implementation of Avoidance and Minimization Measures for Elderberry Shrubs

Mitigation Measure 2 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Fish Species

Mitigation Measure 3 - Pre-construction Surveys for Swainson's Hawk and Establishment of Buffers, if Necessary

Mitigation Measure 4 - Pre-construction Surveys for Special-Status Bird Species and MBTA-Covered Migratory Birds

Mitigation Measure 5 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Special-Status Species and Sensitive Habitats

Mitigation Measure 6 - Implementation of Avoidance and Minimization Measures for Construction Related Impacts to Burrowing Owl

Mitigation Measure 7 - Implementation of City of Roseville Tree Preservation Ordinance

Mitigation Measure 8 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to State Sensitive Species Western Pond Turtle and Western Spadefoot

Mitigation Measure 9 - Implementation of Avoidance and Minimization Measures for Construction-Related Impacts to Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act and Section 1600 of the California Fish and Game Code.

Mitigation Measure 10 - Protection of Prehistoric or Historic Subsurface Cultural Resources

Mitigation Measure 11 - Protection of Human Remains

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ACRONYMS AND ABBREVIATIONS

CEQA	California Environmental Quality Act
cfs	cubic feet per second
CVFPB	Central Valley Flood Protection Board
CVRWQCB	Central Valley Regional Water Quality Control Board
DBH	diameter at breast height
District	Placer County Flood Control and Water Conservation District
IS/MND	Initial Study/ Mitigated Negative Declaration
NPDES	National Pollutant Discharge Elimination System
NOI	Notice of Intent
PRC	Public Resources Code
SR	State Route
U.S.	United States

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1 INTRODUCTION

The Placer County Flood Control and Water Conservation District (District) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) in compliance with the California Environmental Quality Act (CEQA) to address the environmental consequences of the proposed Antelope Creek Flood Control Project (proposed project) in the City of Roseville, Placer County, California. The proposed project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. The project proposes to construct two primary flood control elements, along with recreational and aquatic and riparian habitat restoration elements.

1.1 PURPOSE OF THIS DOCUMENT AND OVERVIEW OF THE DRAFT IS/MND PUBLIC REVIEW PROCESS

On November 22, 2013, the District distributed to public agencies and the general public the Draft IS/MND for the proposed project. The Draft IS/MND was prepared on behalf of the District in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes (Public Resources Code [PRC] Sections 21000 et seq.) and the State CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). The District is the lead agency under CEQA.

In accordance with the CEQA Statutes (PRC Section 21092) and Section 15072 of the State CEQA Guidelines, public notice of the Draft IS/MND and the beginning of the public review period was provided by the District through publication of an announcement in the Sacramento Bee on November 22, 2013. In accordance with Section 15105(b) of the State CEQA Guidelines, the District provided a 30-day public review period for the Draft IS/MND, ending on December 23, 2013.

The public notice published in the Sacramento Bee included the notice of intent (NOI) to adopt a proposed mitigated negative declaration for the Antelope Creek Flood Control Project. The NOI included information on how to obtain copies of the Draft IS/MND and how to provide comments on the document. Additional notification methods of the availability of the Draft IS/MND were also used, including: emailing the NOI to interested parties and posting of the electronic version of the Draft IS/MND on the project website:

<http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek>.

The District received two comment letters on the Draft IS/MND during the 30-day public comment period. Both comment letters are addressed in this Final IS/MND. This Final IS/MND has been prepared to respond to the comments received by the District on the Draft IS/MND and to provide minor corrections and updates to the Draft IS/MND in response to comments received, in accordance with the State CEQA Guidelines.

This document consists of the following chapters:

- ▶ Chapter 1, "Introduction," describes the purpose of this Final IS/MND, provides an overview of the public review process, summarizes the project background and need, objectives, and provides an overview of the proposed project and the anticipated project timeline.
- ▶ Chapter 2, "Comments and Responses to Comments on the Draft IS/MND," reproduces the comment letters received by the District on the Draft IS/MND and provides responses to those comments.
- ▶ Chapter 3, "Corrections and Updates to the Draft IS/MND," lists minor modifications to the Draft IS/MND made in response to the comments received. These modifications do not change any of the impact conclusions stated in the Draft IS/MND.

- ▶ Chapter 4, “List of Preparers,” lists the individuals who contributed to the preparation of this Final IS/MND.
- ▶ Chapter 5, “References Cited,” lists the sources cited in this Final IS/MND.

This document and the Draft IS/MND together constitute the Final IS/MND for the ACFCP. The Draft IS/MND is hereby incorporated into this document by reference.

1.2 PROJECT BACKGROUND AND NEED

The Dry Creek watershed covers an area of 101.4 square miles in Placer and Sacramento Counties. The majority of the watershed (82 percent) is contained within the limits of Placer County. The headwaters of Dry Creek are located as follows: in the upper portions of the Loomis Basin; in the vicinity of Penryn and Newcastle; in unincorporated Placer County; in the Granite Bay area near Folsom Lake; and in Orangevale in Sacramento County. Antelope Creek and Clover Valley Creek form the northwest boundary of the watershed, and Secret Ravine and Miners Ravine comprise the northeast portion of the watershed. Antelope Creek and Miners Ravine, downstream from their confluences with Clover Valley Creek and Secret Ravine, respectively, merge near I-80 and Atlantic Street in Roseville to form Dry Creek. Dry Creek then flows west-southwest through Sacramento County where it empties into the Natomas East Main Drainage Canal, which flows into the American River.

The 2011 Updated Dry Creek Watershed Flood Control Plan (Plan) identifies a series of projects that would help manage flows within the Dry Creek Watershed area of the American River Basin. The primary purpose of the 2011 Updated Plan is to evaluate the hydrology of the watershed and provide recommendations that are both feasible and effective in reducing future flood damages and identifying ways to minimize impacts to development as a result of changed flood conditions. Of the recommended projects in the Plan, the Antelope Creek Flood Control Project near Atlantic Street would provide the greatest reduction in peak flows at Vernon Street in Roseville. As defined in the Plan, the Antelope Creek Flood Control Project near Atlantic Street (proposed project or project) includes a regional flood control project on Antelope Creek upstream of Atlantic Street and downstream of the SR 65 crossing. Antelope Creek is a perennial creek and major tributary of Dry Creek that drains the northeast portion of the Dry Creek Watershed.

As proposed in the Plan, the project would involve the design and construction of two on-channel weirs along an existing open space-protected reach of the creek. The project would meet multiple planning objectives by: improving flood protection and reducing potential for flood damages in previously impacted areas of downtown Roseville and unincorporated areas of Placer County; improving water quality downstream of the project area; enhancing the existing riparian corridor and habitats; and, improving an existing public recreation corridor.

More specifically, the proposed project would:

- Reduce peak flood flows over a wide range of flood events,
- Enrich existing aquatic and riparian corridor ecosystems through habitat restoration,
- Potentially improve water quality through groundwater recharge and natural treatment of temporarily stored flood waters within the floodplain, and
- Enhance recreational opportunities within the floodplain of Antelope Creek, including the Antelope Creek Class 1 Bike Path and Recreational trail.

1.3 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT AND OBJECTIVES

The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Secondary objectives of the project include:

- Improving access at two existing recreational trailheads with new parking options, and
- Restoring aquatic and riparian habitat along Antelope Creek. Key goals for the restoration components include:
 - o Restoring sections of the creek channel and improving floodplain connectivity;
 - o Improving habitat values;
 - o Avoiding or minimizing impacts to large trees and sensitive environmental areas;
 - o Removing invasive and non-native plant species; and,
 - o Ensuring the stream channel remains naturally stable and fish passage is maintained and enhanced.

The recreational and restoration components of the project would provide “beneficial impacts” in the project area and to the environment in general.

The project includes two primary flood control elements along with recreational and aquatic and riparian habitat restoration elements. An overview of these project elements is provided below.

Flood Control: The proposed flood control elements would be constructed in two phases and include two weir structures. Phase 1 (Lower Weir) would be constructed upstream from the UPRR crossing just north of Atlantic Street. Phase 2 (Upper Weir) would be constructed where the multi-purpose recreation trail crosses Antelope Creek, just downstream of the East Roseville Parkway Overcrossing. Figure 2-2 of the Draft IS/MND shows the project study area and the project impact areas, including the Phase 1 and Phase 2 weir locations.

Both weirs would include culvert outlet design options that provide a natural streambed bottom. At the Phase 2 (Upper Weir) location, the project would provide a significant benefit to fish by removing existing fish passage barriers to enhance fish passage and allow fish to pass during low flows. Both weirs would be designed to pass low flows without restriction, preserve available storage for peak flood conditions, restrict discharge during the peak of a storm, increase upstream 100-year flood levels by less than five feet, and to overtop at 100-year flood conditions. The proposed weir would also detain flood flows for a short duration to delay the local peak discharge by approximately an hour. Designing the weirs to detain flood flows for even a short duration would significantly reduce the contribution of Antelope Creek discharges to the downstream peak flows on Dry Creek at Vernon Street in Roseville by as much as 800 cubic feet per second (cfs).

The proposed project configuration would cause 100-year water surface elevations to increase upstream from the weirs; this rise in water surface could reduce the area available for development on some private properties. However, the weir designs would limit this vertical increase in the 100-year base flood elevations to a maximum of less than five feet in the immediate upstream vicinity of both weirs. To minimize the effect of the rise in water surface elevation on these minimal areas, the District could either obtain flood easements from property owners to offset the effects of water being temporarily detained on these properties during flood events or place fill in a manner so as to maintain the land area available for development. The District is working with the property owners of the potentially affected properties to determine the most appropriate way to remedy impacts from this change in water surface elevation. In addition, one automated ALERT-type stream level and

precipitation gauge would be installed in the project study area. This gauge and an existing gauge near Antelope Creek Drive would help monitor the project's effectiveness over the long-term.

The project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event and these wells would remain subject to inundation as a result of the proposed project. In addition, no new monitoring wells would be subject to inundation as a result of the proposed project. The existing configuration of these monitoring wells is such that temporary inundation does not damage the wells or probes, or hamper the use of landfill facilities when the flooding event has ended. Further, the current protective features of these facilities are such that temporary flooding is not expected to damage the well or probe. Current sampling frequencies allow ample time for storm waters to recede and normal conditions to return prior to a sampling event. Therefore, no modifications to the existing monitoring wells would be necessary.

Recreation: The proposed recreational element of the project includes improving access to two existing trailheads by providing on-street parking between the trailheads along Antelope Creek Drive or off-street parking adjacent to the trail on the southside of Antelope Creek Drive. Approximately ten stalls would be provided under either parking option. On-street parallel parking stalls would be provided in the existing City right-of way and bike lane and would involve removing and restriping the existing bike lane, which would redirect bicyclists onto the sidewalk in this segment. The off-street parking option would be provided within a City owned parcel adjacent to the trail and would not involve any changes to the bike lane along Antelope Creek Drive. During construction of the Phase 2 (Upper Weir), public access to the multi-use trail would be closed and rerouted. A detour for the trail would be established along Antelope Creek Drive, Creekside Ridge Drive, East Roseville Parkway, and Galleria Blvd. prior to construction and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system. Each of the streets associated with the detour have a paved and striped bike lane along with sidewalks. Section 3.15 Recreation and Section 3.16 Transportation/Traffic of the Draft IS/MND provide a full analysis of potential construction-related recreation and bicycle transportation impacts. In addition, an interpretive exhibit would be installed in the project study area to help educate the public on the project as they utilize the existing multi-purpose trail system. The proposed recreational elements would be consistent with the Dry Creek Greenway Regional Vision Plan (Placer County 2004).

Aquatic and Riparian Habitat Restoration: As part of the proposed project, portions of the existing stream channel would be restored to provide enhanced habitat for anadromous (migratory) fish species. The proposed aquatic and riparian habitat restoration components would follow CDFW California Salmonid Stream Habitat Restoration Manual and the U.S. Department of Agriculture Natural Resources Conservation Service's Stream Corridor Restoration Principles, Processes and Practices. Aquatic and riparian habitat restoration areas would be located throughout the project study area and would include invasive species removal, stream corridor habitat improvements, fish passage improvements, and oak woodland habitat restoration.

1.4 TIMELINE FOR PROJECT IMPLEMENTATION

The Placer County Flood Control and Water Conservation District Board of Directors are expected to make a decision on certifying the MND and approving the project at its meeting on January 13, 2014. Assuming that the project is approved, completion of project-level environmental compliance, detailed engineering design, equipment procurement, permitting, design review and approval, construction of the Phase 2 (Upper Weir) is anticipated to take place between June 2014 and October 2014. Based on funding, the Phase 1 (Lower Weir) would be constructed at a later time likely between 2014 and 2019. Sufficient detailed engineering to allow the start of construction is expected to be completed in May 2014. It is assumed that federal, state, and local permitting would be completed concurrently with detailed design activities. It is assumed that contractor selection would take place soon after the approval of final detailed design packages for the project.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

2.0 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

The District received two comment letters on the Draft IS/MND during the public comment period. The following table lists the commenters and the dates of the letters.

The comment letters received on the Draft IS/MND, and the responses to the significant environmental issues raised, follow the table. Also included at the end of this chapter is a letter from the State Clearinghouse. The letter acknowledges that the District has complied with the State Clearinghouse draft environmental document review requirements, and indicates that two state agencies (same as commenting agencies) submitted comments through the State Clearinghouse by the close of the comment period on December 23, 2013. Both comment letters received are addressed in this Final IS/MND.

List of Commenters/Letters	
Commenter	Date of Letter
Central Valley Flood Protection Board (CVFPB)	December 10, 2013
Central Valley Regional Water Quality Control Board (CVRWQCB)	December 16, 2013

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

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Comment Letter from the Central Valley Flood Protection Board

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682



December 10, 2013

Mr. Brian Keating
Placer County Flood Control And Water Conservation
3091 County Center Drive, Suite 220
Auburn, California 95603

Subject: Antelope Creek Flood Control Project
SCH Number: 2013112064
Document Type: Mitigated Negative Declaration

Dear Mr. Keating:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to, or within, Antelope Creek which is under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);
- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);
- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

Mr. Brian Keating
December 10, 2013
Page 2 of 2

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway. The project should include mitigation measures to avoid decreasing floodway channel capacity.

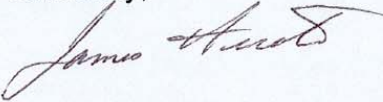
Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at <http://www.cvfpb.ca.gov/>. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at <http://gis.bam.water.ca.gov/bam/>.

If you have any questions, please contact me by phone at (916) 574-0651, or via e-mail at James.Herota@water.ca.gov.

Sincerely,



James Herota
Senior Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Response to Comment Letter from Central Valley Flood Protection Board

Thank you for your comment letter on the proposed project. The project will require a Central Valley Flood Protection Board permit and this requirement has been added to the list of project permits and approvals needed on page 2-17 of the Draft IS/MND (see Section 3 of this Final IS/MND). The District will work with the City of Roseville to process and obtain the Central Valley Flood Protection Board Permit per the Memorandum of Understanding that was established between the City of Roseville and the Board on December 10, 1976. The Memorandum of Understanding is included on the following pages.

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2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

FLOODWAY AGREEMENT BETWEEN THE RECLAMATION BOARD AND THE CITY OF ROSEVILLE

THIS AGREEMENT made and entered into this 10th day of December, 1976, by and between THE RECLAMATION BOARD OF THE STATE OF CALIFORNIA, hereinafter referred to as the "Board", and the CITY OF ROSEVILLE, hereinafter referred to as the "City".

RECITALS

1. There exists within the City of Roseville a portion of a waterway known as Dry Creek, and tributary streams thereto, known as Linda Creek, Kirby Creek, Strap Ravine, Miners Ravine, Secret Ravine, and Antelope Creek, all of which are hereinafter referred to as the "DRY CREEK SYSTEM".

2. The DRY CREEK SYSTEM is periodically subject to flooding, which flooding causes hazards to the health, safety, and welfare of the residents of CITY.

3. In view of the flood hazards of the DRY CREEK SYSTEM, CITY has zoned or will zone properties located in such districts with appropriate designations by Ordinances 1224 and 1227, which zoning limits or will limit the uses of such property in a manner best suited to potential flood hazards and in the best interests of the health, safety and welfare of the residents of CITY.

4. BOARD, pursuant to authority contained in the Water Code of the State of California, has responsibility of controlling encroachments in the waterway areas of the San Joaquin River, the Sacramento River, and all tributaries thereof, so as to provide for the free flow of water in such rivers and tributaries.

5. BOARD and CITY are interested in administering their various powers and duties with regard to the DRY CREEK SYSTEM in a manner designed to permit certain local controls over the DRY CREEK SYSTEM while providing BOARD the means thereby it may accomplish its responsibilities in connection therewith.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

WHEREFORE, in consideration of the mutual promises herein-
after set forth, BOARD and CITY do hereby agree as follows:

1. Geographical Limits of Board's Jurisdiction.

BOARD shall limit its jurisdiction to the area within the boundaries of the "Floodway District", set forth on the Official Zoning Map of CITY as "FW".

2. Existing Encroachments.

BOARD shall inventory all existing encroachments within the "Floodway District". All existing encroachments shall thereafter be authorized by a permit issued by CITY, unless either BOARD or CITY determines that any such encroachment may interfere with the free flow of water or constitute a material hazard likely to cause injury to persons or property during times of flood; in which case no such permit or a conditioned permit shall be issued by CITY. If such determination of interference or hazard is made by one party alone without the concurrence of the other, then the party making such determination shall cause the removal of the encroachment. If the parties concur in making such determination, then CITY shall cause the removal of the encroachment and BOARD shall share equally with CITY any expenses of causing such removal.

3. Applications for Permits to Use Land Within the "Floodway District".

All applications for permits to use land within the "Floodway District" will be received and processed by CITY in accordance with Ordinance No. 1224. CITY may request the advice of BOARD prior to taking action upon a permit application. BOARD shall not accept permit applications not issued by CITY.

4. Board Approval.

No permit issued by CITY for bridges, dams, utility crossings, excavations, levees, dikes, pipe, fills or other structures or facilities so designed as to obstruct or divert flood waters shall be effective until the expiration of ninety (90) days after

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

such permit draft has been mailed to BOARD for approval. Such submittal to BOARD will be accomplished by proper environmental documentation and by such supporting data as necessary to permit proper appraisal of the application. If BOARD takes no action on the permit draft within ninety (90) days, the permit shall be deemed approved.

5. City Inspection.

CITY will inspect all work done, under CITY permit to insure that all conditions of approval are met.

Once each year, BOARD and CITY shall inspect all structures and facilities constructed under permit, and CITY will notify the permit holder of any action necessary to comply with the provisions of the permit.

6. Modifications to "Floodway District".

No amendments to the boundaries of the "Floodway District", established by Ordinance No. 1227, or amendments to the activities or uses permitted therein by Ordinance No. 1224, shall be undertaken by CITY without concurrence by BOARD. In consulting with BOARD, CITY shall provide copies of any draft ordinances, studies, reports, data or other materials to BOARD so that BOARD is informed of the proposed amendments. Notice of such proposed amendments to change boundaries shall also be published and mailed as is required for zone boundary changes pursuant to the Zoning Ordinance of CITY.

7. Cancellation of Agreement.

CITY or BOARD may cancel this Agreement any time without penalty. In the event CITY or BOARD shall determine to cancel this Agreement, a public hearing shall first be held at a time and place acceptable to both parties. Notice of such hearing shall be given at least fourteen (14) days prior thereto by publishing notice of such hearing within a local newspaper of general circulation within CITY.

After such a public hearing, either or both of the parties hereto may give notice of intended cancellation of this

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Agreement, and this Agreement shall thereafter be terminated within thirty (30) days after the giving of such notice.

8. Authority.

Nothing herein shall be read to limit or impair the rights, duties, and responsibilities of the respective parties hereto, or any duly authorized agent or employee of the parties.

WHEREFORE, the parties hereto have executed this Agreement on the day and in the year first above written.

CITY OF ROSEVILLE

By Gregory C. Buge
Mayor

RECLAMATION BOARD, STATE OF CALIFORNIA

By [Signature]
President

By [Signature]
Secretary

ATTEST:

Pauline Brookman
City Clerk

APPROVED AS TO FORM:

Ralph W. Gates
Board Counsel

APPROVED AS TO FORM:

Dennis W. Gilman
City Attorney

APPROVED:

[Signature]
City Manager

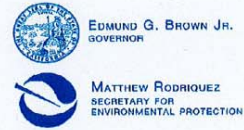
APPROVED:

[Signature]
Public Works Director

APPROVED:

[Signature]
Planning Director

Comment Letter from Central Valley Regional Water Quality Control Board



Central Valley Regional Water Quality Control Board

16 December 2013

Brian Keating
Placer County
Flood Control and Water Conservation District
3091 County Center Drive, Suite 220
Auburn, CA 95603

CERTIFIED MAIL
7012 2210 0002 1419 6233

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT MITIGATED NEGATIVE DECLARATION, ANTELOPE CREEK FLOOD CONTROL PROJECT, SCH NO. 2013112064, PLACER COUNTY

Pursuant to the State Clearinghouse's 25 November 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Mitigated Negative Declaration* for the Antelope Creek Flood Control Project, located in Placer County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

KARL E. LONGLEY ScD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER
11020 Sun Center Drive #200, Rancho Cordova, CA 95670 | www.waterboards.ca.gov/centralvalley



Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Antelope Creek Flood Control Project
Placer County

- 3 -

16 December 2013

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.


for Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

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2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Response to Comment Letter from the Central Valley Regional Water Quality Control Board

Thank you for your comment letter on the proposed project. As stated on page 2-17 of the Draft IS/MND the project will require an amendment to Waste Discharge Requirement No. R5-2004-0104 for the City of Roseville Landfill and a National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit from the Central Valley Regional Water Quality Control Board. The District will work with the Central Valley Regional Water Quality Control Board to process and obtain these permits.

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2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Letter from State Clearinghouse



Edmund G. Brown Jr.
Governor

STATE OF CALIFORNIA

Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Ken Alex
Director

December 24, 2013

Brian Keating
Placer County Flood Control And Water Conservation
3091 County Center Drive, Suite 220
Auburn, CA 95603

Subject: Antelope Creek Flood Control Project
SCH#: 2013112064

Dear Brian Keating:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 23, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency
1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

2 COMMENTS AND RESPONSES TO COMMENTS ON THE DRAFT IS/MND

Document Details Report State Clearinghouse Data Base

SCH# 2013112064
Project Title Antelope Creek Flood Control Project
Lead Agency Placer County Flood Control And Water Conservation

Type MND Mitigated Negative Declaration
Description The project proposes to construct two primary flood control element - an Upper Weir and a Lower Weir, along with recreational and aquatic and riparian habitat restoration elements. The project is situated along Antelope Creek between the SR 65/Roseville Bypass and Atlantic Street. The primary objective of the project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties.

Lead Agency Contact

Name Brian Keating
Agency Placer County Flood Control And Water Conservation
Phone 530 745 7592 **Fax**
email
Address 3091 County Center Drive, Suite 220
City Auburn **State** CA **Zip** 95603

Project Location

County Placer
City Roseville
Region
Lat / Long 38° 45' 45.7" N / 121° 15' 37.9" W
Cross Streets along Antelope Creek between SR65/Roseville Bypass and Atlantic St.
Parcel No. various
Township **Range** **Section** **Base**

Proximity to:

Highways SR 65 and I-80
Airports
Railways UPRR
Waterways Antelope Creek
Schools
Land Use LUD: Open Space, Community Commercial, and Parks and Recreation

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 3 N; Air Resources Board; State Water Resources Control Board, Division of Water Quality; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Central Valley Flood Protection Board

Date Received 11/22/2013 **Start of Review** 11/22/2013 **End of Review** 12/23/2013

3 CORRECTIONS AND UPDATES TO THE DRAFT IS/MND

3.0 CORRECTIONS AND UPDATES TO THE DRAFT IS/MND

This chapter lists editorial text corrections to the Draft IS/MND. The listed changes are being made in response to comments on the Draft IS/MND. These changes do not alter any of the analysis or conclusions presented in the Draft IS/MND. Text deletions are shown with ~~strikethrough~~, and additions are shown with double underline.

3.1 EDITORIAL CORRECTIONS AND UPDATES

The following are editorial corrections and updates to the text since the Draft IS/MND was published. Figures that were included in the Draft IS/MND are not reprinted in this Final IS/MND unless they have been revised or added.

2.4 PERMITS AND APPROVALS NEEDED

The following permits, approvals, and reviews would be required for project construction:

Agency	Permit/ Approval/ Review
Federal	
United States (U.S.) Army Corps of Engineers	- Clean Water Act, Section 404 Nationwide Permits #3 and #27 for filling or dredging Waters of the United States - U.S. Fish and Wildlife Service and National Marine Fisheries Service - Federal Endangered Species Act, Section 7 compliance - State Historic Preservation Officer - National Historic Preservation Act, Section 106 compliance
State	
California Department of Fish and Wildlife	Section 1601 of the California Department of Fish and Game Code - Streambed Alteration Agreement
California State Water Resources Control Board	Clean Water Act, Section 401 - Water Quality Certification
<u>Central Valley Flood Protection Board</u>	<u>Encroachment Permit (issued through City of Roseville Memorandum of Understanding)</u>
Central Valley Regional Water Quality Control Board	- Waste Discharge Requirement No. R5-2004-0104 Amendment for the City of Roseville Landfill - National Pollutant Discharge Elimination System (NPDES) - General Construction Stormwater Permit
Local	
City of Roseville	- Tree Permit - Coordination on project planning and consistency with local plans

Agency	Permit/ Approval/ Review
Placer County	• Solid Waste Facility Permit as part of the post-closure Maintenance Plan for the City of Roseville Landfill (administered through County Health Department/ Cal Recycle) • Coordination on project planning and consistency with local plans
Placer County Air Pollution Control District	Consultation for an Authority to Construct Permit

3.4 BIOLOGICAL RESOURCES

Mitigation Measure 7

Implementation of City of Roseville Tree Preservation Ordinance

To mitigate for impacts to mature oak trees in accordance with the City of Roseville Tree Preservation Ordinance, on-site mitigation, payment of in lieu fees (to the City of Roseville), or a combination of both options is proposed along with oak woodland restoration, which is included as part of the project. On-site mitigation plantings would be located within the proposed oak woodland restoration area identified on Figure 2-6. Mitigation plantings would be maintained and monitored in the same manner as the proposed restoration plantings described in Chapter 2. In-lieu mitigation fees would be deposited into either the native oak tree propagation fund or the non-native tree fund, or both funds as determined by the City of Roseville Planning Director.

A protected oak tree per the City of Roseville ordinance is a native oak tree equal to or greater than six inches diameter at breast height (DBH) measured as a total of a single trunk or multiple trunks. The City may condition any tree permit involving removal of a protected tree upon the replacement of trees in kind. The replacement requirement shall be calculated based upon an inch for an inch replacement of the DBH of the removed tree(s) where a 15 gallon tree shall replace one inch DBH of the removed tree; a 24-inch box tree shall replace two inches, and a 36-inch box tree shall replace three inches. The replacement trees shall have a combined diameter equivalent not less than the total diameter of the tree(s) removed. A minimum of 50 percent of the replacement requirement shall be met by native oaks. Up to 50 percent may be met by non-native species.

4.0 LIST OF PREPARERS

The Draft IS/MND and Final IS/MND for the project were prepared by HDR inc. in cooperation with the District. The following individuals contributed to this Final IS/MND:

- ▶ Linda Fisher, M.S., Environmental Task Lead
- ▶ Lee Frederiksen, P.E., Principal in Charge
- ▶ Paymon Fardanesh, P.E., Project Engineer
- ▶ Richard Dirks, P.E., Project Engineer
- ▶ Dawn LoBaugh, M.S., Quality Assurance/Quality Control
- ▶ Caitlin Nielsen, Document Production

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5.0 REFERENCES CITED

Placer County. 2004. Dry Creek Greenway Regional Vision Plan. Placer County Planning Department. Placer County, California. Final March 10, 2004.

**ADDENDUM TO THE ANTELOPE CREEK FLOOD CONTROL
PROJECT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION
PLACER COUNTY, CALIFORNIA**



**State Clearinghouse #
2013112064 (2004)**

Placer County Flood Control and Water Conservation District

September 2015



Date: September 14, 2015

To: Interested Parties

From: Placer County Flood Control and Water Conservation District

Subject: Addendum to the Antelope Creek Flood Control Project Initial Study/ Mitigated Negative Declaration

On November 22, 2013, the Placer County Flood Control and Water Conservation District (District) distributed to public agencies and the general public the Draft IS/MND for the Antelope Creek Flood Control Project. All comments received on the 2013 Draft IS/MND were considered and incorporated into the Final 2014 IS/MND. The 2013 Draft and 2014 Final IS/MND were prepared on behalf of the District in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes and the State CEQA Guidelines.

Minor changes to the project have occurred since adoption of the 2014 IS/MND. Changes in a project may be addressed by a supplement to the negative declaration or an addendum, depending on whether such changes result in new or substantially more severe changes in environmental impacts. Since adoption of the 2014 IS/MND, it has been determined that two new areas of rock slope protection are needed on the landfill. In addition, the slope protection material that was previously proposed downstream of the new culvert has changed from turf reinforced mat to rock. This material change resulted in additional changes to the location of restoration plantings downstream of the new culvert. Although these changes and additions to the project were not included in the 2014 IS/MND, the project goals and objectives to provide flood protection to the area have not changed, and the project area for the proposed additional rock slope protection was thoroughly analyzed and evaluated in the 2014 IS/MND. The potential impacts of the proposed changes and additions are analyzed in this Addendum. The District, as the lead agency for the project under CEQA, has determined that the proposed changes and additions to the project constitute minor changes and additions to the 2014 IS/MND and therefore, has prepared this Addendum in accordance with Section 15164 of the State CEQA Guidelines.

This Addendum may be reviewed at the District's website:

<http://www.placer.ca.gov/departments/works/floodcontrol/antelopecreek>. For questions regarding the Addendum and documents referenced in the IS/MND, contact Brian Keating, P.E., District Manager, Placer County Flood Control and Water Conservation District, 3091 County Center Drive, Suite 220, Auburn, CA 95603; Fax (530) 745-3531. Question may also be sent via e-mail to: BKeating@placer.ca.gov. For e-mailed questions, please include the project title in the subject line.

Sincerely,

E. Brian Keating, P.E.

Placer County Flood Control and Water Conservation
District

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

On November 22, 2013, the Placer County Flood Control and Water Conservation District (District) distributed to public agencies and the general public the Draft IS/MND for the Antelope Creek Flood Control Project. All comments received on the 2013 Draft IS/MND were considered and incorporated into the Final 2014 IS/MND. The 2013 Draft and 2014 Final IS/MND were prepared on behalf of the District in accordance with the requirements of the California Environmental Quality Act (CEQA) Statutes and the State CEQA Guidelines.

Under the Antelope Creek Flood Control Project IS/MND, the District proposed two primary flood control elements along with recreational and aquatic and riparian habitat restoration elements. The primary objective of the Antelope Creek Flood Control Project is to detain additional flood volume along the creek corridor, thereby reducing downstream peak discharges along the Dry Creek main stem through downtown Roseville and portions of Placer and Sacramento Counties. Secondary objectives of the project include improving access at two existing recreational trailheads with new parking options, and restoring aquatic and riparian habitat along Antelope Creek.

As is typical of conceptual planning and design processes, minor changes to the project have occurred since adoption of the 2014 IS/MND. The CEQA Guidelines state that changes in a project may be addressed by a supplement to the negative declaration or an addendum, depending on whether such changes result in new or substantially more severe changes in environmental impacts. Since adoption of the 2014 IS/MND, it has been determined that two new areas of rock slope protection are needed on the landfill. In addition, the slope protection material that was previously proposed downstream of the new culvert has changed from turf reinforced mat to rock. This material change resulted in additional changes to the location of restoration plantings downstream of the new culvert. Although these changes and additions to the project were not included in the 2014 IS/MND, the project goals and objectives to provide flood protection to the area have not changed, and the project area for the proposed additional rock slope protection areas was thoroughly analyzed and evaluated in the 2014 IS/MND. The potential impacts of the proposed changes and additions are analyzed in this Addendum. The District, as the lead agency for the project under CEQA, has determined that the proposed changes and additions to the project constitute minor changes and additions to the 2014 IS/MND and has prepared this Addendum in accordance with Section 15164 of the State CEQA Guidelines.

PROJECT LOCATION

The Antelope Creek Flood Control Project is located in the City of Roseville, in Placer County, California. The project is situated along Antelope Creek between the State Route (SR) 65/Roseville Bypass and Atlantic Street. Antelope Creek Drive crosses the project study area at grade and Roseville Parkway crosses over the project study area. The Creekside Business and Shopping Centers are west and up gradient of the project study area and a Union Pacific Railroad (UPRR) line and Interstate 80 (I-80) are east of the project area. A City of Roseville landfill, which is no longer in operation and has been officially closed, is located adjacent to the project study area. The Antelope Creek Class 1 Bike Path and Recreational trail runs along the creek through the length of the project study area.

The two new areas of rock slope protection on the landfill are located along the bike path, northeast of the Upper Weir analyzed in the 2014 IS/MND. Figure 1-1, Location and Vicinity Map, shows the location and vicinity of the proposed project. Figure 1-2, Project Study Area, shows the study area for the proposed project and additions, as well as the proposed staging and borrow areas, and access routes. Figure 1-3, Rock Slope Protection Areas Detail, shows the detailed design of the two new areas of rock slope protection. Figure 1-4, Planting and Restoration Plan, shows the revised planting plan for the proposed project.

1.2 REGULATORY CONTEXT

If, after adoption of a negative declaration (ND) or mitigated negative declaration (MND), altered conditions or changes or additions to a project occur, CEQA provides two mechanisms to address these changes: a subsequent negative declaration or an addendum to a negative declaration.

Section 15162 of the State CEQA Guidelines describes the conditions under which preparation of a subsequent negative declaration (or EIR) would be appropriate. When an ND or MND has been adopted (or an EIR has been certified) for a project, preparation of a subsequent ND or MND (or EIR) would be appropriate if the lead agency determines, on the basis of substantial evidence in light of the whole record, that one or more of the following conditions is met:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - (A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 of the State CEQA Guidelines states that a lead agency may prepare an addendum to an adopted negative declaration if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent negative declaration have occurred.



Figure 1-1 – Location and Vicinity Map

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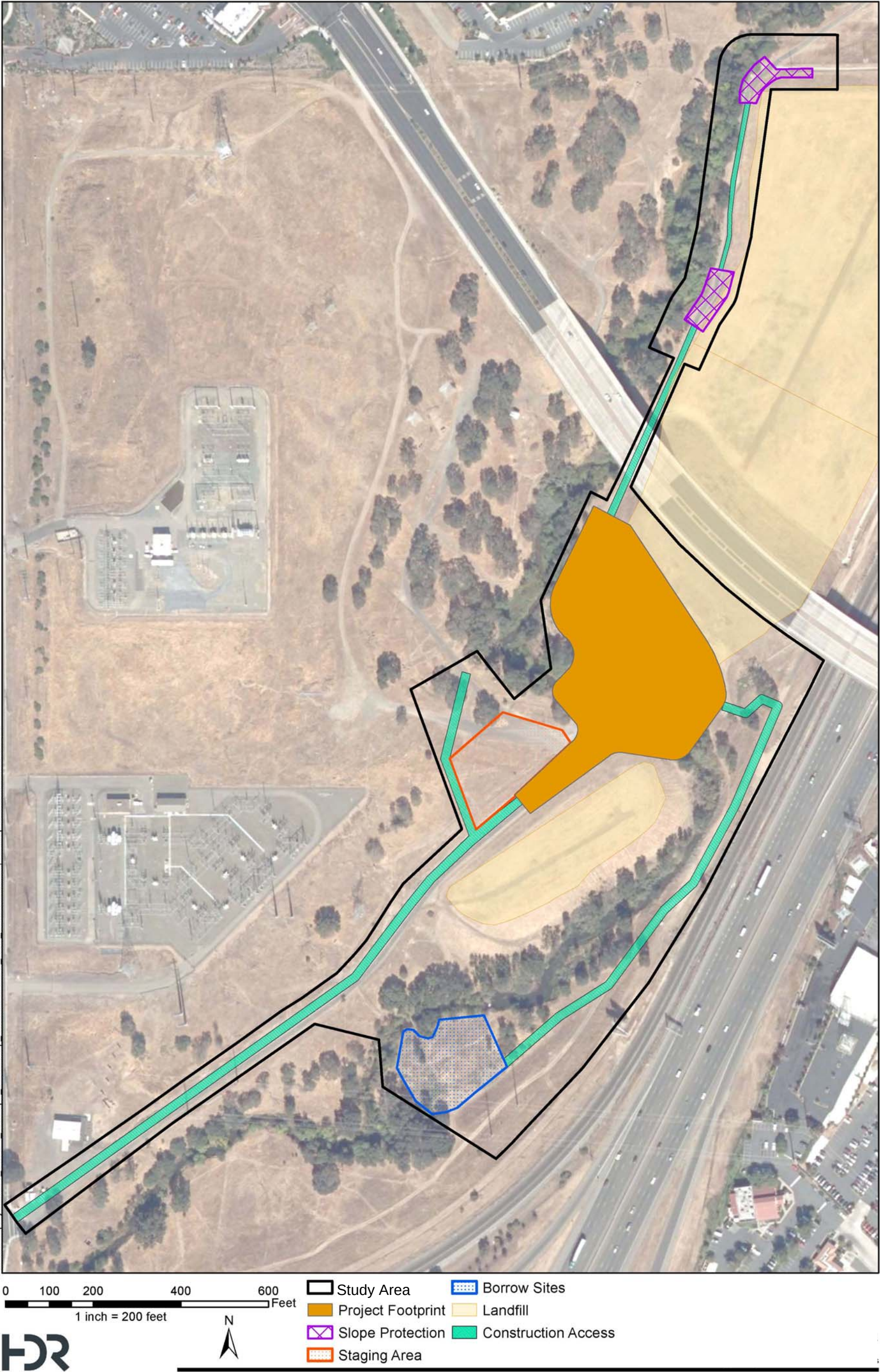
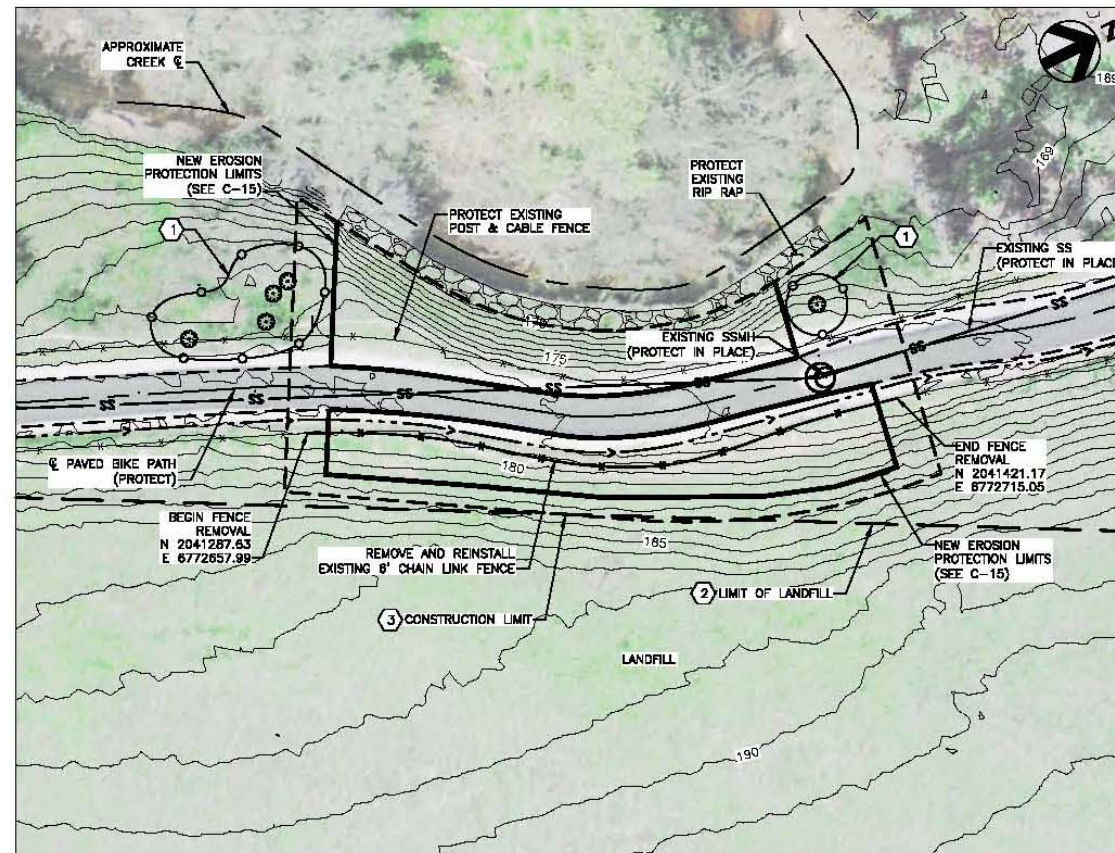


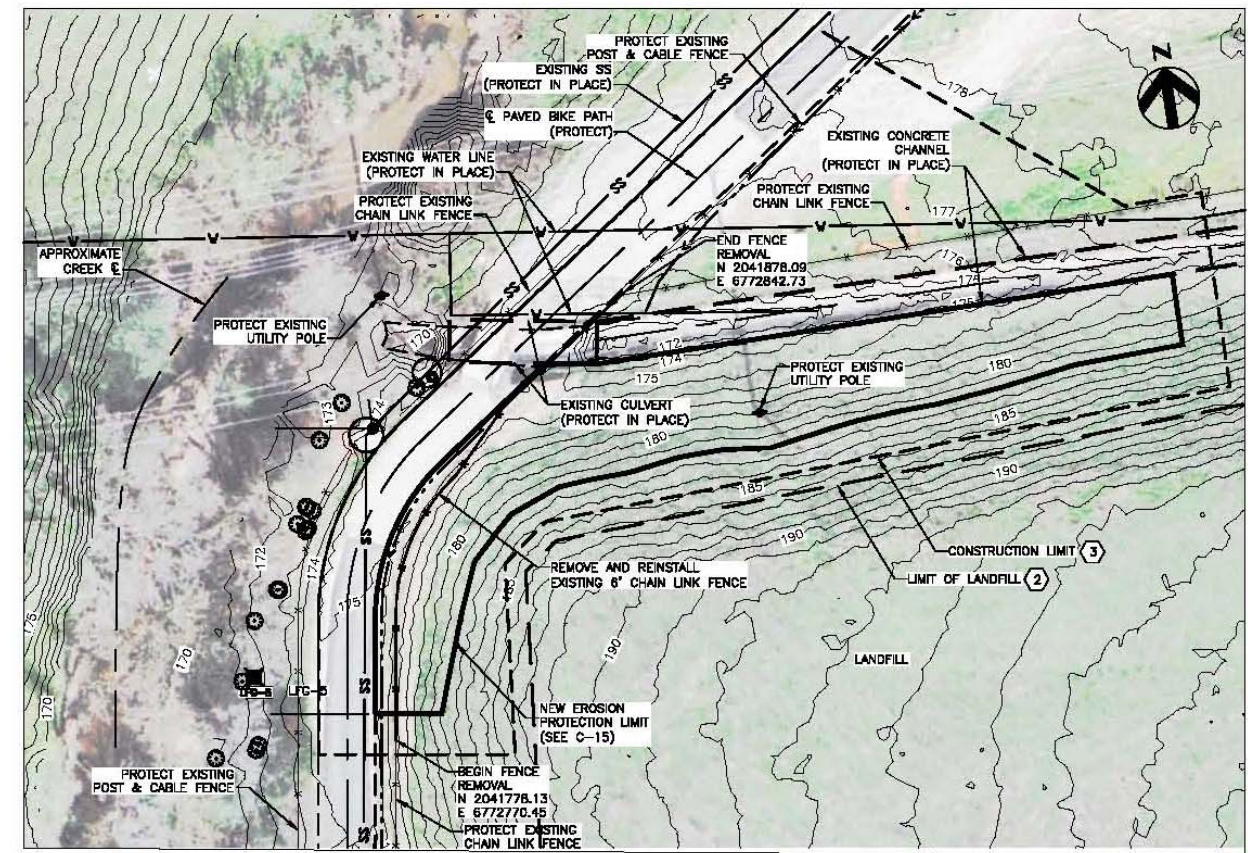
Figure 1-2 – Project Study Area

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ROCK SLOPE PROTECTION AREA A

1" = 20'



ROCK SLOPE PROTECTION AREA B

1" = 20'

NOTES:

- ① PROTECT IN PLACE AND PROVIDE PROTECTIVE FENCE. PROTECTIVE FENCE SHALL NOT BE LOCATED WITHIN DRIPLINE OF TREES.
- ② NO DEMOLITION, CLEARING OR TOPSOIL REMOVAL WITHIN LANDFILL LIMIT.
- ③ REMOVE AND DISPOSE OFFSITE ALL BRUSH/TREES, CONCRETE AND CULVERTS WITHIN THIS AREA AND 15 FEET BEYOND UNLESS NOTED OTHERWISE. DISTRICT SHALL PROVIDE APPROVAL OF TREES TO BE REMOVED IN FIELD BEFORE REMOVAL.

**100% DESIGN
NOT FOR CONSTRUCTION
AUGUST 2015**

20 10 0 20 40
HORIZ SCALE: 1"=20'

Figure 1-3 – Rock Slope Protection Areas Detail

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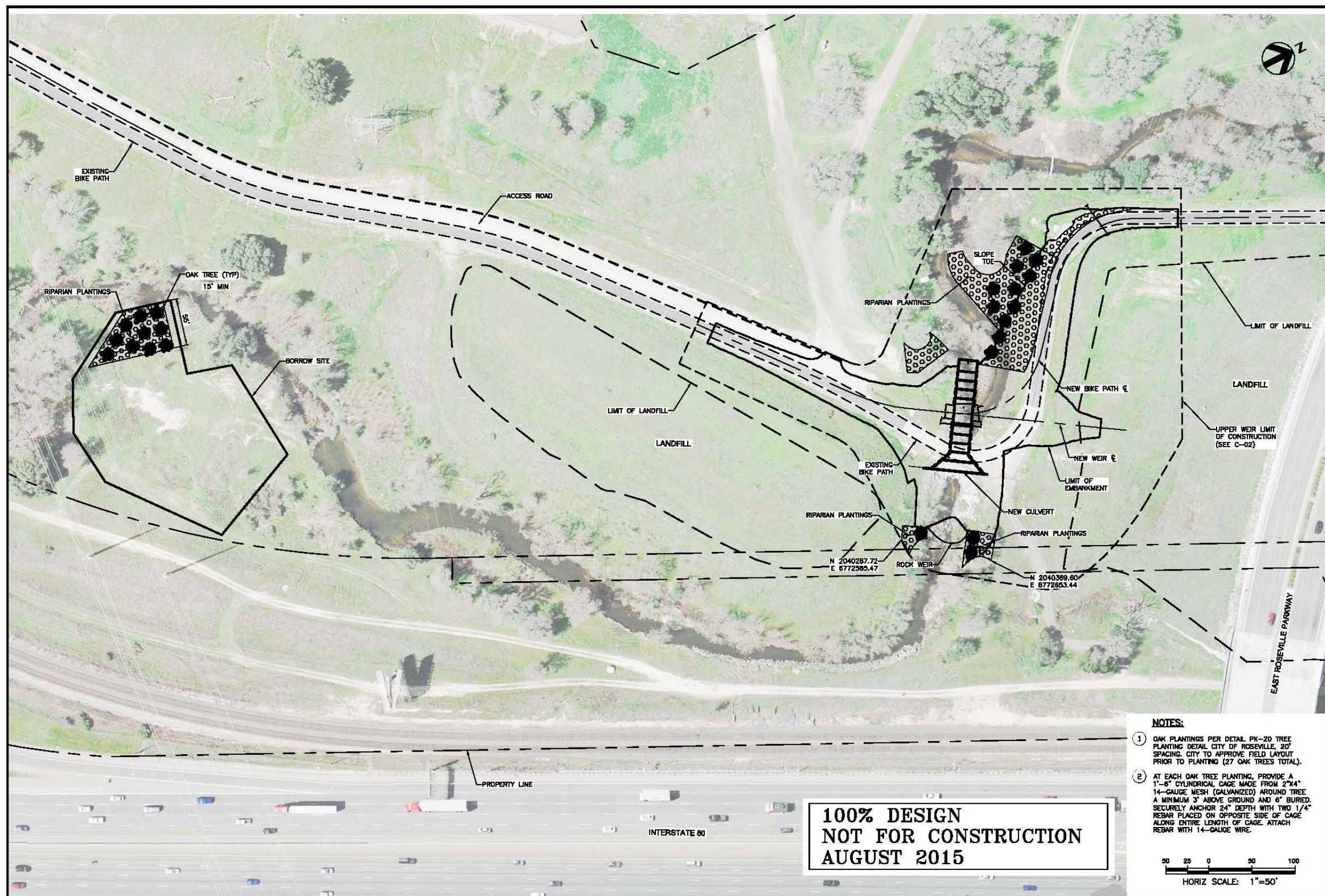


Figure 1-4 – Planting and Restoration Plan

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The analysis below will demonstrate that changes and additions to the 2014 IS/MND since adoption of the MND, respectively:

- would not result in any new significant environmental effects, and
- would not substantially increase the severity of previously identified effects.

In addition, no new information of substantial importance has arisen that shows that:

- the project would have new significant effects,
- the project would have substantially more severe effects,
- mitigation measures previously found to be infeasible would in fact be feasible, or
- mitigation measures that are considerably different from those analyzed in the IS/MND would substantially reduce one or more significant effects on the environment.

Because none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent negative declaration have occurred, an addendum to the 2014 IS/MND, consistent with Section 15164 of the State CEQA Guidelines, is the appropriate mechanism to document the minor additions to the Antelope Creek Flood Control Project. The purpose of this addendum, therefore, is to provide the additional CEQA analysis necessary to address the minor changes to the project and provide documentation for the record that these changes are consistent with the 2014 IS/MND.

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2 CHANGES TO THE PROJECT

The primary change to the Antelope Creek Flood Control Project consists of two new areas of rock slope protection on the landfill, as described in further detail below. The other changes to the project include the use of rock slope protection material rather than turf reinforced mat, which was previously proposed, downstream of the new culvert. This material change resulted in additional changes to the location of restoration plantings downstream of the new culvert, as shown on Figure 1-4. Although these project changes and the details of the rock slope protection areas are not included in the 2014 IS/MND, the project goals and objectives to provide flood protection to the area have not changed and the project area for the improvements was thoroughly analyzed and evaluated in the 2014 IS/MND.

In addition, due to funding, the District is only undertaking the Upper Weir portion of the project. The Phase 1 (Lower Weir) that was discussed in the 2014 IS/MND is no longer part of the project.

2.1 NEW AREAS OF ROCK SLOPE PROTECTION

Under the Antelope Creek Flood Control Project, and as analyzed in the 2014 IS/MND, the project would not detain water above the limits of waste at the adjacent landfill. Several of the existing groundwater monitoring and perimeter landfill gas monitoring wells are currently subjected to inundation during the 100-year storm event, and these wells would remain subject to inundation as a result of the project. However, no new monitoring wells would be subject to inundation as a result of the project, and no modifications to the existing monitoring wells were proposed.

As described above, since adoption of the 2014 IS/MND, two new areas of rock slope protection have been proposed along the limits of the landfill. Placement of protection at these locations is anticipated to protect the landfill from flows expected to occur from existing conditions up to the increased 100-year flood water surface elevation (WSE), as described in further detail below. As stated above, the City of Roseville (City) owns and maintains the adjacent closed Roseville Landfill, which is regulated by Waste Discharge Requirements (WDRs). According to the proposed project analyzed in the 2014 IS/MND, the Upper Weir will be constructed between Waste Management Unit (WMU) B and WMU C/D.

The proposed project, as analyzed in the 2014 IS/MND, has been designed to control and pass normal creek flows without restriction, detain flood water in the creek channel during 50 to 100-year storm events, and once the new 100-year flood WSE is exceeded, to discharge all additional water down the stream channel. The impact of the proposed project on the landfill site is estimated to be an increase in the 100-year flood WSE adjacent to the landfill site's WMU by up to 3.64 feet. However, the District has determined that the increased 100-year flood WSE would not reach the "limit of waste" of either Site WMU.

The Central Valley Regional Water Quality Control Board (CVRWQCB) reviewed the proposed project analyzed in the 2014 IS/MND, and in order to comply with the landfill site's WDRs and to prevent inundation or washout of the landfill's WMUs at the increased 100-year flood event elevations resulting from implementation of the proposed project, the CVRWQCB recommended the clean closure of the landfill site's WMU, or at least the portions that will be affected by the increased 100-year flood WSE, before the proposed Upper Weir is constructed. However, it was also recommended that should the

Upper Weir be constructed prior to or without clean closure, then additional stream channel protection should be provided along each section of the landfill previously fortified with rip rap and along each section of the landfill where flow velocities were calculated to increase. Therefore, the District proposes to install the two new areas of rock slope protection, as described above.

3 ENVIRONMENTAL ANALYSIS

This section provides the analysis to verify that: (1) the minor additions to the Antelope Creek Flood Control Project described in Chapter 2 of this document do not meet any of the criteria in Sections 15162 of the State CEQA Guidelines for preparation of a subsequent negative declaration and meet the criteria of 15164 of the State CEQA Guidelines for preparation of an addendum to the adopted mitigated negative declarations; and, (2) the analyses in the 2014 IS/MND and this Addendum are sufficient to meet CEQA requirements.

The evaluation below is provided in the form of a narrative discussion addressing each environmental issue area included in the 2014 IS/MND (e.g., land use, transportation/traffic, air quality).

3.1 ANALYSIS BY RESOURCE TOPIC

With the exception of Biological Resources, Cultural Resources, and Greenhouse Gas Emissions (which are discussed below in sections 3.1.1, 3.1.2, and 3.1.3 respectively), Table 3-1 provides a qualitative comparison of overall project impacts identified in the 2014 IS/MND versus the proposed changes and additions outlined in Section 2.0 for the new rock slope protection areas. The slope protection material change downstream of the new culvert discussed in Section 2.0 would not result in additional impacts because this area was already analyzed in the previous IS/MND, and therefore is not discussed further below.

Table 3-1. Qualitative Comparison of Overall Project Impacts Identified in the 2014 IS/MND versus the Proposed Changes and Additions

Resource Area	Potential Impacts Identified in the 2014 IS/MND	Adopted Avoidance, Minimization, and/or Mitigation Measures in the 2014 IS/MND	New (Current) Impact Value
Aesthetics	Temporary disruption to the existing visual quality of the area during construction due to presence of construction equipment.	None required	The proposed improvements would not result in any new or substantially greater impacts to aesthetics.
Agriculture and Forestry Resources	No impacts to agricultural and forestry resources identified.	None required	The proposed improvements would not result in any new or substantially greater impacts to farmland or forestry resources.
Air Quality	The project would cause temporary (construction-related) emissions; no permanent impacts.	Implement Placer County Air Pollution Control District's recommended emissions reduction measures.	The proposed improvements would not result in any new or substantially greater impacts to air quality.
Geology and Soils	Temporary construction impacts related to soil disturbance and erosion would occur.	Prepare a Stormwater Pollution Prevention Plan; and comply with other applicable erosion and sediment control/water quality regulations.	The proposed improvements would not result in any new or substantially greater impacts to geology and soils.
Hazards and Hazardous Materials	Temporary construction impacts related to use of hazardous substances (i.e. fuel, solvents, and oils) and risk of accidental release and exposure of people or structures to risk of wildland fire.	Prepare a Stormwater Pollution Prevention Plan; comply with other applicable water quality regulations; train employees in safe handling and storage of hazardous materials; and, clear areas slated for construction using spark-producing or intense heat-producing equipment.	The proposed improvements would not result in any new or substantially greater impacts to hazardous waste/materials.

Resource Area	Potential Impacts Identified in the 2014 IS/MND	Adopted Avoidance, Minimization, and/or Mitigation Measures in the 2014 IS/MND	New (Current) Impact Value
Hydrology and Water Quality	Temporary construction impacts related to soil disturbance and erosion, use of hazardous substances (i.e. fuel, solvents, and oils), and changes in drainage patterns that affect the potential for flooding.	Prepare a Stormwater Pollution Prevention Plan; comply with other applicable water quality regulations; and; train employees in safe handling and storage of hazardous materials.	The proposed improvements would not result in any new or substantially greater impacts to hydrology and water quality.
Land Use and Planning	The project is consistent with the City of Roseville General Plan. The project would not disrupt existing community character or cohesion.	None required	The proposed improvements would not result in any new or substantially greater impacts to land use.
Mineral Resources	The project would not result in the loss of availability of a known mineral resource or loss of availability of a locally important mineral resource recovery site.	None required	The proposed improvements would not result in any new or substantially greater impacts to mineral resources.
Noise	Temporary construction impacts related to periodic increases in noise levels in the project area.	Abide by the City of Roseville Noise Ordinance.	The proposed improvements would not result in any new or substantially greater impacts to noise.
Population and Housing	The project would not induce substantial growth in the North Roseville Specific Plan area, nor would it displace any existing homes or people.	None required.	The proposed improvements would not result in any new or substantially greater impacts to population and housing.
Public Services	No impacts to public services identified.	None required.	The proposed improvements would not result in any new or substantially greater impacts to public services.
Recreation	The project would result in the temporary closure/rerouting of Antelope Creek Trail during construction.	A detour for the Antelope Creek Trail would be established prior to construction, and signage would be posted at the trailhead and in the vicinity of the project study area to notify recreationists using the trail system.	The proposed improvements would not result in any new or substantially greater impacts to recreation.
Transportation/Traffic	The project would result in temporary (construction-related) roadway closures and impacts to traffic and transportation that could disrupt local circulation and result in limited emergency access.	Develop and implement a traffic safety plan; minimize the accumulation of mud and dirt on local roadways; assess damage to haul and access routes; and establish safe detours for temporary closure of Antelope Creek Trail.	The proposed improvements would not result in any new or substantially greater impacts to traffic and transportation.
Utilities and Service Systems	The project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. In addition, construction and operation of the project would not result in the long-term production of any solid wastes.	Comply with all relevant Federal, state, and local statutes and regulations related to the generation and disposal of solid waste during construction.	The proposed improvements would not result in any new or substantially greater impacts to utilities and service systems.

3.1.1 BIOLOGICAL RESOURCES

The focus of this section is to describe the current biological conditions at the project site and to evaluate whether the proposed rock slope protection, post adoption of the 2014 IS/MND, would result in any new or substantially different significant impacts to biological resources that were evaluated in the 2014 IS/MND.

EXISTING CONDITIONS SUMMARY

For the 2014 IS/MND, a project study area (study area) was defined for the purposes of documenting existing biological resources in the area and vicinity. The study area included the area that would be directly impacted by construction of the proposed Phase 1 (Lower Weir), Phase 2 (Upper Weir), aquatic habitat restoration, oak woodland and riparian restoration areas, plus a buffer deemed to be of sufficient size to encompass any areas of potential indirect impacts. The study area also included construction parking and access routes, staging areas, and borrow areas. The boundaries of the previous study area are shown on Figure 3-1 of the 2014 IS/MND, which includes habitat types.

The study area shown on Figure 1-2 has changed slightly from the study area analyzed in the 2014 IS/MND due to the addition of the two new areas of rock slope protection and the removal of the Phase 1 (Lower Weir). The project impact areas are also shown on Figure 1-2 and include all areas that are anticipated to be permanently or temporarily impacted by construction of the proposed project including the weir/culvert, rock slope protection, staging areas, borrow areas, restoration areas, and construction access routes.

HABITAT TYPES

The study area supports 11 distinct habitat types. Terrestrial plant communities/habitat types within the study area include non-native annual grassland, disturbed habitat, landfill, oak woodland, riparian oak woodland, urban/developed, and valley foothill riparian. Aquatic communities/habitat types within the study area include arundo-dominated (*Arundo donax*) riparian, fresh emergent wetland, perennial riverine, and unvegetated channel. A reconnaissance survey of the new areas of rock slope protection was conducted on June 17, 2015 and the revised study area still supports the same habitat types as described in the 2014 IS/MND.

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources addressed below are those that are afforded special protection through federal, state, and/or local laws and ordinances due to a variety of factors (summarized in the regulatory setting section). Plant and animal species are typically considered “sensitive” if they are determined to be rare or have a limited geographic range by the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), CDFW or other local agencies. Vegetation communities (habitats) are generally considered “sensitive” if: (a) they are considered rare within the region by various agencies including USFWS, CDFW, and other local agencies; (b) if they are known to support sensitive animal or plant species; and/or (c) they are known to serve as important wildlife corridors. Sensitive habitats are typically depleted throughout their known ranges, or are highly localized and/or fragmented. Existing site conditions were compiled from data gathered from various biological surveys conducted within the study area. Surveys for Waters of the U.S./wetlands, sensitive habitats and natural communities, native oak trees, and Valley elderberry longhorn beetles were conducted in 2012 and 2013.

SENSITIVE HABITATS

Habitats with a State (S) rank of 1-3 are considered sensitive by CDFW. The study area supports one sensitive habitat, valley foothill riparian, which has a similar composition to the S3-ranked *Quercus lobata* (Valley oak woodland) Alliance. Within the study area, valley oak is the dominant species comprising the valley foothill riparian habitat overstory. Poison oak (*Toxicodendron diversilobum*), blackberry (*Rubus sp.*), buttonbush (*Cephalanthus occidentalis*), and narrow leaf willow (*Salix exigua*) are common understory shrubs. The herbaceous layer features various grasses and sedges.

SPECIAL-STATUS PLANT SPECIES

Special-status plant species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-3 of the 2014 IS/MND. No special-status plants were observed during 2012 and 2013 general biological and jurisdictional wetland delineation surveys. A reconnaissance survey of the new areas of rock slope protection was conducted on June 17, 2015 and no special-status plants were observed.

SPECIAL-STATUS WILDLIFE SPECIES

Special-status wildlife species that were determined to have the potential to occur in the study area based on habitats present are listed in Table 3-4 of the 2014 IS/MND. Two sensitive species, western pond turtle (*Emys marmorata*) and Swainson's hawk (*Buteo swainsoni*), were observed within the study area during 2012 surveys. As stated previously, a reconnaissance survey of the new areas of rock slope protection was conducted on June 17, 2015, no new sensitive wildlife species were observed.

WATERS OF THE U.S., INCLUDING WETLANDS, AND WATERS OF THE STATE

A U.S. Army Corps of Engineers (USACE) jurisdictional delineation was conducted within the study area to identify potential Waters of the U.S., including wetlands. Potentially jurisdictional wetlands and other Waters of the U.S. were identified within the study area. USACE wetlands occur primarily as fresh emergent marsh located in small pockets along the creek banks. USACE other Waters of the U.S. occur primarily as the open water channel within Antelope Creek, which was mapped to the ordinary high water mark. Three ephemeral tributaries to Antelope Creek occur within the floodplain and are considered potential other Waters of the U.S. All USACE potentially jurisdictional wetlands and other Waters of the U.S. are also subject to jurisdiction as Regional Water Quality Control Board (RWQCB) waters of the State.

All USACE/RWQCB jurisdictional drainages in the study area are considered jurisdictional by CDFW. CDFW jurisdiction is similar to that of USACE jurisdiction, but also extends to the top of the bank and encompasses riparian vegetation when present. CDFW jurisdictional areas are defined as either "Riparian" or "Unvegetated Streambed." CDFW riparian include all areas within the study area that are associated with the Antelope Creek streambed and banks (USACE other Waters of the U.S. and wetlands) that are vegetated by riparian species. CDFW riparian extends further out from the Creek than USACE jurisdiction because it also encompasses the associated riparian habitat which may fall outside of the ordinary high water mark and/or three-parameter wetland criteria. CDFW unvegetated streambed includes the unvegetated portions of the Creek (e.g., open water) and Tributaries A – C.

HDR held a field verification meeting with USACE in April 2014 where USACE confirmed jurisdictional areas. Based on a review of this data, as well as a reconnaissance of the new rock slope protection areas, the additions to the project would be located outside of potentially jurisdictional areas.

COMPARATIVE ANALYSIS METHODS AND RESULTS

For the purpose of performing an evaluation of the additions to the study area, HDR conducted a review of special-status species with the potential to occur in the project site and be impacted by implementation of the proposed improvements. This review consisted of a database search, a site reconnaissance of the additions to the study area, and an evaluation of the potential for regionally-occurring special-status species identified in the database search to occur in the project site and be impacted by the proposed improvements. The results of this review were then compared to the results of

the biological resources evaluation in the 2014 IS/MND to determine if the identified impacts to biological resources sufficiently analyzed the potential impacts of the additions to the project and to determine if proposed mitigation was adequate to reduce impacts to a less-than-significant level.

Information on biological resources is based on a site reconnaissance conducted on June 17, 2015 and database searches of regionally-occurring special-status species maintained by the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS). The database search consisted of reviewing the CDFG's Natural Diversity Database (CNDDB) for reported occurrences of special-status species, the USFWS list of federal endangered and threatened species, and the CNPS list of rare plant species with potential to occur in the project study area.

Prior to conducting the site reconnaissance, the database search was conducted to compile a list of special-status species with the potential to occur in the project site or be adversely affected by the proposed improvements. The database search was conducted primarily for the purpose of identifying any special-status species with the potential to occur in the project site or immediate vicinity that would not have been evaluated in the 2014 IS/MND due to a variety of reasons (including a species recently attaining federal or state listing status, a recent change in the listing status of a species, or a newly reported occurrence of a special-status species in the project site or vicinity). During the site reconnaissance, an HDR biologist identified and characterized biological resources present by walking the area of additions to the project site and other adjacent areas.

Based on the database search, site reconnaissance, and evaluation of the potential for special-status species to occur in the project site, the additions to the project are not expected to:

- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrologic interruption or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and,
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Further, with implementation of the proposed mitigation measures identified in the 2014 IS/MND, potential impacts to sensitive species as a result of the additions to the project would be reduced to a less-than-significant level. No additional mitigation is necessary.

3.1.2 CULTURAL RESOURCES

The focus of this section is to describe the current cultural resource conditions at the project site and to evaluate whether the proposed rock slope protection, post adoption of the 2014 IS/MND, would result in

any new or substantially different significant impacts to cultural resources that were evaluated in the 2014 IS/MND.

During preparation of the 2014 IS/MND, HDR consulted with the Native American Heritage Commission (NAHC), performed a record search, and conducted a field survey, as described in further detail below.

CONSULTATION

HDR Engineering, Inc. (HDR) contacted the Native American Heritage Commission (NAHC) on June 18, 2012 requesting a search of their Sacred Lands File and a list of groups or individuals who may have knowledge of the project study area. On July 11, 2012, the NAHC responded that there is no known presence of Native American sacred sites in its files for the project study area. The NAHC also provided a list of tribes and individual contacts who may be interested in the proposed project. HDR contacted the listed Native American tribes and individual tribal members provided on the list and received one response from the United Auburn Indian Community (UAIC) of the Auburn Rancheria requesting a site visit of the project study area. HDR attended the site visit with the UAIC tribal representatives on August 28, 2012. No responses were received from the other tribes and individuals contacted regarding the proposed project.

RECORDS SEARCH

A record search of the project study area was conducted in June 2012 at the North Central Information Center (NCIC) of the California Historical Records Information System to identify known resources in the Project area. The record search indicates that there have been sixteen cultural resources studies conducted in the vicinity of the proposed project and within a quarter-mile radius. Three of the studies were conducted within the project study area. Two previously recorded cultural resources, P-31-1435 and P-31-1443, were also identified within the project study area. Other background research included reviews of reports and records relevant to the project study area, and historic period maps.

Additionally, the UAIC Tribal Preservation Officer noted that their records indicate that the village of Pitsokut was located within the project study area, though the presence or location of such a village has never been verified. HDR visited the UAIC Tribal Office on September 5, 2012 to review records held in their archives. No documentation or other information could be found in the UAIC records regarding the village of Pitsokut.

FIELD SURVEY AND RESULTS

On August 27-28, 2012, HDR conducted a pedestrian archaeological survey of the project study area in an effort to identify historical resources. All cultural resources discovered within or immediately adjacent to the survey area were documented according to current professional standards. Of the two previously recorded sites, the only evidence of site P-31-1443 was a single basalt handstone fragment identified at the location previously noted for the site. No other artifacts were observed at the site due to poor surface visibility. P-31-1435 could not be located as the site appears to be underwater in an artificially created wetland area. One new site was identified and recorded during the survey, P-31-5578; the remains of a roughly L-shaped rock alignment which is one course high and 33 feet long by 10 feet wide. No other artifacts or features were present at site P-31-5578.

Sites P-31-1435 nor P-31-1443 have not been formally evaluated for CRHR eligibility, and the two prehistoric sites would require additional testing to determine eligibility. For the purposes of the

proposed project, both sites would be treated as if they are eligible for listing on the CRHR. Site P-31-5578 was found to be ineligible for the CRHR as it did not meet any of the criteria for a historical resource.

CULTURAL RESOURCES SUMMARY

Based on the results of the consultation, records search, and field survey, two potential historical resources eligible for listing on the CRHR were identified north of the project study area. No other historical or archaeological resources were identified within the project study area. It is reasonable to conclude that the proposed project should not result in the alteration of or adverse physical or aesthetic effect to any other significant historical resources. Additionally, there are no known significant paleontological sites or deposits, and no known human burials or remains within the area of proposed disturbance. However, it is possible that previously unknown historical or archaeological resources, paleontological sites or deposits, or human burials or remains could be discovered during grading and excavation work associated with new construction, each of which are considered potentially significant impacts. Implementation of mitigation measures identified in the IS/MND would reduce these impacts to a less-than-significant level.

Based on a review of the detailed design for the proposed rock slope protection areas (Figure 1-3), the additional areas are located within the study area that was previously reviewed for the consultation, records search, and field survey described above. Consequently, the additions to the project would result in a less than significant impact to historical resources.

3.1.3 GREENHOUSE GAS EMISSIONS

In 2009 the CEQA Guidelines were amended due to Executive Order S-3-05, the passage of Assembly Bill 32 (AB 32), and further direction under Executive Order S-20-06. CEQA requires that lead agencies consider the reasonably foreseeable adverse environmental effects of projects they are considering for approval. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that the cumulative impacts of GHGs, even additions that are relatively small on a global basis, need to be considered. Because of the cumulative nature of the climate change problem, even relatively small contributions may be potentially considerable (and therefore, significant).

Section 15064.4 of the adopted CEQA Guidelines states:

“(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- 1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or,

2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- 1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project (CEQA 2009)."

At the time of the analysis conducted for the proposed project, neither the state nor the Placer County Air Pollution Control District have identified a significance threshold for GHG emissions generated by a proposed project, or a methodology for analyzing impacts related to GHG emissions or global climate change. Therefore, to make the determination whether the incremental impacts of the proposed project are "cumulatively considerable" the incremental impacts of the proposed project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

According to the City of Roseville General Plan, "at the local level, the goals, policies and implementation measures in Roseville's General Plan constitute an incremental step, in coordination with efforts on a larger scale, from state to international efforts, which will contribute to counteracting the effects of Climate Change, and reduce greenhouse gas emissions."

GHG emissions generated by the additions to the proposed project would be primarily in the form of CO₂ from construction equipment exhaust. Although emissions of other GHGs such as methane and nitrous oxide are important with respect to global climate change, the emissions levels of these GHGs for the sources associated with project construction are nominal compared with CO₂ emissions, even considering their higher global warming potential.

Emissions factors and calculation methods for estimating GHG emissions associated with infrastructure projects have not been formally adopted for use by the state or the PCAPCD. There would be no significant increase in the amount of electricity, water, or operational GHG emissions compared to current conditions as a result of implementation of the additions to the proposed project. The proposed project anticipates a construction period of approximately four months for Phase I and an additional four months for future Phase 2. During this time, a small net increase in GHG emissions would result from various construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy duty construction equipment, transport trucks hauling materials, and worker commute trips. Although any increase in GHG emissions would add to the quantity of emissions that

contribute to global climate change, it is noteworthy that emissions associated with construction of the proposed project would occur over a finite period of time. After completion of construction, all construction emissions would cease. Therefore, the additions to the proposed project would have a negligible contribution towards statewide GHG inventories and are not determined to be a considerable contribution to the cumulative global impact. In addition, the additions to the proposed project would not conflict with the objectives of AB 32 or any other applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Thus, project-related impacts as a result of GHG emissions would remain less-than-significant.

3.2 CONCLUSIONS

As described in the preceding sections, the proposed improvements evaluated in this Addendum would not change any of the impact conclusions of the 2014 IS/MND and would not result in new or substantially more severe environmental impacts.

Based on the analysis of the categories of environmental impacts evaluated above, implementing the proposed additions to the project described in this Addendum would result in none of the conditions described in Section 15162 of the State CEQA Guidelines calling for preparation of a subsequent negative declaration. In summary, there are no altered circumstances or new information of substantial importance since adoption of the 2014 IS/MND, and the proposed additions evaluated in this Addendum:

- would not result in any new significant environmental effects,
- would not substantially increase the severity of previously identified effects,
- would not result in mitigation measures or alternatives previously found to be infeasible becoming feasible, and
- would not result in availability/implementation of mitigation measures or alternatives that are considerably different from those analyzed in the previous document that would substantially reduce one or more significant effects on the environment.

These conclusions confirm that this Addendum to the 2014 IS/MND is the appropriate CEQA document to evaluate and record the minor additions described in this document.

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4 REFERENCES

California Environmental Quality Act. 2009. *Adopted Text of the CEQA Guidelines Amendments*. Available online: <<http://ceres.ca.gov/ceqa/guidelines/>>. Adopted December 30, 2009. Accessed May 19, 2015.



PLANNING COMMISSION

Title:

SVSP PARCELS DF-1 & DF-2 TENTATIVE SUBDIVISION MAP &
ADMINISTRATIVE PERMIT - 5501 MARKET STREET - FILE #PL14-0516

Meeting Date: 5/26/2016

Item #: 5.2.

ATTACHMENTS:**Description**

Staff Report - SVSP Parcels DF-1 & DF-2

ITEM V-B: TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT – 5501 MARKET STREET - SVSP PARCELS DF-1 & DF-2 – PL14-0516.

REQUEST

The applicant requests approval of a Tentative Subdivision Map within the Sierra Vista Specific Plan (SVSP) to allow the creation of 115 single-family lots, one (1) park lot, three (3) paseo lots, two (2) landscape lots, and three (3) open space lots, and an Administrative Permit to reallocate two (2) residential units (1 unit from Parcel DF-1, and 1 unit from Parcel DF-2) to Parcel DF-20. The proposed reallocation will not change the number of allocated dwelling units within the SVSP.

Applicant – NG Alexander Real Estate Development, Nick Alexander
Property Owner – DF Properties, Inc., Jeff Ronten

SUMMARY RECOMMENDATION

The Planning Division recommends the Planning Commission take the following actions:

- A. Adopt the three (3) findings of fact for the Administrative Permit;
- B. Approve the Administrative Permit;
- C. Adopt the three (3) findings of fact for the Tentative Subdivision Map; and
- D. Approve the Tentative Subdivision Map, subject to 108 conditions of approval.

SUMMARY OF OUTSTANDING ISSUES

This project was originally scheduled to be heard by the Planning Commission at its March 24, 2016 meeting. Following publishing of the hearing notice and the agenda, the applicant requested minor modifications to several conditions which necessitated additional staff evaluation; therefore, the project was removed from the March 24, 2016 agenda.

Staff has subsequently met with the applicant and reached agreement on several minor condition modifications and the introduction of a new condition. Conditions 14, 65, and 88 have been modified to ensure clarity for the applicant and the City. Condition 90 has been added, which documents the SVSP Backbone Infrastructure Fee and reimbursement process.

With these changes to the conditions of approval, there are no outstanding issues. The applicant is in agreement with the revised conditions and staff recommendations.

BACKGROUND

The Sierra Vista Specific Plan (SVSP) was adopted on May 5, 2010 (File #2007PL-044). The plan area includes 2,064 acres west of Fiddymment Road, north of Baseline Road (see Figure 1 – SVSP as viewed from Baseline & Fiddymment Roads). The SVSP established the land use and zoning for properties within the plan area.



The Specific Plan anticipated development of 8,679 single and multi-family units. In addition to residential land uses, the plan includes approximately 259 acres of Commercial, 106 acres of Park, 304 acres of Open Space, 56 acres of Schools and 40 acres of Urban Reserve land uses. At buildout, the Plan area is expected to accommodate approximately 20,045 residents and provide 9,000 jobs. An EIR was certified and a Mitigation Monitoring Program adopted with the SVSP. The Plan was amended in June 2012 to entitle land uses on the Westbrook property (File #2011PL-043). Additionally, Development Agreements with the property owners of the SVSP parcels (including Westbrook) and the City were also approved for the project. These agreements outline development obligations within the SVSP.

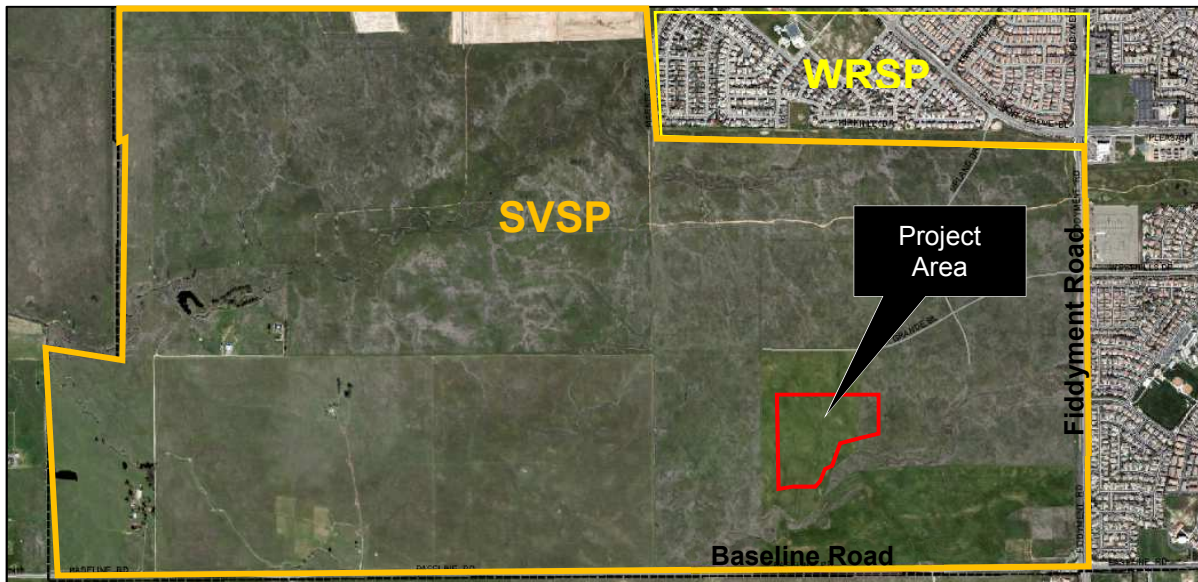
The requested entitlements for the DF Properties Subdivision Map would allow for development of approximately 27 acres in the southeast portion of the SVSP area (see Vicinity Map/Project Area below).

EXISTING SITE CONDITIONS AND ZONING

SITE INFORMATION

- A. Project Location:** 5501 Market Street
- B. Applicable Specific Plan:** Sierra Vista Specific Plan (SVSP)
- C. Roseville Coalition of Neighborhood Associations (RCONA):** A neighborhood association has not been established for this area. This is due to the fact that no residential subdivisions have been constructed in the SVSP. A notice of the project was sent to the RCONA Board of Directors.
- D. Total Acreage:** ±26.9 acres
- E. Topographical/Natural Features:** The project site is undeveloped grasslands with a gently rolling topography, as are the lands surrounding the site. An open space corridor of approximately 52 acres (Parcels DF-80, DF-81, JM-84 & JM-85) is located south and east of the project site. Adjacent and nearby properties are designated for urban development, including residential and commercial.

Vicinity Map/Project Area



EVALUATION

ADMINISTRATIVE PERMIT FOR UNIT TRANSFER/REALLOCATION

The Sierra Vista Specific Plan includes a residential density and unit count for each residential large lot, as listed in SVSP Table 4-2. The SVSP also recognized that as individual residential small-lot parcel maps are processed over time, a more detailed assessment of site, market, and other conditions will occur. It was anticipated that this process may result in the need to adjust (reduce or increase) the number of units assigned to some large-lot residential parcels (including CMU parcels) with an assigned unit allocation.

The SVSP (Chapter 10.8) includes a provision that allows the City to approve minor residential density adjustments and permit the transfer of residential units between large lot parcels, including Commercial Mixed Use (CMU) parcels by approval of an Administrative Permit. A minor change is one which meets the following criteria:

1. The transfer and receiving parcels are within the SVSP and subject to a development agreement;
2. The transfer of units does not result in a change to the land use designation, specifically, the transfer does not: (a) reduce the number of units from the transfer parcel below the minimum number of units allowed by the applicable land use designation; or (b) increase the number of units to the receiving parcel above the maximum number of units allowed by the applicable land use designation;
3. The transfer of units does not result in increased impacts beyond those identified in the Specific Plan EIR and does not preclude the ability of the parcels to conform to the applicable standards or regulations contained in the Specific Plan and related Development Standards and Design Guidelines;
4. The transfer of units does not adversely impact planned infrastructure, roadways, schools, or other public facilities, or fee programs and assessment districts;

5. The cumulative increase or decrease in units resulting from the minor density adjustment does not change by more than twenty-percent (20%) the units to either the transfer or receiving parcel, as established at the time of the original approval of the specific plan...;
6. HDR units designated as affordable units may be transferred administratively until such time that they are encumbered by an Affordable Housing Regulatory Agreement (or other form as approved by the City); and
7. For HDR parcels, unit transfers may be approved between HDR parcels administratively, provided that the resulting density of an affected HDR parcel does not fall below 18 units per acre.

Zoning Ordinance Section 19.78.060.A stipulates that three findings must be made in order to approve an Administrative Permit. The required findings for an Administrative Permit are listed below in ***bold italics*** text and are followed by an evaluation.

1. ***The proposed use or development is consistent with the City of Roseville General Plan and any applicable Specific Plan.***
2. ***The proposed use or development conforms with all applicable standards and requirements of the City of Roseville Zoning Ordinance.***
3. ***The location, size, design, and operating characteristics of the use or development is compatible with, and shall not adversely affect or be materially detrimental to, the health, safety, or welfare of persons residing or working in the area, or be detrimental or injurious to the public or private property or improvements.***

The proposed tentative subdivision map includes 115 single-family lots on the parcels designated for Low Density Residential (LDR), which is two (2) fewer units than the 117 single-family LDR lots allocated to SVSP Parcels DF-1 and DF-2. The applicant proposes to transfer the two unused LDR units to SVSP Parcel DF-20, a Medium Density Residential (MDR) parcel, as shown in Table 1 below. The proposed reallocation will not change the overall single-family dwelling unit allocation within the SVSP. All affected parcels are covered by the DF Properties, Inc. Development Agreement.

The proposed changes are reflected in Table 1 below.

Table 1: Summary of Proposed Density Transfers

Parcel (Land Use)	SVSP Allocated Units	Proposed Units	SVSP Acres (Gross)	Acres (Gross)	SVSP Density (du/ac)	Density (du/ac)	Diff. In units	% unit change
DF-1 (LDR)	101	100	20.30	20.30	5.0	5.0	-1	-1.0%
DF-2 (LDR)	16	15	3.18	3.20	5.0	4.7	-1	-6.25%
Subtotal LDR	117	115	23.48	23.50	4.9	4.89	-2	-1.71%
DF-20 (MDR)	113	115	15.52	14.5	7.3	8.0	+2	+1.77%
Subtotal MDR	113	115	15.52	14.5	7.3	8.0	+2	+1.77%
TOTAL	230	230	39	38	--	--	0	0%

Note: Density transfer table does not include Park, Open Space, Paseo, or Landscape parcels. Total project area as shown on the Small Lot Tentative Subdivision Map is ±26.9 acres.

The cumulative increase or decrease in units per lot is less than 20%, and the reallocation does not; a) reduce the number of units from the transfer parcels below the minimum unit density allowed by the applicable land use designation or; b) increase the number of units to the receiving parcels above the maximum unit density allowed by the applicable land use designation.

The tentative map development boundaries are consistent with the boundaries which were identified as part of the SVSP analysis, and thus the unit transfer will not result in increased impacts to trees or any other physical resource.

All units will remain within the same sewer and storm water drainage sheds. The units will rely on the same major roadway improvements, and the students generated by the project will remain within the same school service area. The proposed unit reallocation meets the criteria for a minor change and will not change residential density within the SVSP. Specifically, the unit transfer will not adversely impact planned infrastructure, roadways, schools or other public facilities, or SVSP fee programs and assessment districts. Accordingly, the transfer of units between large lot parcels will not adversely affect or be materially detrimental to the public health, safety or welfare, and will not be detrimental or injurious to public or private property or improvements.

TENTATIVE SUBDIVISION MAP

The applicant is processing a Tentative Subdivision Map to create 115 low density residential single family lots within two (2) residential parcels (SVSP Large Parcels DF-1 & DF-2) as referenced on Table 1 above. Additionally, the map will create one (1) park lot, three (3) paseo lots, two (2) landscape lots, and three (3) open space lots.

The two residential parcels proposed with the small lot Tentative Subdivision Map have a zoning designation of Small Lot Residential with Development Standards (RS/DS). The SVSP allows the developer to choose from either the minimum development standards established in the specific plan or those established in the development agreements for RS parcels. The proposed single-family lots meet or exceed the SVSP's minimum Development Standards for RS/DS zoned properties.

The SVSP includes design standards for residential subdivisions. The guidelines stress neighborhood connectivity between the subdivisions and pedestrian connectivity to the paseo and trail systems and to the open space, parks, and schools. Consistent with the design guidelines, the subdivisions' internal street system has been designed to allow residents to easily walk to nearby parks and schools.

Connectivity is also to be achieved through neighborhood access to a network of pedestrian paseos and trail systems. Consistent with the SVSP, a 60' paseo easement is shown along the east side of Market Street. The SVSP recommends that residential neighborhoods adjacent to the paseo provide a connection at least every 600 feet either via a street connection, sidewalk connection at a cul-de-sac, or a sidewalk within a "pedestrian way". As depicted on the Tentative Map, connections to the paseos are provided via street connections and sidewalk connections at the end of cul-de-sacs. In accordance with the SVSP requirement, there is a pedestrian connection at least every 600 feet.

The subdivision map also includes a grading plan and cut/fill exhibit for development of the project area. As part of the SVSP, a Master Grading and Drainage Plan was approved for the specific plan area. The grading and drainage plan anticipated run-off from the developed land to be routed into detention areas within the open space preserve area.

Runoff from the subdivision is consistent with the Drainage and Stormwater Master Plan prepared for the Sierra Vista Specific Plan, dated October 23, 2009 and amended March of 2015. The drain sheds

depicted in the study are in general conformance with the drainage study. The City's Engineering Division has reviewed this proposal and found that the drainage plan is acceptable.

The project includes mass grading plans for SVSP Parcels DF-1, DF-2, and DF-20 (see Exhibits D & E). Mass grading of the three parcels will result in balanced earthwork. The Engineering Division has determined that the proposed grading is consistent with the City's Grading Ordinance and Improvement Standards and the intent of the SVSP Master Grading and Drainage Plan.

The subdivisions will be located in an undeveloped area of the City. Improvements including the construction of major roadways, extension of utilities (electric, gas, water, wastewater), subdivision walls and fencing, project entry signage, and park sites will be required of the developer. The developer's obligations are outlined in the DF Properties, Inc. Development Agreement (DA). The development obligations are depicted on the proposed subdivision maps. The Utility and Infrastructure Phasing Plan (see Exhibit F) confirms that the phasing of improvements is consistent with the DA.

Findings

Section 18.06.180 of the City of Roseville Subdivision Ordinance requires that three findings be made in order to approve or conditionally approve Tentative Subdivision Maps. The three findings are listed below in ***bold italic text*** and are followed by an evaluation of the map in relation to each finding.

- 1. The size, design, character, grading, location, orientation, and configuration of lots, roads and all improvements for the tentative subdivision map are consistent with the density, uses, circulation and open space systems, applicable policies and standards of the General Plan or any applicable Specific Plan for the area, and the design standards of Title 18 (Subdivision Ordinance) of the Roseville Municipal Code.***

Consistent with the SVSP, the proposed subdivision configuration will create practical lots for the development of residential and public facility uses. Adequate access and circulation is provided to each large lot parcel to facilitate development of the small lots. At least two entrance points will be provided into each residential subdivision. All single-family lots are oriented with frontage on the public streets. The subdivision layout and street design was reviewed by the City's Engineering and Fire Departments to ensure there is adequate street widths for circulation and emergency response.

The densities of the two proposed residential large lots are consistent with the SVSP land use allocation. The RS/DS zoning allows for minimum lot widths of 45 feet wide with a minimum lot area of 4,500 square feet. The single-family residential lots proposed for parcels DF-1 and DF-2 exceed the SVSP's minimum standard for lot area and width. The overall average lot size (typical) proposed is 55' x 100' (5,500 square feet). The lots sizes and design of the subdivision are adequate to allow for development of detached single family units.

As conditioned, the proposed subdivisions are found to be consistent with the applicable policies of the General Plan, SVSP, and design standards of the Subdivision Ordinance. A detailed discussion follows on items that are either unique to the subdivision or are exceptions to the standards.

Village Node District: Parcel DF-1 is located in the Village Node District of the SVSP. The SVSP Design Guidelines recommend the development pattern within this district provide for a walkable neighborhood with good connectivity to the central core of the node (Parcels FD-41 & JM-40). Parcel DF-1 meets the guidelines of the Village Node District by providing multiple points of connection to Market Street and the Market Street Paseo. Market Street and the Market Street Paseo provide direct access to the central core of the Village Node District (Parcels FD-41 & JM-40). These connection points are provided via separated sidewalks on Street A and Street F, the two open cul-de-sacs and the open space trail.

Parcel DF-2 Park Frontage: The SVSP Design Guidelines encourage residential units to be oriented toward park areas. Such orientation allows greater visibility into the park for increased safety and security. The proposed Tentative Map shows Parcel DF-2 lots 47, 63, 64 and 84 with a side-on orientation to the park.

The applicant conducted alternative lotting studies that re-oriented the lots fronting the park; however, following evaluation of the alternative lot designs, it was determined that it was not practical to re-orient the lots to a front-on orientation.

The applicant has agreed to a map condition (see Condition 106) requiring architecture and fencing for these lots to allow for maximum visibility to the park (DF-50).

- 2. *The subdivision will result in lots, which can be used or built upon. The subdivision will not create lots which are impractical for improvement or use due to: the steepness of terrain or location of watercourses in the area; the size or shape of the lots or inadequate building area; inadequate frontage or access; or, some other physical condition of the area.***

As discussed above, the proposed parcels are of sufficient size and shape to accommodate future development. The proposed parcel configuration preserves the location of watercourses and does not create a physical condition that would be impractical for the proposed improvements.

- 3. *The design and density of the subdivision will not violate the existing requirements prescribed by the Regional Water Quality Control Board for the discharge of waste into the sewage system, Pursuant to Division 7 of the Water Code.***

The water quality impacts associated with the project and the expected discharge of waste for this project are consistent with what has been anticipated by the Sierra Vista Specific Plan EIR. In addition, the design of the sewer lines in the project area and treatment capacity at the City's sewage treatment plant have adequate conveyance and capacity to accommodate the future development on the parcels proposed by the Tentative Map.

CONCLUSION

As described in the staff report, the proposed project is well designed and meets the requirements of the Sierra Vista Specific Plan as well as City standards. For these reasons staff is supportive of the proposed project.

ENVIRONMENTAL DETERMINATION

The environmental effects of the proposed project were previously evaluated in the Sierra Vista Specific Plan EIR certified by the City Council on May 2, 2010 (SCH#2008032115) and identified in the associated Sierra Vista Specific Plan. The project involves minor adjustments to the adopted land use plan within the same project footprint therefore, construction of the DF-1 and DF-2 parcels is found to be within the scope of the project covered by the Sierra Vista Specific Plan Final EIR and is exempt from CEQA pursuant to Section 15182 as a residential project pursuant to a specific plan for which an EIR was certified. As discussed in the Specific Plan EIR, the EIR provides environmental analyses of community infrastructure and facilities, including residential subdivisions. Because the project is consistent with the Sierra Vista Specific Plan Final EIR and Specific Plan, no new effects are expected to occur and all applicable mitigation measures (see Attachment 1) from the Sierra Vista Specific Plan EIR will be implemented during the design and construction of the SVSP DF Properties, Inc. Maps. As such, no additional environmental documentation is required.

RECOMMENDATION

The Planning Division recommends that the Planning Commission take the following actions (A-D):

- A. Adopt the three (3) findings of fact as listed in the staff report for the **ADMINISTRATIVE PERMIT – TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT – 5501 MARKET STREET - SVSP PARCELS DF-1 & DF-2 – FILE #PL14-0516**; and
- B. Approve the **ADMINISTRATIVE PERMIT – TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT – 5501 MARKET STREET - SVSP PARCELS DF-1 & DF-2 – FILE #PL14-0516**; as shown in Exhibits A & B;
- C. Adopt the three findings of fact as stated in the staff report for the **TENTATIVE SUBDIVISION MAP – TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT – 5501 MARKET STREET - SVSP PARCELS DF-1 & DF-2 – FILE #PL14-0516**; and
- D. Approve the **TENTATIVE SUBDIVISION MAP – TENTATIVE SUBDIVISION MAP & ADMINISTRATIVE PERMIT – 5501 MARKET STREET - SVSP PARCELS DF-1 & DF-2 – FILE #PL14-0516**; subject to the 108 conditions listed below.

CONDITIONS OF APPROVAL –ADMINISTRATIVE PERMIT AND TENTATIVE SUBDIVISION MAP

- 1. The approval of a Tentative Map and/or tentative site plan does not constitute approval of proposed improvements as to size, design, materials, or location, unless specifically addressed in these conditions of approval. (Engineering)
- 2. The design and construction of all improvements shall conform to the Design and Construction Standards of the City of Roseville, or as modified by these conditions of approval, or as directed by the City Engineer. (Engineering)
- 3. The developer shall not commence with any on-site improvements until such time as grading, underground utility and/or improvement plans are approved and grading and/or encroachment permits are issued by the Development Services Department – Engineering Division. (Engineering)
- 4. The applicant shall pay City's actual costs for providing plan check, mapping, GIS, and inspection services. This may be a combination of staff costs and direct billing for contract professional services. (Engineering, Environmental Utilities, Finance)
- 5. Fulfillment of all backbone dedication requirements for Irrevocable offers of dedication and easements shall occur prior to the approval of any Improvement, Grading Plans, and/or recordation of any Final or Parcel Map as required by the Development Agreement between the City of Roseville and DF Properties, Inc. (Engineering)
- 6. Prior to the issuance of any improvement plans owner must have obtained issuance of a 404 permit as defined by the Development Agreement between the City of Roseville and DF Properties, Inc. (Engineering)
- 7. The applicant shall comply with applicable requirements for reimbursements to and from the West Roseville Specific Plan per Section 3.26 of the Development Agreement. (Engineering)

PRIOR TO ISSUANCE OF A GRADING PERMIT AND/OR IMPROVEMENT PLANS

8. Landscape Plans for all landscape corridors and all landscaped common areas shall be approved with the improvement plans. Landscaping shall be installed for Substantial Completion of the subdivision improvements. The landscape plan shall comply with the Sierra Vista Specific Plan and the City of Roseville Water Efficient Landscape Ordinance (RMC 19.67). (Planning, Engineering, Parks, Fire, Environmental Utilities)
9. Grading around the Open Space Preserve area shall be as shown on the tentative map or as approved in these conditions. (Planning)
10. CEQA mitigation measures relating to grading and construction of subdivision infrastructure, as identified in the SVSP EIR, shall be shown on Improvement Plans, as contained in Attachment 1. (Planning, Engineering)
11. The applicant shall submit to the Engineering Department the appropriate Army Corps of Engineers permit or clearance, the California Department of Fish and Game Stream Bed Alteration Agreement, and/or the Regional Water Quality Control Board Water Quality Certificate. (Planning)
12. Per the Sierra Vista Specific Plan (SVSP) Design Guidelines, Open Fencing (wrought iron style) is to be installed at the southern property lines of Lots 85, 94, and 95, not to impede pedestrian access to the Class 1 bike trail from the cul-de-sacs shown as Court 1 and Court 2 or Parcel DF-2 on Tentative Subdivision Map. (Planning)
13. The grading and improvement plans shall be designed in accordance with the City's Design and Construction Standards and shall reflect the following:
 - a. Street improvements including, but not limited to, curb, gutter, sidewalk, pavement, drainage systems, traffic striping, signing, medians and markings, etc. along all existing and proposed City streets, as required by Engineering.
 - b. Grading shall comply with the City grading ordinance. All erosion control shall be installed prior to the onset of wet weather. Erosion control is installed to minimize silt discharge from the project site. It is incumbent upon the applicant to ensure that necessary measures are taken to minimize silt discharge from the site.
 - c. A rough grading and/or underground only permit may be approved by the Engineering Division prior to approval of the improvement plans.
 - d. Access to the floodplain as required by Engineering and the Streets Divisions.
 - e. Standard access ramps shall be installed at all curb returns per City Standards. (Engineering)
14. For all work to be performed off-site, permission to enter and construct shall be obtained from the property owner, in the form of a notarized right-of-entry, unless work is within an existing irrevocable offer to dedicate (IOD) or temporary construction easement (TCE) for backbone infrastructure. Said notarized right-of-entry shall be provided to the Engineering Division prior to approval of any plans. This shall include, but not be limited to, the proposed over grading on Parcel DF-20 along the northern property boundary. If a right-of-entry cannot be obtained, a retaining wall will be required along the northern property line. (Engineering)
15. The applicant shall apply for and obtain an encroachment permit from the Engineering Division prior to any work conducted within the City right-of-way. (Engineering)

16. The applicant shall remove and reconstruct any existing damaged curb, gutter, and sidewalk along the property frontage. During site inspection Engineering will designate the exact areas to be reconstructed. (Engineering)
17. The intersection and traffic signal at Baseline Road/Fiddymment Road shall be improved prior to the first certificate of occupancy, per section 3.5.17 of the Development Agreement, unless previously completed by others. (Engineering)
18. The phasing of infrastructure shall be consistent with Sierra Vista Phasing Plan for parcels DF-1, DF-2 & DF-20, the Sierra Vista Specific Plan, and as defined by the Development Agreement. Phasing shall occur in a sequential order as defined on the Phasing Plan. (Engineering)
19. Bramblewood Road (Street "F") is bisected by the DF-1 and DF-20 large lot parcels and the JM-4 large lot parcel. As such, the cost of constructing improvements for Bramblewood Road, shall be apportioned based on a 50/50 split between the property owner of DF-1 and DF-20, and the property owner of JM-4. Each developer will build the curb & gutter and sidewalk along their frontage. Whichever of the properties develops first will construct a 24' pavement width and underground improvements, and subsequently will enter into a Developer/Developer Reimbursement Agreement with the City. The other property owner(s) will then be required to reimburse their share of the Bramblewood Road improvements, including the underground utilities and the 8' of pavement width, prior to improvement plan approval for their adjacent project. (Engineering)
20. The intersection of Market Street and Baseline Road shall be improved per one of the following options:
 - a. Construct the ultimate signalized intersection at Baseline Road, as identified in the Development Agreement, with two westbound lanes, two eastbound lanes, a standard left turn lane and a standard right turn lane. As detailed in the Development Agreement, the eligible Baseline Road improvements shall be reimbursed by the City/County Fee.
 - b. Widen the intersection to accommodate a standard left turn lane and a standard right turn lane to access Market Street. Traffic Signal installation may be deferred, but all costs associated with intersection improvements shall be responsibility of Developer. Those improvements that can be verified to the satisfaction of the City Engineer that they will not be "throw away" improvements when the ultimate intersection is constructed are subject to reimbursement pursuant to Section 3.5.2(d) of the Development Agreement. (Engineering)
21. All Lots/Parcels shall conform to Class 1 drainage, pursuant to the adopted City of Roseville Improvement Standards, except as shown on the tentative map or as approved in these conditions. (Engineering)
22. Prior to the approval of the improvement plans, it will be the project proponent's responsibility to pay the standard City Trench Cut Recovery Fee for any cuts within the City streets that are required for the installation of underground utilities. (Engineering)
23. A note shall be added to the grading plans that states:

*"Prior to the commencement of grading operations, the contractor shall identify the site where the **excess/borrow** earthen material shall be imported/deposited. If the **borrow/deposit** site is within the City of Roseville, the contractor shall produce a report issued by a geotechnical engineer to verify that the exported materials are suitable for the intended fill, and shall show proof of all approved grading plans. Haul routes to be used shall be specified."* (Engineering)

24. The sidewalk and landscaping on the east side of Market Street adjacent to Parcel CG-82 shall be constructed with this project with the adjoining section of Market Street, subject to reimbursement from the Sierra Vista Specific Plan Fee Program. (Engineering, Alternative Transportation)
25. Concurrent with the submittal of mass grading plans and/or improvement plans, the developer shall submit preliminary trail plans and a cost estimate for trail design and construction. Per the Development Agreement, if the City has sufficient funds the developer shall enter into a reimbursement agreement with the City for construction of the trail improvements. If sufficient funds are not available, the developer shall develop preliminary plans and conduct rough grading for the trail, with reimbursement from the City through either a reimbursement agreement or credit against the bike trail fee. The trail shall be designed in accordance with City standards and the following:
 - a. The trail connection with Market Street shall be designed to direct users to the crossing of Market Street.
 - b. Post and cable fence shall be provided as required by the U.S. Army Corps of Engineers wetland permit and City of Roseville Overarching Management Plan. Along Street A, post and cable fence is anticipated between the Class I trail and open space, but not between the Class I trail and sidewalk. (Alternative Transportation, Engineering).
26. The applicant shall dedicate all necessary rights-of-way for the widening of any streets required with this entitlement. A separate document shall be drafted for approval and acceptance by the City of Roseville, and recorded at the County Recorder's Office. (Engineering)
27. The grading plans for the site shall be accompanied with a shed map that defines that area tributary to this site. All drainage facilities shall be designed to accommodate the tributary flow. All storm drainage shall be collected and treated with Best Management Practices per the City's Stormwater Quality Design Manual, the approved Stormwater Quality Compliance Form and consistent with the LID requirements in the Sierra Vista Master Drainage Study. All stormwater shall be routed to the nearest existing storm drain stub of natural drainage course. (Engineering)
28. Prior to approval of improvement plans, drainage calculations must be submitted that are consistent with the Master Drainage Study for Sierra Vista or the Master Drainage Study shall be amended as necessary to accommodate any change in sheds. Detention and drainage swales shall also be consistent with the Master Drainage Study or the Master Drainage Study shall be amended to reflect any proposed changes. (Engineering)
29. Prior to approval of grading within the Open Space developer shall provide a plan that demonstrates that the "created wetlands" will provide enough storage volume to mitigate the 100 year peak flows as identified in the Drainage and Stormwater Master Plan. The design shall demonstrate that there are no adverse changes to the hydromorphological characteristics of the natural drainage course. Topographic data shall be gathered prior to and after the grading of open space to quantify the amount of storage that is being created for peak flow mitigation. Once the capacity of the storage is exceeded additional capacity will need to be created within the Open Space. (Engineering)
30. In accordance with the methods outlined in the SVSP Drainage and Stormwater Master Plan, analysis shall be submitted that; 1) quantifies project impacts to the two existing culverts on Baseline Road and the one existing culvert on Santucci Boulevard; and 2) identifies if the project triggers required upsizing of these existing culverts. (Engineering)
31. The drainage outfalls shall extend down to the receiving water and shall be constructed with adequate velocity attenuation devices. (Engineering)

32. The grading plans shall be accompanied with engineered structural calculations for all retaining walls greater than 4 feet in height. All retaining walls shall be of either split faced masonry units, keystone type construction, or cast in place concrete with fascia treatment. (Engineering)
33. The developer shall be responsible for any necessary relocation of signal interconnect cables that may require re-location as a result of the construction of turn lanes and/or driveways. (Engineering)
34. To ensure that the design for any necessary widening, construction, or modifications of Public Streets does not conflict with existing dry utilities generally located behind the curb and gutter, and prior to the approval of design drawings for those frontage improvements, the project proponent shall have the existing dry utilities pot holed for verification of location and depth. (Engineering)
35. Sight distances for all driveways/intersections shall be clearly shown on the improvement plans to verify that minimum standards are achieved. It will be the responsibility of the project proponent to provide appropriate landscaping and improvement plans, and to relocate and/or modify existing facilities as needed to meet these design objectives. (Engineering)
36. Improvement plans shall show the Preserve boundary and label it as a protected area. The Pre-Construction meeting shall address the presence of the Preserve, the sensitive habitats present and minimization of disturbance to the Preserve. During grading and construction the preserve area shall be avoided and shall not be used for parking, storage, or project staging. The contractor shall remove all trash blown into the preserve from adjacent construction on a daily basis. After construction is complete, the temporary fencing shall be removed from the preserve, along with all temporary erosion control measures (e.g., straw bales, straw waddles and stakes, silt fencing). (Engineering, Planning)
37. Prior to construction within any phase of the project, high visibility temporary construction fencing shall be installed along the parcel adjacent to the Preserve. Fencing shall be maintained daily until permanent fencing is installed, at which time the temporary fencing shall be removed from the project site. (Engineering, Planning)
38. With the exception of access required for maintenance and/or emergency vehicles, the project shall be designed to prevent vehicle access into the Preserve. Post and cable fencing or other improvements shall be utilized to meet this requirement. (Engineering, Planning)
39. Landscaping adjacent to the Preserve shall be California native, drought-tolerant groundcover, shrubs, plants and trees. (Planning, Parks)
40. Prior to the approval of the Improvement Plans, the project proponent shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP) to the City, as defined by the Regional Water Quality Control Board. (Engineering)
41. Prior to the issuance of a grading permit or approval of Improvement Plans, the grading plans shall clearly identify all existing water, sewer and recycled water utilities within the boundaries of the project (including adjoining public right of way). Existing utilities shall be identified in plan view and in profile view where grading activities will modify existing site elevations over top of or within 15 feet of the utility. Any utilities that could potentially be impacted by the project shall be clearly identified along with the proposed protection measures. The developer shall be responsible for taking measures and incurring costs associated with protecting the existing water, sewer and recycled water utilities to the satisfaction of the Environmental Utilities Director. (Environmental Utilities)
42. Water and sewer infrastructure shall be designed and constructed pursuant to the adopted City of Roseville Improvement Standards and Construction Standards and shall reflect the following:

- a. Sewer and water service laterals shall not be allowed off of water and sewer mains larger than 12 inches in diameter. (Environmental Utilities)
 - b. Utilities or permanent structures shall not be located within the area which would be disturbed by an open trench needed to expose sewer trunk mains deeper than 12' unless approved by Environmental Utilities in these conditions. The area needed to construct the trench is a sloped cone above the sewer main. The cone shall have 1:1 side slopes. (Environmental Utilities)
 - c. Water and sewer mains shall not exceed a depth of 12' below finished grade, unless authorized in these conditions. (Environmental Utilities)
 - d. All sewer manholes shall have all-weather 10-ton vehicular access unless authorized by these conditions. (Environmental Utilities)
43. Recycled water infrastructure shall be designed pursuant to the adopted City of Roseville Improvement Standards and the City of Roseville Construction Standards. The applicant shall pay all applicable recycled water fees. Easements shall be provided as necessary for recycled water infrastructure. (Environmental Utilities)
44. Each phase of construction will require a sewer outfall and two independent points of connection required for 12" looped water system. (Environmental Utilities)
45. Two independent points of connection are required for the water system per the Development Agreement (DA). For Phase 1, the City has agreed to a single point of connection to the subdivision from Market Street, extending past Street B or to the limit of the street construction, with the construction of a 12" water line in Street A to the Phase 1 boundary. For Phases 2 and 3, if water in Vista Grande does not exist all the way to the project, then the applicant is required to complete the construction of the 12" water line in Street A and construct a second point of connection in order to create two points of connection as outlined in the DA. This is contingent upon the construction of the 24" waterline along Baseline Road to Market Street. (Environmental Utilities)
46. Two independent points of connection are required for the water system per the DA agreement. If water in Baseline or Vista Grande does not exist all the way to this project, then the applicant is required to construct them. The City and applicant agree to explore potential alternative methods for obtaining 1 of the 2 points of connection. (Environmental Utilities)
47. If the recycled water system shown in Market Street as existing is not constructed at the time of this project, the recycled water for this project will need to be expanded to incorporate the recycled water charging station to the south or connection to the line in Vista Grande. (Environmental Utilities)
48. Any backflow preventers visible from the street shall be painted green to blend in with the surrounding landscaping. The backflow preventers shall be screened with landscaping and shall comply with the following criteria:
- a. There shall be a minimum clearance of four feet (4'), on all sides, from the backflow preventer to the landscaping.
 - b. For maintenance purposes, the landscaping shall be installed on a maximum of three sides and the plant material shall not have thorns.
 - c. The control valves and the water meter shall be physically unobstructed.

- d. The backflow preventer shall be covered with a green cover that will provide insulation. (Environmental Utilities)
- 49. A note shall be added to the Improvement Plans stating that all water backflow devices shall be tested and approved by the Environmental Utilities Department prior to the Notice of Completion for the improvements. (Environmental Utilities)
- 50. Fire hydrants shall be located as required by the Fire Department. The maximum distance between fire hydrants shall not exceed 500' on center. (Fire)
- 51. Minimum fire flow is 1,500 gallons per minute with 20 lbs. residual pressure. The fire flow and residual pressure may be increased, as determined by the Fire Marshall, where the project utility lines will serve non-residential uses. (Fire)
- 52. Framing construction cannot commence until access roads and public fire hydrants are approved by the Fire Department. (Fire)
- 53. If this project will be phased, the fire department requirements for access and circulation throughout shall be approved by the City for such proposal. Access road shall comply in accordance with the California Fire Code, 2013 with the City of Roseville's Amendments. A separate phasing plan shall be reviewed and approved by this department. (Fire)
- 54. Any facilities proposed for placement within public/electric utility easements shall be subject to review and approval by the Electric Department before any work commences in these areas. This includes, but is not limited to, landscaping, lighting, paving, signs, trees, walls, and structures of any type. (Electric)
- 55. All Electrical Department facilities, including street lights where applicable, shall be designed and built to the "City of Roseville Specifications for Residential Trenching". (Electric)
- 56. The design for electrical service for this project will begin when the Electric Department has received a full set of improvement plans for the project. (Electric)
- 57. All landscaping in areas containing electrical service equipment shall conform with the "Electric Department Landscape Design Requirements" as outlined in Section 7.00 of the Electric Department's "Specifications for Residential Trenching" (Electric)
- 58. No electric power is currently available to this project. Power shall be extended from off site to this project either by temporary high voltage overhead electric facilities, or by permanent underground high voltage electric facilities. Any extension of temporary or permanent off site high voltage facilities shall be the direct responsibility of the developer and shall be installed per an approved electric site utility design generated by the City of Roseville's electric department. (Electric)
- 59. Any and all required public utility easements across adjacent parcels for the extension of high voltage electric facilities shall be granted and recorded prior to installation of those high voltage electric facilities. All coordination and procurement of the required public utility easements shall be the direct responsibility of the developer and shall be per an approved electric site utility design generated by the City of Roseville electric department. (Electric)
- 60. Per the Sierra Vista Specific Plan and Development Agreement 3.11.3 an electric substation site shall be granted to the City of Roseville once 500 single family units, or the equal to in loading, has been permitted by the building department. (Electric)
- 61. Detached sidewalks may need to be attached at high voltage switchgear locations. (Electric)

62. Over-grading onto the adjacent park shall be prohibited. (Parks)
63. Drainage shall be installed on the project's property to collect increased run-off due to development. Drainage shall not daylight onto City property. (Parks)
64. Accent lighting at entry monuments shall be above-ground. In-ground lighting will not be accepted. (Parks)
65. Signage at entry monuments shall be monolithic and bolted in place. Individual letters that are mounted with epoxy or bolted in place will not be accepted. (Parks)
66. Utilities provided for parks shall be coordinated with Parks, Recreation & Libraries. (Parks)
67. A master access plan for open space along the entire project shall be prepared and submitted. The plan shall show proposed vehicle access points at a frequency that allows access to the entire open space areas. Natural features and proposed drainage ways shall be included. Once approved, the master access plan shall be included in improvement plans for phases or sub-phases. (Parks)
68. Costs for GIS mapping of city-maintained parcels shall be part of the project costs. (Parks)
69. Fences and walls are to be located on the private property side of the property line. (Parks)
70. All plant material shall be maintained under a 90 calendar day establishment period after initial planting. Upon completion of the establishment period, all plant material shall remain under warranty for an additional 9 months minimum. Any plant material which does not survive during the establishment period shall be immediately replaced. Any trees or shrubs which do not survive during the warranty period shall be replaced one month prior to the end of the warrantee period. Tree or shrub replacement made necessary due to acts of God, neglect or vandalism shall be exempt from the warrantee. (Parks)
71. The location and design of the gas service shall be determined by PG&E. The design of gas service for this project shall not begin until PG&E has received a full set of City approved improvement plans for the project. This excludes any regional gas transmission facilities along Baseline Road. (PG&E)
72. It is the developer's responsibility to notify PG&E of any work required on PG&E facilities. (PG&E)

PRIOR TO OR UPON RECORDATION OF FINAL/PARCEL MAP

73. Easement widths shall comply with the City's Improvement Standards and Construction Standards. (Environmental Utilities, Electric, Engineering)
74. All existing easements shall be maintained, unless otherwise provided for in these conditions. (Environmental Utilities, Electric, Engineering)
75. Separate document easements required by the City shall be prepared in accordance with the City's "Policy for Dedication of Easements to the City of Roseville". All legal descriptions shall be prepared by a licensed land Surveyor (Environmental Utilities, Electric, Engineering)
76. All Final Maps shall include an informational sheet that depicts all prior recordings within the bounds of the Sierra Vista Specific Plan, along with the inclusion of the new area being recorded. (Engineering)
77. Per Mitigation Measure 4.6-10 of the MITIGATION MONITORING PROGRAM FOR THE SIERRA VISTA SPECIFIC PLAN, prior to issuance of occupancy permits, the developer shall provide future

residents or other sensitive users notice regarding the proximity to McClellan Airport and the potential for over-flight noise. Notice shall be provided with either a deed disclosure or similar notice approved by the City Attorney or identified in the CC&R's for properties with CC&R's. (Planning)

78. The City shall not approve the Final Map for recordation until either:

- a. A subdivision agreement is entered into along with the necessary bonds and insurance as required by the City. Said agreement shall be in a form acceptable to the City Attorney; or
- b. The improvement plans are approved, and the improvements are constructed and accepted as complete. In this case, the subdivider shall enter into a one-year maintenance agreement concurrent with the recordation of the Final Map. (Engineering)

79. Any structures crossing Lot/Parcel lines created by the Final/Parcel map shall be removed. (Engineering)

80. Lot/Parcel DF-50, OS-1, OS-2 and OS-3 shall be dedicated as an Irrevocable Offer of Dedication (I.O.D.) to the City for the purposes of (floodplain, open space, or park). (Engineering, Parks)

81. If the bike trail is completed prior to City's acceptance of open space within which the trail is located, City shall be responsible for trail maintenance. In that case, the City and developer shall memorialize the maintenance obligations through recordation of a temporary maintenance and pedestrian/bike access easement. (Alternative Transportation, Engineering)

82. The street names shall be approved by the City of Roseville. (Planning)

83. The subject property shall be annexed into Municipal Services District #3 (Muni CFD) prior to approval of the Final/Parcel Map. This property is being added into this district in order to provide for the funds required to offset the property's impact on City general fund resources available to pay for municipal services citywide, including the project area. It is the applicant's responsibility to cooperate with the Finance Department in preparing the appropriate documentation for the annexation of this property into the CFD. In order to allow the CFD to be in place at the beginning of the Levy cycle, the documentation shall be provided to the Finance Department not later than March 15 of the year preceding the fiscal year in which this annexation will become effective. (Finance, Engineering)

84. The Final/Parcel Map shall include an irrevocable offer to dedicate public rights-of-way and public and/or private easements as required by the City. Lettered Lot//Parcel along major roads shall be dedicated as landscape/pedestrian/public utility easements and in fee to the City as open space. (Engineering)

85. The words "traffic control appurtenances" shall be included in the list of utilities allowed in public utilities easements (PUE's) located along public roadways. (Engineering)

86. The Final/Lot/Parcel/Parcel Map shall be submitted per, "The Digital Submittal of Cadastral Surveys". Submittal shall occur after Engineering approval but prior to Council approval (Engineering)

87. Applicant has the option of forming a Community Facilities District – Public Facilities (CFD) for the purpose of financing the construction and/or acquisition of public infrastructure and facilities within the project area. (Finance)

88. Electric construction costs incurred by the City of Roseville Electric Department for this project shall be paid for by the developer per applicable City policies. (Electric)

89. The applicant shall pay all applicable water and sewer fees. (Environmental Utilities)

OTHER CONDITIONS OF APPROVAL

90. As specified in Chapter 4.47 of the Roseville Municipal Code, the Applicant shall pay the Sierra Vista Specific Plan Mitigation Fee (commonly referred to as “Backbone Infrastructure Fee”), which is administered by the City in order to fund construction of backbone infrastructure within the SVSP. If the applicant is required to construct backbone infrastructure to serve the project, such as arterial/collector roadways, underground utilities, electric facilities, flood control facilities, or other improvements as outlined in the project’s development agreement, the applicant is eligible for fee credits and/or fee reimbursements. If the applicant seeks fee credits and/or fee reimbursements for backbone improvements, the applicant shall enter into a Fee Credit and Reimbursement Agreement with the City, which will specify the timing and obligations for credits and reimbursements.
91. The applicant shall pay City’s actual costs for providing plan check, installation and inspection services. This may be a combination of staff costs and direct billing for contract professional services (Environmental Utilities, Engineering)
92. Any relocation, rearrangement, or change to existing electric facilities due to this development shall be at the developer’s expense. (Electric)
93. It is the responsibility of the developer to insure that all existing electric facilities remain free and clear of any obstructions during construction and when the project is complete. (Electric)
94. Existing public facilities damaged during the course of construction shall be repaired by the applicant, at the applicant’s expense, to the satisfaction of the City. (Engineering)
95. The project is subject to the noise standards established in the City’s Noise Ordinance. In accordance with the City’s Noise Ordinance project construction is exempt between the hours of seven a.m. and seven p.m. Monday through Friday, and between the hours of eight a.m. and eight p.m. Saturday and Sunday. Provided, however, that all construction equipment shall be fitted with factory installed muffling devices and that all construction equipment shall be maintained in good working order. (Engineering)
96. If site survey or earth moving work results in the discovery of hazardous materials in containers or what appears to be hazardous wastes released into the ground, the contractor shall notify the Roseville Fire Department immediately. A representative from the Fire Department will make a determination as to whether the incident is reportable or not and if site remediation is required. Non-emergency releases or notifications about the presence of containers found shall be reported to the Fire Department. (Fire)
97. With the exception of access required for maintenance and/or emergency vehicles, the project shall be designed to prevent vehicle access into the Preserve. Post and cable fencing or other improvements shall be utilized to meet this requirement. (Parks, Recreation & Libraries)
98. Landscaping adjacent to the Preserve shall be California native, drought-tolerant and non-invasive groundcover, shrubs, plants and trees. (Parks, Recreation & Libraries, Planning)
99. Landscape plans are required for the paseo adjacent to Market Street with the second submittal and shall include a master irrigation plan showing all phases of work. The master irrigation plan shall include all mainline layout/size, points of connection/sizes, controller location, valves and phasing with limit of work lines. This plan shall be included in all phased submittals. All irrigation and landscaping shall comply with the Parks Construction Standards. (Parks, Recreation & Libraries)

100. The project shall clearly delineate City-maintained landscaping from privately maintained landscaping with a concrete mowband consistent with the Parks Construction Standards. (Parks, Recreation & Libraries)
101. City maintained streetscapes shall provide a 2' bench between back of walk and toe of slope which slopes away from the back of walk to decrease nuisance run-off from irrigated and landscaped slopes. (Parks, Recreation & Libraries)
102. Slopes along the developed property line and open space shall be a minimum of 3:1. If circumstances require a 2:1 slope, Parks, Recreation & Libraries, and Development Services will need to approve the proposed grades adjacent to open space parcels. (Parks, Recreation & Libraries, Development Services)
103. The dedication of parkland (future parks and/or open space) shall be deeded to the City through an Irrevocable Offer of Dedication (IOD). As a default, park and open space parcels shall be excluded from acceptance through the mapping approvals and completed as a separate deed process. (Parks, Recreation & Libraries, Development Services)
104. For Parks, the transfer of property shall be at the City's request, generally, timed to coincide with the start of the specific park design phase of work, or at such time that the Final Map has been recorded, frontage improvements are complete and the parcels have been annexed into the CFD for Services. (Parks, Recreation & Libraries, Development Services)
105. For Open Space, the transfer of property shall occur once all mitigation measures, Developer construction activity immediately surrounding the parcel and implementation measures identified in the Overarching Open Space Management Plan have been completed and verified as complete by the Open Space Division of Parks & Recreation, unless otherwise noted or requested. (Parks, Recreation & Libraries, Development Services)
106. For streetscapes to be City-maintained, the lots shall be separate parcels and accepted through the standard Certificate of Compliance (COC) process for street improvements. The establishment period shall be complete at COC unless a letter of agreement outlining establishment responsibilities beyond the COC has been executed between the City and Developer. (Parks, Recreation & Libraries, Development Services)
107. The SVSP Design Guidelines encourage residential units to be oriented toward park areas. Residential units on lots 47, 63, 64, and 84 in Parcel DF-2 have side-on orientation to Street A, and the adjacent park site (DF-50). Residential units proposed for these lots shall have street side architectural elements, such as a side porch and windows, and fence orientation that will maximize visibility from the subdivision to the park site on the south side of Street A, as shown on the tentative map. (Planning)
108. The project shall comply with all applicable environmental mitigation measures identified in the SVSP Final EIR and as provided in Attachment 1. (Planning)

ATTACHMENT

1. Applicable SVSP CEQA Mitigation Measures

EXHIBITS

- A. SVSP Land Use Chapter Amendment (Table 4-2)

- B. Dwelling Unit Relocation Plat
- C. Phased Tentative Subdivision Map (DF-1, DF-2, DF-50, DF-71 and DF-72)
- D. Grading, Storm Drainage, Sanitary Sewer and Water Plan
- E. Offsite Grading Plan for DF-20
- F. Infrastructure Phasing Plan

Note to Applicant and/or Developer: Please contact the Planning Division staff at (916) 774-5276 prior to the Commission meeting if you have any questions on any of the recommended conditions for your project. If you challenge the decision of the Commission in court, you may be limited to raising only those issues which you or someone else raised at the public hearing held for this project, or in written correspondence delivered to the Planning Manager at, or prior to, the public hearing.