

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Hughes Park Trail Project

October 2014

Lead Agency:



311 Vernon Street
Roseville, CA 95678
Contact: Mark Morse
(916) 774-5334

Prepared by:



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**NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION**

for the

Hughes Park Trail Project — City of Roseville

Public Notice is hereby given that a Mitigated Negative Declaration (Environmental Report) is available for public review for the Hughes Park Trail Project – City of Roseville.

Project Location: The Proposed Project is located approximately 1.9 miles west of State Route 65 at the northside of Hughes Park located at 2796 McCloud Way, Roseville, Placer County, California.

Project Description: The project proposes to construct 1,000 feet of paved or decomposed granite trail, a pedestrian and bicycle bridge over Pleasant Grove Creek, and related drainage and flood control improvements within Hughes Park in the City of Roseville. The trail will connect the existing 2.9 mile segment of Pleasant Grove Creek Trail to Bent Tree Drive.

Document Review and Availability: The public review and comment period will extend for 30 days in accordance with CEQA Guidelines Section 15105 starting **October 31, 2014** and ending **December 1, 2014**. The Initial Study/Mitigated Negative Declaration (IS/MND) is available for public review at the following location:

- City of Roseville Permit Center
311 Vernon Street
Roseville, CA 95678
(8:00 A.M. to 5:00 P.M., Monday through Friday)

The IS/MND can also be viewed and/or downloaded at the City of Roseville website via the following:
http://www.roseville.ca.us/gov/development_services/planning/environmental_documents_n_public_notices.asp.

Comments/Questions: Comments and/or questions regarding the IS/MND may be directed to: Mark Morse, Environmental Coordinator, City of Roseville, City Manager's Office, 311 Vernon Street, Roseville, CA 95678 (916) 774-5334.

Public Meetings: The IS/MND is tentatively scheduled for consideration and possible adoption by the Roseville City Council on **December 17, 2014**. City Council meetings start at 7:00 P.M. in the Roseville Council Chambers, 311 Vernon Street. Interested parties should call the Roseville City Clerk's Office to confirm meeting agendas, times, and dates (916) 774-5263.

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MITIGATED NEGATIVE DECLARATION

PROJECT TITLE: Hughes Park Trail Project
PROJECT LOCATION: 2796 McCloud Way, Roseville, Placer County, California
DATE: October 31, 2014
PROJECT APPLICANT: City of Roseville, Parks and Recreation Department
LEAD AGENCY: City of Roseville
CONTACT PERSON: Mark Morse, Environmental Coordinator: (916) 774-5334

PROJECT DESCRIPTION:

The project proposes to construct 1,000 feet of paved or decomposed granite trail, a pedestrian and bicycle bridge over Pleasant Grove Creek, and related drainage and flood control improvements within Hughes Park in the City of Roseville. The trail will connect the existing Pleasant Grove Creek Trail with Bent Tree Drive.

DECLARATION

The City of Roseville Environmental Coordinator has determined that the above project will have no significant effect on the environment and is therefore exempt from the requirement of an Environmental Impact Report (EIR). The determination is based on the attached initial study and the following findings:

- a) *The project will not degrade environmental quality, substantially reduce habitat, cause a wildlife population to drop below self-sustaining levels, reduce the number or restrict the range of special-status species, or eliminate important examples of California history or prehistory.*
- b) *The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*
- c) *The project will not have impacts that are individually limited, but cumulatively considerable.*
- d) *The project will not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.*
- e) *No substantial evidence exists that the project will have a negative or adverse effect on the environment.*
- f) *The project incorporates all applicable mitigation measures identified in the Initial Study.*
- g) *This Mitigated Negative Declaration reflects the independent judgment of the lead agency.*

Written comments shall be submitted no later than December 1, 2014. City Council determination on this Mitigated Negative Declaration is final.

Submit comments to:

Mark Morse, Environmental Coordinator
City of Roseville, City Manager's Office
311 Vernon Street
Roseville, CA 95678

Posting Period:

October 31, 2014 through December 1, 2014

Initial Study approved by:



Mark Morse, Environmental Coordinator

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Initial Study/Mitigated Negative Declaration Hughes Park Trail Project

Lead Agency: City of Roseville
311 Vernon Street
Roseville, CA 95678

Prepared by:



October 2014

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1.0 INTRODUCTION

This project-level Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the Hughes Park Trail Project (Proposed Project) to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 *et seq.*) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 *et seq.*). The City of Roseville (City) is the lead agency for this project under CEQA.

1.1 Initial Study Purpose

CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If it is determined that the Proposed Project may have a significant impact on the environment, but that these impacts will be reduced to a Less Than Significant Level through implementation of specific recommended mitigation measures, a Mitigated Negative Declaration shall be prepared.

This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Hughes Park Trail Project and relies on a combination of a previous environmental document and site-specific studies to address in detail the effects or impacts associated with the Proposed Project. In particular, this Initial Study assesses the extent to which the impacts of the Proposed Project have already been addressed in the certified Final Environmental Impact Report (“EIR”) for the *North Roseville Specific Plan*, as certified by the City of Roseville City Council in July 1997 (EIP Associates 1997). In some instances, the City or consultants reporting to the City undertook new site-specific analyses to evaluate potential impacts resulting from implementation of the Proposed Project as consistent with, or no worse than, those impacts evaluated and disclosed within the *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997). Site-specific studies were also used where the City determined that particular impacts of the Proposed Project (biological resources impacts and hydrology impacts) had not been thoroughly addressed in the previous EIR.

This IS/MND is a public information document that describes the Proposed Project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the Proposed Project. It is intended to inform decision-makers of the Proposed Project’s compliance with CEQA and the State CEQA Guidelines.

1.2 Review Process

This IS/MND will be circulated for a 30-day public review and comment period as required by CEQA. During the review period, written comments may be submitted to:

Mr. Mark Morse
Environmental Coordinator
Roseville City Manager’s Office
311 Vernon Street
Roseville, CA 95678
mmorse@roseville.ca.us

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2.0 PROJECT DESCRIPTION

This section provides an overview of the Proposed Project and contains the information used to analyze potential effects on environmental resources.

2.1 Project Location

The Proposed Project is located approximately 1.9 miles west of State Route 65 at the northside of Hughes Park located at 2796 McCloud Way, Roseville, Placer County, California, within Township 11 North, Range 6 East, Section 17 of the *Roseville, California* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (**Figure 1**).

2.2 Project Setting

The 0.777-acre project site is located within Hughes Park and includes annual grassland, riparian woodland, Pleasant Grove Creek, a riverine seasonal wetland and an ephemeral drainage. The project site is within an area zoned as Park and Recreation and Open Space and is designated as Park and Recreation and Open Space within the *City of Roseville General Plan, Land Use Element* (City of Roseville 2010).

The site is accessible from Parkside Way, Bent Tree Drive and the Pleasant Grove Creek Trail. The park is bordered by low-density residential land uses to the north, east, and west and by commercial land uses to the south.

2.3 Project Description

Development of the Proposed Project would involve the construction of a paved or decomposed granite (DG) trail, a pedestrian and bicycle bridge over Pleasant Grove Creek, the cutting and replacing of existing Pleasant Grove Creek Trail pavement near the east end of the project alignment, and related drainage and flood control improvements within Hughes Park in the City of Roseville. The Proposed Project would connect the existing Pleasant Grove Creek Trail to Bent Tree Drive. The proposed trail segment would extend approximately 1,000 feet in length and would be constructed to a width of 10 feet with 2-foot shoulders on either side (**Figure 2**). As a part of the Proposed Project, a swale would be graded along the trail alignment in order to capture and redirect runoff from the trail. The swale would be graded starting on the west side of the trail approximately 115 feet from Bent Tree Drive and ending at the culvert opening south of the trail. On the north side of the trail the swale would start approximately 50 feet west of the proposed bridge and direct flows to the culvert opening north of the trail. The swale would be two feet wide with slopes varying between one and two percent.

As shown on **Figure 3**, the proposed bridge would span 55 feet from bank to bank across Pleasant Grove Creek with supporting concrete abutments which extend an additional 10 feet on the eastern side and 18 feet on the western side. The bridge would be 14 feet wide with 2-foot high railings and would be designed for pedestrian and bicyclist access and use (see **Figure 4**). Bridge construction would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek. Construction of the proposed bridge would result in the loss of two interior live oak trees.

In addition to the proposed bridge crossing over Pleasant Grove Creek, development of the Proposed Project would also require a culvert crossing over the seasonal wetland feature located west of Pleasant Grove Creek along the proposed trail alignment. In order to create a culvert crossing for pedestrians and bicyclists, the seasonal wetland would be piped within a 24-inch reinforced concrete pipe for 32 feet. The pipe will be placed at the existing seasonal wetland flowline and headwalls, trash racks and rip rap will be placed at each opening of the pipe to prevent debris from entering. The headwall and trash rack structure will be 4 feet wide and will extend past the end of the pipe by 8 feet and 3 inches and will widen to 9 feet and 4 inches wide adjacent to the rip rap. Rip rap placement will extend 9' long by 5' wide by 1.5' deep at each opening adjacent to the headwall and trash rack (see **Figure 5**).

A staging area for the construction equipment will be located at the current terminus of the existing paved Pleasant Grove Creek Trail alignment directly east of and adjacent to proposed improvements.

Because the project alignment is segmented by the Pleasant Grove Creek, the project alignment will be accessed for construction activities from both the eastern and western sides of the Creek. The portion of the project alignment to the east of the Creek will be accessed from the staging area on the existing Pleasant Grove Creek Trail, which will be accessed via McCloud Way. The portion of the project alignment to the west of the creek will be accessed using the corner of Bent Tree Drive directly adjacent to the intersection of Bent Tree Drive and Parkside Way.

The Proposed Project includes APM — 1 Flood Control Mitigation in order to limit upstream impacts due to an increase in the 100-year water surface elevation of 0.01 feet. In order to limit upstream impacts to City-owned properties, approximately 650 feet upstream of the proposed bridge, an area adjacent to Pleasant Grove Creek and upstream of the proposed bridge will be regraded to slope at 0.8 percent towards the creek for 50 feet, and then remain 6-inches below existing grade for an area 60 feet wide (parallel to the creek) and 180 feet long (perpendicular to the creek). The excavated area will provide the additional onsite floodwater storage needed to ensure that any backwater created by the proposed bridge would be contained entirely on City- owned property. There are currently 27 native oak saplings planted as mitigation trees within the flood control excavation area. These saplings would be replanted within the flood control excavation area, or adjacent to the area as deemed necessary, following grading activities. This measure would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek.

Document Path: O:\N_Cal\H_Projects\Hughes_Park\GIS\GIS_Projects\HughesPark_SnV_CEOA_20140812.mxd



USGS 7.5 Min. Roseville Quad
 Township 11N, Range 6E, Section 17
 Approximate Location: 38° 48' 3.982" N, 121° 20' 10.942" W
 Datum: NAD 83 State Plan CA Zone II (US Feet)
 Approximate acreage: 0.777 Acres

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HUGHES PARK TRAIL - SITE AND VICINITY

FOOTHILL ASSOCIATES
 ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
 © 2014

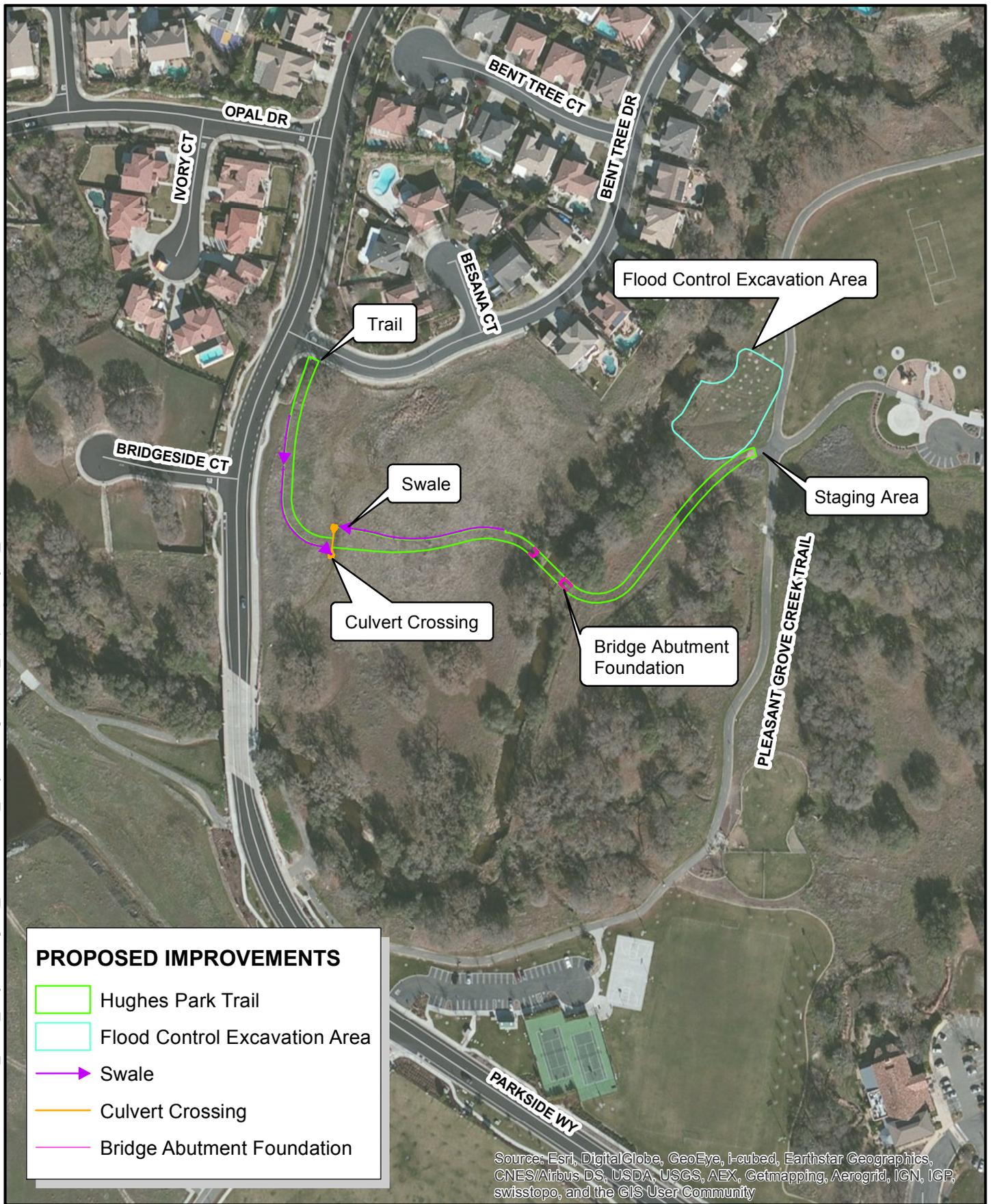


0 300 600
 FEET
 1 inch = 600 feet

Drawn By: KER
 Date: 09/19/2014

FIGURE 1

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HUGHES PARK TRAIL - PROPOSED PROJECT



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2" STEEL PIPE TOP RAIL
WELD TO VERTICAL STILE;
GRIND SMOOTH.

2" STEEL PIPE VERTICAL

12"DIA X36" DEEP
CONC FOOTING

FIN GRADE
REFER TO CIVIL DWGS

STEEL BEAM,
REFER TO STRUCT. DWGS.

BRIDGE ABUTMENT,
REFER TO STRUCT. DWGS

(A) SECTION @ ABUTMENT

C

2" STEEL PIPE TOP RAIL
WELD TO VERTICAL STILE;
GRIND SMOOTH.

2" STEEL PIPE VERTICAL

CONTINUOUS WELD AROUND
PERIMETER OF STEEL PIPE
VERTICAL TO STEEL BEAM;
GRIND SMOOTH

STEEL BEAM,
REFER TO STRUCT. DWGS.

WOOD BRIDGE DECK.
REFER TO STRUCT. DWGS

(B) PARTIAL ELEVATION

(C) RAILING SECTION

11 GUARDRAIL DETAILS

1"=1'-0"

RHP_DT001

PLEASANT GROVE CREEK SPANNED BRIDGE CROSSING 60% DESIGN — ABUTMENT AND RAILING SECTIONS



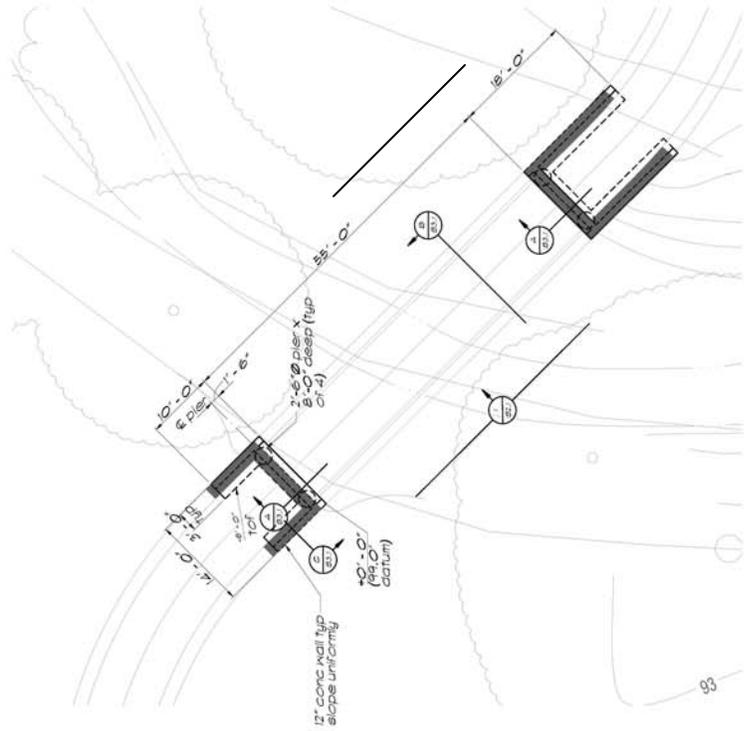
Digital Data Provided by:
William + Paddon Architects + Planners, Inc.

NO SCALE

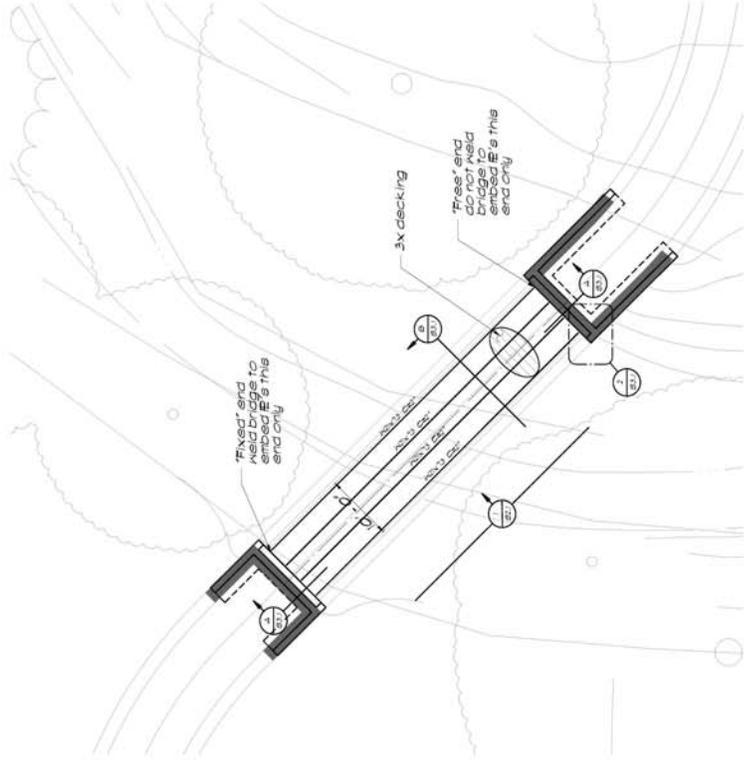
Layout By: CTG
Date: 09/17/14

FIGURE 3

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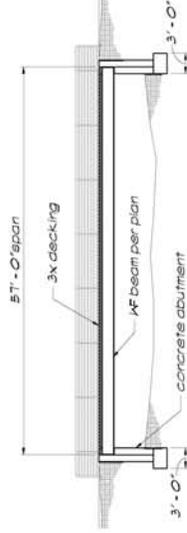


Foundation Plan - 1/8" = 1'-0"



Bridge Deck Framing Plan - 1/8" = 1'-0"

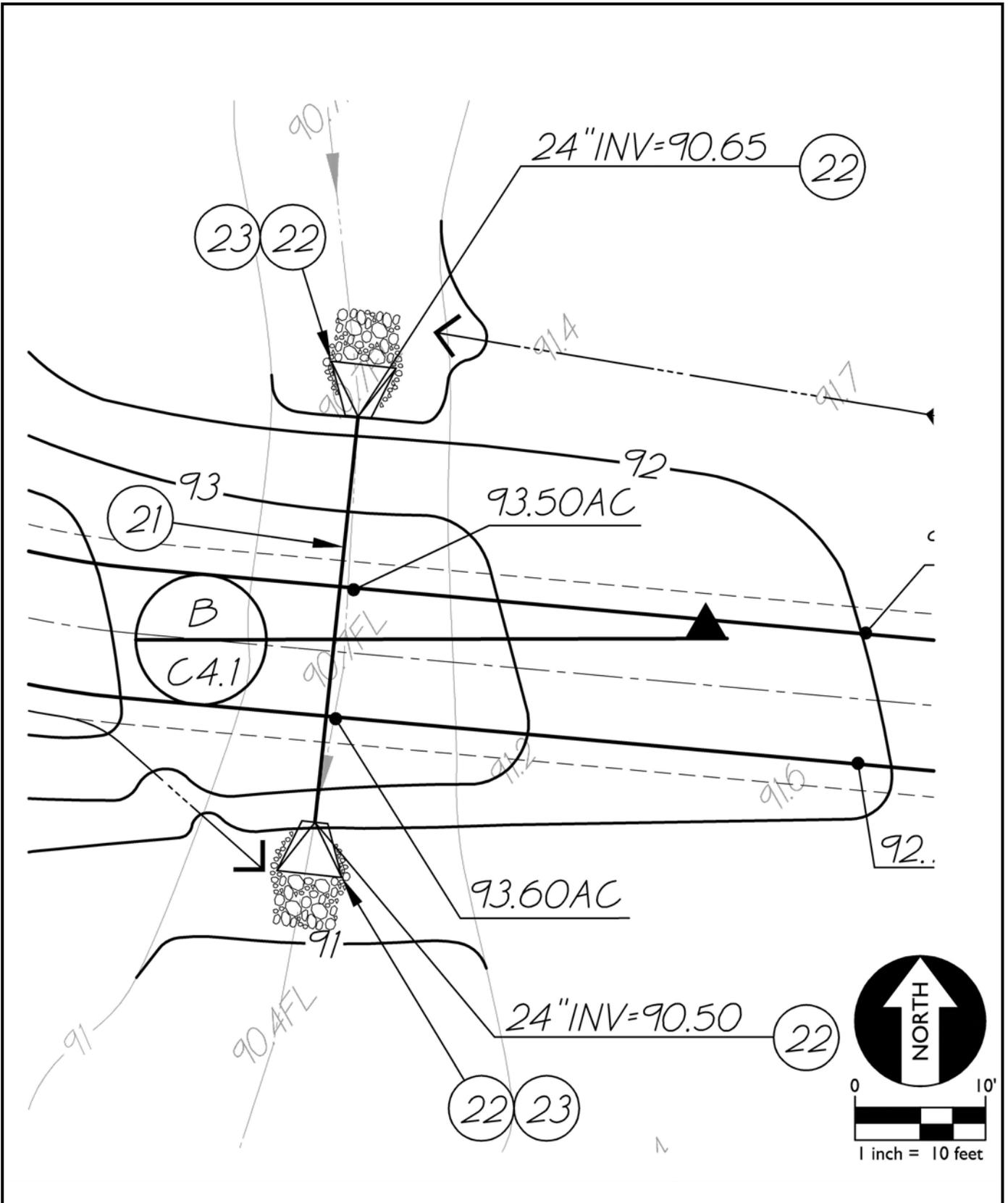
- Notes:
1. All excavation & foundation excavation to be done in accordance w/ Foundation Notes, sheet S1.1.
 2. See sheet S1.1 for General Notes & Typical Details.
 3. Indicates conc retaining wall, see plan & section for size & reinforcement.
 4. Indicates a footing step see for detail.
 5. Indicates top of footing elevation.



Elevation - 1/8" = 1'-0"

PLEASANT GROVE CREEK SPANNED BRIDGE CROSSING 60% DESIGN — FOUNDATION AND DECK PLANS

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Digital Data Provided by Warren Consulting Engineers, Inc.

HUGHES PARK TRAIL - CULVERT CROSSING 60% DESIGN



NO SCALE

Layout By: CTG
Date: 10/22/14

FIGURE 5

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2.4 Background

The Proposed Project is located within Phase 1 of the North Roseville Specific Plan area (Plan Area) (EIP Associates 1997). Phase 1 of the Plan Area includes approximately 749 acres of the City of Roseville and is located directly west of Foothills Boulevard, north of Blue Oaks Boulevard to the City limits and south of Blue Oaks Boulevard to the Woodcreek Golf Club. The *North Roseville Specific Plan Environmental Impact Report* was prepared in May 1997 pursuant to the California Environmental Quality Act. The final EIR was approved in July 1997 and Phase 1 of the Plan Area was subsequently adopted in August 1997 (EIP Associates 1997).

Given the comprehensive nature of the EIR as well as project components proposed beyond those anticipated by the EIR, it was determined that preparation of an Initial Study would be required in order to assess project-specific impacts related to implementation of the Proposed Project. Through the preparation of the Initial Study, it was determined that these impacts could be reduced to a Less Than Significant Level through implementation of mitigation measures, and a Mitigated Negative Declaration was subsequently prepared.

2.5 Construction

Project construction is planned to commence during spring/summer 2015, and would involve the use of various types of standard construction equipment, including, but not limited to the following: water trucks, concrete saws, backhoes, graders and compactors.

2.6 City Of Roseville Mitigating Ordinances, Guidelines, and Standards

The CEQA Guidelines allow the use of previously adopted development policies or standards as mitigation for the environmental effects of future projects, when the standards have been adopted by the City with findings, based on substantial evidence, that the policies or standards will substantially mitigate environmental effects, unless substantial new information shows that the policies or standards will not substantially mitigate the effects (§15183[f]). In April 2008, the City of Roseville adopted Findings of Fact related to the mitigating policies and standards, and adopted the City of Roseville CEQA implementing procedures for the preparation, processing, and review of environmental documents (Resolution 08-172). These Findings are applicable to the following regulations and ordinances, which include standards and policies that are uniformly applied throughout the City, and will substantially mitigate specified environmental effects of future projects:

- Noise Regulation (RMC Ch.9.24)
- Urban Stormwater Quality Management and Discharge Control Ordinance (RMC Ch.14.20)
- Stormwater Quality Design Manual (Resolution 07-432)
- City of Roseville Design and Construction Standards (Resolution 07-137)
- Community Design Guidelines (Resolution 95-347)
- Tree Preservation Ordinance (RMC Ch.19.66)

The City's Mitigating Ordinances, Guidelines, and Standards are referenced, where applicable, in the Environmental Checklist, and will be implemented as part of the Proposed Project to reduce potential impacts to a Less Than Significant Level.

2.7 Environmental Commitments

In addition to the City's Mitigating Ordinances, Guidelines, and Standards discussed above, the following Applicant-Proposed Minimization Measure (APM) will be implemented in order to minimize the flood impacts

due to construction of the proposed bridge. The proposed APM will limit upstream impacts to locations approximately 650 feet upstream from the proposed bridge to those parcels which are owned by the City of Roseville and would avoid impacts to privately held parcels.

APM — 1: Flood Control Mitigation

Areas upstream of the proposed bridge location will be regraded to slope at 0.8 percent towards the creek for 50 feet, and then remain 6-inches below existing grade for an area 60 feet wide (parallel to the creek) and 180 feet long (perpendicular to the creek).

In addition to the above APM and as noted on project construction documents, the Applicant will implement several additional Best Management Practices (BMPs) outlined below.

BMP — 1: Erosion and Sediment Control

- The State’s General Permit for stormwater discharges associated with construction activity (WQD 99-080-DWQ) requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for sites with soil disturbances greater than or equal to one acre, or from sites smaller than one acre if the construction activity is part of a larger plan of development or sale that disturbs one acre or more. Construction activity shall not commence, nor is a pre-construction meeting permitted to be scheduled, prior to the SWPPP being accepted by the City.
 - A copy of the SWPPP shall be kept at the project site at all times.
 - All slopes greater than 10:1 shall be covered with broadcast straw at a rate of 50 bales or 4,000 pounds per acre. For slopes 4:1 or steeper, straw shall be pressed in place. Other methods shall be approved by the City of Roseville Engineering Division.
 - Slopes steeper than 4:1 and adjacent to City right-of-ways, flood plains, natural drainages, park land or designated open space shall be hydroseeded.
 - All bare areas, regardless of slope, within 50 feet of natural drainages shall be covered with straw and pressed in place.
 - Where required, broadcast seed shall be applied as follows:
 - Blando Brome: 12 lbs/acre
 - Rose Clover: 9 lbs/acre
- Areas with sandy, dry soil shall be:
- Zorro Annual Fescue: 6 lbs/acre
 - Rose Clover: 9 lbs/acre
- No grading or trenching, except as required for erosion or sediment control, shall occur within 35 feet from the centerline of perennial and intermittent drainage swales between October 5 and April 1 except as approved by State and Federal permitting agencies.
 - All erosion and sediment control measures shall be checked following all storms to ensure that all measures are functioning properly.
 - Sediment and trash accumulated in drainages or detention basins shall be removed as soon as possible. In addition, oil and material floating on water surface must be skimmed weekly and the debris properly disposed of.

- Construction activities occurring between October 15 and April 1 shall have erosion and sediment control measures in place or capable of being placed within 24 hours. The contractor shall ensure that the construction site is prepared prior to the onset of any storm.
- The contractor shall establish a specific site within the development for maintenance and storage of equipment or any other activity that may adversely contribute to the water quality of the runoff. This area shall have a berm located around its perimeter. This area shall be restored to acceptable condition upon completion of project.

BMP — 2: Comply with Requirements of the Tree Preservation Chapter of the Roseville Zoning Ordinance

The requirements of the City of Roseville Tree Ordinance will be implemented, including avoidance, minimization, or compensation for the removal or disturbance of native oak trees greater than six inches diameter at breast height (DBH) during construction. If native oak trees will be affected by the project, the contractor will be required to prepare a tree mitigation plan that identifies trees that qualify for protection and specifies mitigation for impacts, including temporary construction impacts associated with any work required within the drip like of native oaks. For any oak trees that would be removed, the City will mitigate the impact through either onsite planting or use of the City’s In-lieu fee program.

2.8 Required Permits and Approvals

The following permits and/or approvals are anticipated for the Proposed Project:

- Streambed Alteration Agreement — California Department of Fish and Wildlife (CDFW);
- Clean Water Act Section 401 Permit — Central Valley Regional Water Quality Control Board (CVRWQCB);
- Clean Water Act Section 404 Permit— U.S. Army Corps of Engineers (USACOE);
- Adoption of the Mitigated Negative Declaration for the Proposed Project and a Mitigation Monitoring and Reporting Plan are enclosed as **Appendix A** of this document – Roseville City Council; and
- Project Approval – Roseville City Council.

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3.0 INITIAL STUDY CHECKLIST

The California Environmental Quality Act (CEQA) Guidelines recommend that lead agencies use an Initial Study checklist to determine the potential impacts of the Proposed Project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the Proposed Project. This section of the Initial Study incorporates a portion of the Appendix "G" environmental checklist form, contained in the CEQA Guidelines (revised 2014). The City has modified the Appendix "G" environmental checklist form to include a reference to CEQA Section 21083 and CEQA Guidelines Section 15183 in order to identify impact areas that do not require further analysis than that which was provided in the applicable Specific Plan and/or General Plan EIR. Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas. There are four possible answers to the environmental impacts checklist questions on the following pages. Each possible answer is explained herein:

- 1) A **"Potentially Significant Impact"** is appropriate if there is enough relevant information and reasonable inferences from that information that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more "Potentially Significant Impact" entries are made, an EIR is required.
- 2) A **"Less Than Significant With Mitigation Incorporated"** answer is appropriate when the Applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to "Less Than Significant." For example, impacts to flood waters could be reduced from a "Potentially Significant Impact" to a "Less Than Significant Impact" by relocating a building to an area outside the floodway. The lead agency must describe the mitigation measures, and briefly explain how the measures would reduce the impact to a "Less Than Significant Level."
- 3) A **"Less Than Significant Impact"** is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the project will reduce the impact(s) to a "Less Than Significant Level." For example, the application of the City's Improvement Standards reduces potential erosion impacts to a "Less Than Significant Impact."
- 4) A **"No Impact"** answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For example, a project in the center of an urbanized area will clearly not have an adverse effect on agricultural resources or operations.

All answers must take into account the whole action involved, including off-site as well as on-site, cumulative, as well as project-level, indirect as well as direct, and construction as well as operational impacts, except as provided for under CEQA Guidelines Section 15183 and CEQA Section 21083.3.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each response. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

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

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

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 proposed project have been made by or agreed to by the applicant. 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.

 <hr/> Mark Morse, Environmental Coordinator	<p style="text-align: right; color: blue;">10-27-14</p> <hr/> Date <hr/> City of Roseville <hr/> Organization
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3.1 Aesthetics

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

Discussion of Checklist Answers:

a,b. No Impact. The City has not designated any specific scenic vistas to be protected in the City of Roseville, and there is not a state-designated scenic highway in the project vicinity. There would be **No Impact**. No mitigation is required.

c. Less Than Significant Impact. The Proposed Project involves the creation of a trail alignment which will connect to the existing Pleasant Grove Creek Trail. The trail alignment is within an open space area of Hughes Park characterized by annual grassland, riparian woodland, Pleasant Grove Creek a riverine seasonal wetland feature and an ephemeral drainage feature. The project alignment is bordered by residential land uses to the north, east and west and by commercial land uses to the south. The paved portion of the existing Pleasant Grove Creek Trail currently extends from just west of Angus Road through Hughes Park and past Woodcreek Oaks Boulevard by approximately 0.50 mile. The proposed trail will be a 10-foot wide path with 2-foot wide shoulders on either side and will be of comparable visual character to the existing Pleasant Grove Creek Trail. Additionally, construction on the project alignment would be temporary and would not permanently degrade the character of the project area. No new operational characteristics would be introduced that would substantially degrade the existing visual character of the site.

The Proposed Project is designed to minimize the number of mature trees to be removed. However, two interior live oak trees would be removed, the dripline of one interior live oak tree will be encroached upon and 27 native oak tree saplings would be relocated as a result of project development.

BMP — 2 commits to compliance with the City of Roseville Tree Ordinance:

BMP — 2: Comply with Requirements of the Tree Preservation Chapter of the Roseville Zoning Ordinance

The requirements of the City of Roseville Tree Ordinance will be implemented, including avoidance, minimization, or compensation for the removal or disturbance of native oak trees greater than six inches diameter at breast height (DBH) during construction. If native oak trees will be affected by the project, the contractor will be

required to prepare a tree mitigation plan that identifies trees that qualify for protection and specifies mitigation for impacts, including temporary construction impacts associated with any work required within the drip like of native oaks. For any oak trees that would be removed, the City will mitigate the impact through either onsite planting or use of the City's In-lieu fee program.

Impacts to native oaks would be mitigated consistent with the City of Roseville Tree Ordinance. In the context of the existing tree canopy, the proposed removals would not substantially degrade the existing visual quality of the site and related impacts would therefore be considered **Less Than Significant**.

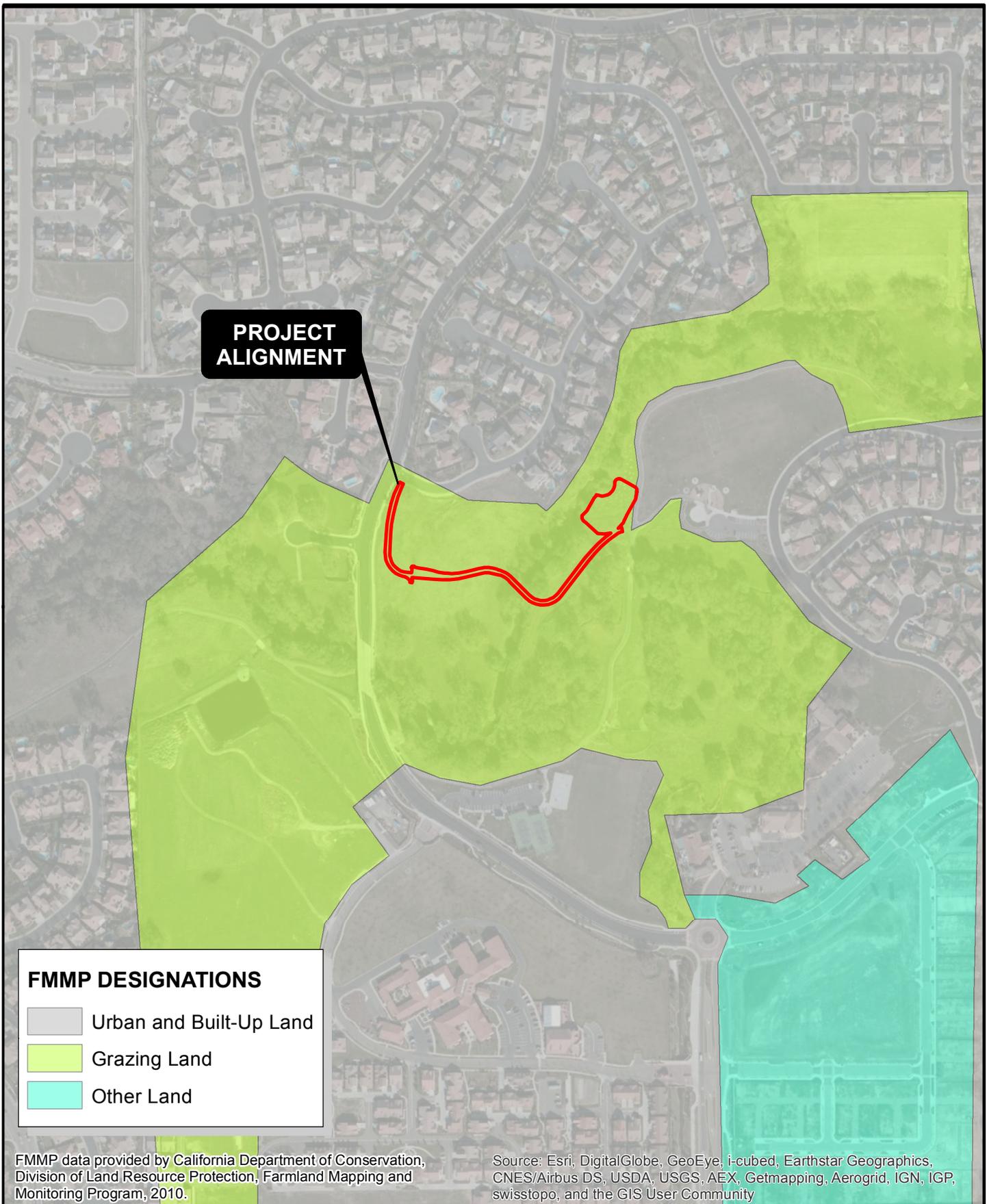
- d. **No Impact.** The Proposed Project would not include any project components that could increase glare in the project area. The project does not involve the installation of light fixtures, and therefore will not result in a new source of light or glare that would adversely affect nighttime views in the area. There would be **No Impact**. No mitigation is required.

3.2 Agriculture and Forest Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Checklist Answers:

a-e. No Impact. The project alignment is designated as “Grazing Land” by the State Farmland Mapping and Monitoring Program. However, the site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations (**Figure 6**). Additionally, the project alignment is surrounded by open space, commercial and residential land uses. While the project alignment contains some area of riparian woodland, it is not zoned as forest land or Timberland Production. Therefore, the Proposed Project would not involve the loss of any forest land. The project site is not zoned for any agricultural use nor is it designated for agricultural use by the City’s General Plan or Zoning Ordinance (City of Roseville 2010). No agricultural operations exist in the project vicinity, and the project would not involve any changes that could result in conversion of any farmland to a non-agricultural use or forestland to non-forestland use. Therefore, there would be **No Impact** related to agricultural and/or forest resources. No mitigation is required.



HUGHES PARK TRAIL - FARMLAND



3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Checklist Answers:

- a. **Less Than Significant Impact.** Project development would occur under the jurisdiction of the Placer County Air Pollution Control District (PCAPCD) within the Sacramento Valley Air Basin (SVAB). The SVAB is designated non-attainment for the federal particulate matter 2.5 microns in diameter (PM_{2.5}) and the State particulate matter 10 microns in diameter (PM₁₀) standards, as well as for both the federal and State ozone standards. In order to address the federal non-attainment status for ozone, the PCAPCD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone standards (CARB 2013). As such, the PCAPCD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan) in December 2008 (CARB 2014). The PCAPCD adopted the Plan on February 19, 2009. The California Air Resources Board (CARB) determined that the Plan meets Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. Accordingly, the Plan is the applicable air quality plan for the Proposed Project site. It should be noted that an update to the Plan, the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 SIP Revisions), has been prepared and was approved and adopted on September 26, 2013. The 2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan were submitted to the U.S. Environmental Protection Agency (USEPA) as a revision to the SIP in November 2013. USEPA has found adequate the motor vehicle emissions budgets within the revised SIP, their findings are effective as of August 25, 2014.

The Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the federal Clean Air Act requirements, including the National Ambient Air Quality standards (NAAQS). Adoption of all reasonably available control measures is required for

attainment. Measures could include, but are not limited to the following: regional mobile incentive programs; urban forest development programs; and local regulatory measures for emission reductions related to architectural coating, automotive refinishing, natural gas production and processing, asphalt concrete, and various others.

A conflict with, or obstruction of, implementation of the Plan could occur if a project generates greater emissions than what has been projected for the site in the emission inventories of the Plan. Emission inventories are developed based on projected increases in population, employment, regional vehicle miles traveled (VMT), and associated area sources within the region, which are based on regional projections that are, in turn, based on the General Plan Land Use and Zoning Designations for the region. In addition, general conformity requirements of the Plan include whether a project would cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS.

The Proposed Project would not modify the existing land use or operations on the site. Rather, the Proposed Project would encourage alternative modes of transportation which would not contribute to ozone and particulate matter levels such as bicycles, as opposed to motor vehicles. Thus, the Proposed Project would not conflict with the emissions inventories of the Plan, and would be considered consistent with the Plan. In addition, the PCAPCD's permits, rules, and regulations are in compliance with the Plan, and the Proposed Project is required to comply with all applicable PCAPCD rules and regulations. Furthermore, as analyzed and determined in the discussions below, the Proposed Project would not result in project-level construction emissions that would exceed the applicable thresholds of significance. Thus, the Proposed Project would not cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS.

Because the Proposed Project would not conflict with the emissions inventories of the Regional Air Quality Plan, would result in emissions below the thresholds of significance, and would not conflict with or obstruct implementation of the applicable Air Quality Plan, impacts would be considered **Less Than Significant**. No mitigation is required.

- b. Less Than Significant Impact.** In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants, the PCAPCD recommends significance thresholds for emissions of PM₁₀, carbon monoxide (CO), and ozone precursors – reactive organic gases (ROG) and nitrous oxides (NO_x). The significance thresholds, expressed in pounds per day (lbs/day), listed in **Table 1** below are the PCAPCD's recommended thresholds of significance for use in the evaluation of air quality impacts associated with proposed development projects. The City of Roseville, as Lead Agency, utilizes the PCAPCD's recommended project-level criteria air pollutant thresholds of significance for CEQA evaluation purposes. Thus, if the Proposed Project's emissions exceed the pollutant thresholds presented in **Table 1**, the project could have a significant effect on air quality and the attainment of federal and State Ambient Air Quality Standards.

Table 1 — PCAPCD Recommended Thresholds of Significance

Pollutant	Construction/Operational Threshold (lbs/day)
ROG	82
NO _x	82
PM ₁₀	82
CO	550

Source: PCAPCD 2012.

Implementation of the Proposed Project would contribute local emissions in the area during construction. Short-term construction-related emissions resulting from project construction were

estimated using the Roadway Construction Emissions Model version 7.1.5.1, a model developed by Jones & Stokes and TIAX LLC in partnership with the Sacramento Metropolitan Air Quality Management District (SMAQMD 2013).

Construction Emissions

During construction of the project, various standard types of equipment and vehicles would temporarily operate on the project site. Construction exhaust emissions would be generated from construction equipment, earth movement activities, construction worker commutes, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes PM emissions. As construction of the Proposed Project would generate air pollutant emissions intermittently within the alignment and vicinity of the alignment, until all construction has been completed, construction is a potential concern because the Proposed Project is in a non-attainment area for ozone and PM.

The project is required to comply with all PCAPCD rules and regulations for construction, including, but not limited to Rule 202 related to visible emissions and Rule 228 related to fugitive dust, which would be noted on City-approved construction plans. In addition, the City has adopted construction standards that apply to all projects within the City limits that require projects to meet specific engineering and design requirements. The Proposed Project would be required to comply with the City's Department of Public Works Construction Standards, Section 111, that are intended to minimize fugitive dust and PM₁₀ emissions during construction activities. Compliance with the engineering and design requirements would be noted on City-approved construction plans as well.

As shown in **Table 1** above, the PCAPCD-recommended threshold of significance for construction is 82 pounds per day for ROG, NOX, and PM₁₀ and 550 pounds per day for CO (PCAPCD 2012). **Table 2** below presents the estimated construction-related emissions of ROG, NOX, PM₁₀, and CO resulting from the Proposed Project.

Table 2 — Maximum Unmitigated Project Construction Emissions

Pollutant	Project Emissions (lbs/day)	PCAPCD Significance Threshold (lbs/day)
ROG	2.4	82.0
NO _x	19.7	82.0
PM ₁₀	3.2	82.0
CO	11.5	550.0

Source: Road Construction Emissions Model, August 2014 (**Appendix B**).

As shown in **Table 2**, the project's associated short-term construction-related emissions would be well below the PCAPCD thresholds of significance. Therefore, construction activities associated with development of the Proposed Project would not substantially contribute to the PCAPCD's non-attainment status for ozone or PM. Because the Proposed Project would not result in emissions above the PCAPCD's recommended thresholds of significance and would comply with PCAPCD rules and regulations for construction, the project would be considered to result in a **Less Than Significant Impact** associated with construction emissions.

Operational Emissions

Operational emissions of ROG, NOX, CO, and PM₁₀ are generated by mobile and stationary sources, including day-to-day activities such as vehicle trips to and from a project site, natural gas combustion from heating mechanisms, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, cleaning products, spray paint, etc.). However, as discussed previously, the Proposed

Project would not significantly modify the existing land use or operations on the project site. Thus, the Proposed Project would not involve mobile, stationary, or area sources and new operational emissions would not occur. Therefore, the Proposed Project would be considered to result in a **Less Than Significant Impact** associated with operational emissions.

Conclusion

The Proposed Project would not exceed the applicable thresholds of significance for air pollutant emissions during construction or operation. The Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, implementation of the Proposed Project would result in a **Less Than Significant** related to air quality. No mitigation is required.

- c. **Less Than Significant Impact.** The Proposed Project is within a non-attainment area for ozone and PM. The growth and combined population, vehicle usage, and business activity within the non-attainment area from the project, in combination with other past, present, and reasonably foreseeable projects within the City of Roseville and surrounding areas, could either delay attainment of the standards or require the adoption of additional controls on existing and future air pollution sources to offset emission increases.

The Proposed Project would only involve emissions during construction, as the proposed trail would not require frequent maintenance and would not involve operation emissions. Construction emissions are a one-time release and would occur temporarily (approximately three months in this case). Accordingly, the incremental contribution of the Proposed Project's construction-related emissions would not be cumulatively considerable. Therefore, the Proposed Project would result in a **Less Than Significant Impact**, cumulatively. No mitigation is required.

- d. **Less Than Significant Impact.** As presented above, CO emissions were determined to be well below thresholds during both construction and operation of the Proposed Project. Emissions of CO results from the incomplete combustion of carbon-containing fuels such as gasoline or wood and are particularly related to traffic levels. The proposed trail would connect to the existing Pleasant Grove Creek Trail within an existing park and would be accessible to pedestrians and bicyclists through Bent Tree Drive; therefore, the Proposed Project would not result in a land use which would be unique to the community and would not generate a substantial increase in vehicle trips to the area. Accordingly, the Proposed Project would not cause substantial levels of CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

Toxic Air Contaminants (TACs) are a category of environmental concern as well. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommendations for citing new sensitive land uses near sources typically associated with significant levels of TAC emissions, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards (CARB 2005). The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

Because the Proposed Project does not involve on-site operations other than recreational use by pedestrians and bicyclists, long-term operation of any stationary diesel engine or other major on-site stationary source of TACs would not occur. Emissions of DPM resulting from construction-related equipment and vehicles would be temporary and sensitive receptors from the surrounding neighborhood would not be exposed to substantial long-term concentrations of DPM emissions associated with construction of the Proposed Project.

Furthermore, the Proposed Project would not introduce any sensitive receptors to the area, and, thus, would not expose sensitive receptors to any existing sources of substantial pollutant concentrations.

In conclusion, the Proposed Project would not introduce sensitive receptors to the area and would not generate substantial levels of pollutant concentrations that would expose existing sensitive receptors in the area. Therefore, impacts related to exposing sensitive receptors to substantial pollutant concentrations would be a **Less Than Significant Impact**. No mitigation is required.

- e. **Less Than Significant Impact.** While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. Project-related odor emissions would be limited to the construction period, when emissions from equipment may be evident in the immediately surrounding area. These activities would be short-term and are not likely to result in nuisance odors that would violate PCAPCD odor regulations. This impact is therefore considered to be a **Less Than Significant Impact**. No mitigation is required.

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3.4 Biological Resources

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

Discussion of Checklist Answers:

- a. **Less Than Significant Impact With Mitigation Incorporated.** Based on a records search of the California Natural Diversity Database (CNDDDB), the U.S. Fish and Wildlife Service (USFWS), and California Native Plant Society (CNPS) lists as well as field observations, several special-status species are found to have the potential to occur onsite or in the vicinity of the site. The CNDDDB special-status species occurrences in the project vicinity are shown on Figure 4 of the attached *Biological Resources Assessment* [for the] *Hughes Park Trail Project, City of Roseville, Placer California* which was prepared by Foothill Associates October 29, 2014 (**Appendix C**). The following set of criteria has been used to determine each species potential for occurrence on the site:

Present: Species known to occur within the project alignment, based on CNDDDB records, and/or was observed on the site during the field survey(s).

High: Species known to occur within or near the project alignment (based on CNDDDB records within 5 miles and/or based on professional expertise specific to the project alignment or species) and there is suitable habitat on the site.

Low: Species known to occur in the vicinity of the project alignment and there is marginal habitat within the project alignment. **-OR-** Species is not known to occur in the vicinity of the alignment; however, there is suitable habitat on the site.

None: Species is not known to occur on or in the vicinity of the project alignment and there is no suitable habitat within the project alignment. **-OR-** Species was surveyed for during the appropriate season with negative results. **-OR-** Species is not known in Placer County. **-OR-** The project alignment occurs outside of the geographic or elevation ranges for the species.

Only those special-status plants and wildlife species that are known to be present or that have a high or low potential for occurrence will be discussed in further detail below.

Special-Status Plants

Based on field observations and literature review it has been determined that one species, dwarf downingia (*Downingia pusilla*) has a high potential to occur within the project alignment and one species, Ahart's dwarf rush (*Juncus leiospermus* var. *ahartii*) has a low potential to occur within the project alignment.

Dwarf Downingia

Dwarf downingia is an annual herb found in valley and foothill grasslands occasionally on mesic soils, and in vernal pools from 3 to 1,460 feet (1 to 445 meters). The blooming period is from March through May (CNPS 2014). CNDDDB records are documented within 5 miles of the project alignment (**Appendix C**) (CDFW 2014). The annual grassland within the project alignment provides habitat for this species. This species has a high potential to occur within the project alignment.

Ahart's Dwarf Rush

Ahart's dwarf rush is an annual herb found on mesic soils in valley and foothill grassland from 98 to 329 feet (30 to 100 meters). The blooming period is from March through May (CNPS 2014). The annual grassland within the project alignment provides habitat for this species. This species has a low potential to occur within the project alignment.

Special-Status Wildlife

Species that are considered to have a high potential to occur within the project alignment include: burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus*

leucurus), and migratory birds and other birds of prey. Species that are considered to have a low potential to occur within the alignment include: California red-legged frog (*Rana aurora draytonii*), Western pond turtle (*Emys marmorata*), bank swallow (*Riparia riparia*), grasshopper sparrow (*Ammodramus savannarum*), tricolored blackbird (*Agelaius tricolor*), and special-status bat species.

Burrowing Owl

Burrowing owl is a small ground-dwelling owl that occurs in western North America from Canada to Mexico and east to Texas and Louisiana. Although in certain areas of its range burrowing owls are migratory, these owls are predominantly non-migratory in California (Zeiner *et. al.* 1990). The breeding season for burrowing owls occurs from March to August, peaking in April and May (Zeiner *et. al.* 1990). Burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. Burrowing owl is also known to use artificial burrows including pipes, culverts, and nest boxes. There are two CNDDDB records for this species within 5 miles of the project alignment (**Appendix C**) (CDFW 2014). The annual grassland provides habitat for this species. Small mammal burrows were observed within the annual grassland that could be utilized by burrowing owl. No burrowing owl or sign of the owl were observed during the biological survey. This species has a high potential to occur within the annual grassland.

Swainson's hawk

Swainson's hawk is a long-distance migrant with nesting grounds in western North America. The Swainson's hawk population that nests in the Central Valley winters primarily in Mexico, while the population that nests in the interior portions of North America winters in South America (Bradbury *et. al.* in prep.). Swainson's hawks arrive in the Central Valley between March and early April to establish breeding territories. Breeding occurs from late March to late August, peaking in late May through July (Zeiner *et. al.* 1990). In the Central Valley, Swainson's hawks nest in isolated trees, small groves, or large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in urban areas as well. Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, annual grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and De Water 1994). There are four CNDDDB records for this species within 5 miles of the project alignment (**Appendix C**) (CDFW 2014). The nearest CNDDDB occurrence (occurrence number 2115) is from 2009 and is approximately 0.15 miles northeast of the project alignment. The record states that an active nest was observed within a blue oak in 2009. No Swainson's hawks were observed in the vicinity of the project alignment during the biological survey. Swainson's hawk have a high potential to nest and forage within the project alignment.

White-tailed Kite

White-tailed kite is a year-long resident in coastal and valley lowlands in California. White-tailed kite breed from February to October, peaking from May to August (Zeiner *et. al.* 1990). This species nests near the top of dense oaks, willows, or other large trees. There is one CNDDDB record of white-tailed kite listed within 5 miles of the project alignment (**Appendix C**) (CDFW 2014). The trees within the riparian woodland habitat provide nesting habitat for this species. This species has a high potential to nest within the project alignment.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, have the potential to nest in the trees within the riparian woodland and within the annual grassland. Several birds protected under the MBTA and/or Section 3503 of the California Fish and Game Code were observed foraging in the vicinity of the project alignment including: northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), and western meadowlark (*Sturnella neglecta*). Migratory birds and other birds of prey have a high potential to nest within the project alignment during the nesting season. The generally accepted nesting season is from February 15 through August 31.

California Red-Legged Frog

California red-legged frogs (CRLF) typically inhabit ponds, slow-moving creeks, and streams with deep pools that are lined with dense emergent marsh or shrubby riparian vegetation. Submerged root masses and undercut banks are important habitat features for this species. Although CRLF historically occurred throughout much of the Central Valley, it is widely accepted that they have been extirpated from there for more than 50 years. All of the extant records for CRLF in the Sierras are over 800 feet above MSL (Jennings 2013). Below this elevation, aquatic habitat generally supports stronger populations of non-native predators associated with warm water habitats such as bullfrogs (*Lithobates catesbeiana*) and Centrarchid fish (Jennings 2013). The project alignment occurs between approximately 90 to 100 feet (27 to 30 meters) above MSL.

There are no known CNDDDB occurrences for this species within 5 miles of the project alignment. There is a CNDDDB occurrence approximately 14.3 miles southeast of the project alignment along a small drainage feeding directly into the east side of Folsom Lake (Occurrence Number 814), however, the validity of this record is highly questionable due to the low elevation (approximately 500 feet above MSL), the proximity to urban development and to Folsom Lake, and the abundant nonnative predators that it supports (Jennings 2013). The record states that a juvenile frog was sighted on a small footbridge crossing a drainage leading into Folsom Lake from an adjacent residential development. This frog was most likely a juvenile bullfrog, which, to the untrained eye, can be easily confused with a juvenile CRLF (Jennings 2013). Even if this were a valid record, this location is separated from the project alignment by a number of impassible barriers including major roadways and urban development. The nearest valid CNDDDB occurrence (Occurrence Numbers 1284) is over 30 miles northeast of the project alignment. The occurrence states that CRLF was observed in a series of small pools/wet areas in a drainage stream channel. In addition, existing literature indicates that CRLF may have been extirpated from the floor of the Central Valley prior to the 1960s (USFWS 2002).

Pleasant Grove Creek provides low quality habitat for this species given the lack of deep pools and the highly scoured banks within the project alignment. The riparian woodland surrounding Pleasant Grove Creek provides marginal upland habitat given the sparse riparian vegetation. Although marginally suitable habitat is present, the project alignment is outside the known geographic range (USFWS 2002), is outside of the known extant elevation range inhabited by CRLF, and there are no known CNDDDB occurrences for CRLF within 30 miles of the project alignment. No CRLF were observed during the biological survey of the project alignment. Although unlikely, CRLF has a low potential to occur within the project alignment.

Western Pond Turtle

Western pond turtles require slow moving perennial aquatic habitats with suitable basking sites. Western pond turtles occasionally inhabit irrigation ditches. Suitable aquatic habitat typically has a muddy or rocky bottom and has emergent aquatic vegetation for cover (Stebbins 2003). Pleasant Grove Creek provides aquatic habitat and the annual grassland adjacent to the creek provides upland habitat for this species. No western pond turtles were observed within the project alignment during the biological surveys. This species has a low potential to occur within the project alignment.

Bank Swallow

Bank swallows nest in riverbanks and forage over riparian areas and adjacent uplands (Nature Serve 2014). The banks of Pleasant Grove Creek provide nesting habitat and the riparian woodland and annual grassland provide foraging habitat for this species. No bank swallows were observed during the biological survey. This species has a low potential to occur within the project alignment.

Grasshopper Sparrow

Grasshopper sparrow habitat consists of moderately open grasslands and prairies with patchy bare ground. The annual grassland provides nesting and foraging habitat for this species. No grasshopper sparrows were observed during the biological surveys of the project alignment. This species has a low potential to occur within the project alignment.

Tricolored Blackbird

Tricolored blackbird is a colonial species that occurs in pastures, dry seasonal pools, and agricultural fields in the Central Valley and the surrounding foothills. This species usually nests within dense cattails (*Typha* sp.) or tules (*Scirpus* sp.) in emergent wetlands. Tricolored blackbird also nests in thickets of blackberry (*Rubus* sp.), wild rose (*Rosa* sp.), willows, and tall herbs (Zeiner *et. al.* 1990). Nesting locations typically must be large enough to support a minimum colony of approximately 50 pairs (Zeiner *et. al.* 1990). There is one CNDDDB record for this species within 5 miles of the project alignment (**Appendix C**) (CDFW 2014). The annual grassland provides foraging habitat for this species. The riparian woodland and the perennial drainage do not provide a sufficient size of suitable vegetation necessary to support a breeding colony. No tricolored blackbirds were observed within the project alignment. This species has a low potential to occur within the project alignment.

Special-Status Bat Species

California is home to several special-status bat species. Bat numbers are in decline throughout the U.S. due to loss of roosting habitat, habitat conversion, and habitat alteration. The trees within the riparian woodland provide roosting habitat and annual grassland provides foraging habitat for special-status bats. No bat species were observed roosting during the biological survey of the project alignment. These species have a low potential to roost within the project alignment.

Conclusion

Implementation of **Mitigation Measure 4.5-4** and **Mitigation Measures BR — 1 through 7** would require pre-construction surveys for each of the species discussed above. These measures would reduce impacts to special-status species to less than significant level. Therefore, impacts to special-status species are considered to be a **Less Than Significant Impact With Mitigation Incorporated**.

- b. **Less Than Significant Impact With Mitigation Incorporated.** The project site contains several biological communities including annual grassland, potential jurisdictional waters of the U.S., riparian woodland and oak trees.

Annual Grassland

The project alignment is comprised of 0.748 acre of California annual grassland alliance, which is characterized primarily by an assemblage of non-native grasses and herbaceous species (**Figure 7**). Dominant vegetation includes: medusahead (*Elymus caput-medusae*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and wild oat (*Avena fatua*).

Riparian Woodland

The project alignment is comprised of approximately 0.018 acre of riparian woodland along Pleasant Grove Creek (**Figure 7**). Dominant hydrophytic vegetation includes: ryegrass (*Festuca perennis*), curly dock (*Rumex crispus*), canary grass (*Phalaris* sp.), nutsedge (*Cyperus eragrostis*), annual beard grass (*Polypogon monspeliensis*), and cocklebur (*Xanthium* sp.). Overstory vegetation occurring along the riparian area includes interior live oak (*Quercus wislizeni*) and valley oak (*Quercus lobata*).

Pleasant Grove Creek

A total of 0.008 acre of Pleasant Grove Creek, a riverine perennial stream, occurs within the project alignment (**Figure 7**). Perennial drainages have well-defined channels that exhibit an ordinary high water mark and generally contain water year round. The water table is located above the stream bed for most of the year. Generally, groundwater is the primary source of water for streamflow and rainfall runoff is a supplemental source of water for stream flow. Pleasant Grove Creek has a continuous flow, or near continuous flow. Pleasant Grove Creek within the project alignment contains sparsely

hydrophytic vegetation within and along the scoured banks including the vegetation identified under the Riparian Woodland biological community.

Riverine Seasonal Wetland

A total of 0.003 acre of riverine seasonal wetland occurs within the project alignment (**Figure 7**). The riverine seasonal wetland receives water from the residential irrigation and stormwater runoff from the road to the west and the residential development to the north. The riverine seasonal wetland drains south through the project site, continues southward, and drains to Pleasant Grove Creek. Dominant hydrophytic vegetation includes ryegrass (*Festuca perennis*).

Ephemeral Drainage

A total of 0.001 acre of ephemeral drainage occurs within the project alignment (**Figure 7**). The ephemeral drainage within the project alignment originates from an approximately 6-inch culvert, extends northward, and drains to Pleasant Grove Creek. The bed and banks are barely evident along the ephemeral drainage. Dominant vegetation consists of upland species including wild oat and riggut brome.

Conclusion

As discussed in further detail in subsection e, the City will comply with Chapter 19.66 (Tree Preservation) of Article IV (Special Area and Special Use Requirements) of Title 19 (Zoning) in the Roseville Municipal Code as applicable in order to avoid impacts to the riparian woodland and in order to mitigate for the removal of native oak trees.

Mitigation Measure 4.5-2 would require the implementation of construction protocols in order to protect oak woodlands as well as riparian and open space zones. Additionally, **Mitigation Measure BR — 8 and BR — 9** require that the City coordinate with the U.S. Army Corps of Engineers (USACE), the Central Valley Regional Water Quality Control Board (CVRWQCB) and the California Department of Fish and Wildlife (CDFW), in order to ensure that any impacts to the Pleasant Grove Creek or to the riparian woodland along the bank of the creek are less than significant.

Compliance with the Federal Clean Water Act (CWA), State Fish and Game Code and the City of Roseville Tree Ordinance will ensure that any impacts to sensitive natural communities within the project site would be **Less Than Significant With Mitigation Incorporated**. No further mitigation is required.

- c. **Less Than Significant Impact With Mitigation Incorporated.** In order to create a culvert crossing for pedestrian and bicyclist use, the Proposed Project would require the riverine seasonal wetland feature to be piped within a 24-inch reinforced concrete pipe. Creation of this culvert crossing would result in impacts to waters of the U.S. Construction of the bridge would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek and no impacts as a result of the bridge construction are anticipated. Excavation of the flood control excavation area would also result in impacts to the onsite ephemeral drainage feature.

Through the implementation of **Mitigation Measure BR — 8 and BR — 9**, the City will coordinate with the regulatory agencies with jurisdiction in order to ensure no net loss of wetlands and full compliance with CWA Sections 401 and 404. Impacts to water quality are considered **Less Than Significant With Mitigation Incorporated**, and no further mitigation is required.

- d. **Less Than Significant Impact.** According to the *Biological Resources Assessment* prepared by Foothill Associates October 29, 2014, there are no fish species known to occur within the project alignment. No work would be conducted within the OHWM of the creek and the bridge is not anticipated to interfere with the movement of resident or migratory fish or wildlife species.

The City will coordinate with the required agencies as a part of the CWA permitting processes. Impacts are therefore considered **Less Than Significant** and no mitigation is required.

- e. **Less Than Significant Impact With Mitigation Incorporated.** Chapter 19.66 (Tree Preservation) of Article IV (Special Area and Special Use Requirements) of Title 19 (Zoning) in the Roseville Municipal Code includes regulations controlling the removal and preservation of trees within the City of Roseville. A Protected Tree is defined in the Roseville Municipal Code as 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.

Bridge construction would result in the removal of two protected interior live oak trees. One interior live oak is in fair to poor condition and is comprised of a multi-trunk of 2.5, 9, and 11 inch DBHs. The other interior live oak is in fair condition and is comprised of a multi-trunk of 9, 4, and 2 inch DBHs. In addition, excavation activities associated with the flood control excavation area would occur within the dripline of an interior live oak in fair condition and comprised of a multi-trunk of approximately 12, 5, 8, and 10 inch DBHs.

The grading of the flood control excavation area adjacent to the creek and upstream of the proposed bridge as a part of the flood control Applicant-Proposed Minimization Measure (**APM — 1**) (discussed further in the **Hydrology and Water Quality Section (Section 3.9)** of this document), would result in the loss of 27 native oak trees planted as mitigation including: 26 1 inch DBH oak trees and one 2 inch oak tree. Following the completion of grading of the area for **APM — 1**, the oak seedlings will be replanted within the flood control excavation area.

Implementation of **Mitigation Measure 4.5-2** would require the implementation of construction protocols in order to protect preserved oak woodlands and trees within the riparian zone which are not planned for removal. Implementation of **Mitigation Measure BR — 10** and **BR — 11** will ensure that the City will mitigate for the loss of the two interior live oaks trees in compliance with the City's Tree Preservation Ordinance. In addition, the implementation of **BMP — 2** will ensure that trees not planned for removal, or otherwise identified as impacted, would be avoided or compensated for if necessary:

BMP — 2: Comply with Requirements of the Tree Preservation Chapter of the Roseville Zoning Ordinance

The City will require that the contractor comply with requirements of the City of Roseville Tree Ordinance, including avoidance, minimization, or compensation for the removal or disturbance of native oak trees greater than six inches diameter at breast height (DBH) during construction. If native oak trees will be affected by the project, the contractor will be required to prepare a tree mitigation plan that identifies trees that qualify for protection and specifies mitigation for impacts, including temporary construction impacts associated with any work required within the drip like of native oaks. For any oak trees that would be removed, the City will mitigate the impact through either onsite planting or use of the City's In-lieu fee program.

The City will offset the loss of any oak tree through on-site planting or the use of the City's in-lieu fee program. Implementation of **Mitigation Measure BR — 10 and BR — 11** as well as **BMP — 2** will reduce potential impacts to native oak trees to a **Less Than Significant With Mitigation Incorporated**. No further mitigation is required.

- e. **No Impact.** There are no approved Habitat Conservation Plans, Natural Conservation Community Plans, or other adopted plans applicable to the Proposed Project. Therefore, there will be **No Impact** and no mitigation is required.

Mitigation Measures:

The *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) identifies the following Mitigation Measures to reduce potential impacts to biological resources relevant to the Proposed Project:

MM 4.5 — 2: Implementation construction protocols

The Proposed Project shall require the implementation of construction protocols that include, but may not be limited to, the following:

- Restrict construction activities to areas away from preserved oak and riparian habitat.

Construction activities in the vicinity of oak trees shall be minimized. Laydown, staging, refueling and parking areas shall not be located adjacent to open space or riparian zones. Construction activities that by necessity occur in the vicinity oak woodlands and riparian zones to be preserved shall be supervised by an on-site responsible compliance officer designated by the developer. Encroachments or damage that have not been authorized by a tree permit shall be prohibited, and measures to prevent damage to trees in the vicinity shall be implemented as detailed in the Tree Preservation Chapter of the Zoning Ordinance.

- Erect temporary barrier fencing to delimit protected areas.

Temporary fencing, consisting of five-foot orange construction drift fence, flagging, signs, or other markings shall be erected around open space areas and restricted areas, and maintained for the duration of construction, to prevent inadvertent damage to natural resources. Fencing shall be maintained, and shall be the responsibility of an on-site compliance officer designated by the developer.

MM 4.5 — 4: Conduct pre-construction nest survey and implement appropriate restrictions

To ensure that fully protected species are not injured or disturbed by construction in the vicinity of nesting habitat, the applicant shall implement the following measures:

- a) When feasible, all tree removal shall occur between August 30 and March 15 to avoid to breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. This period may be modified with the authorization of the Fish and Wildlife Service (formerly the Department of Fish and Game), or
- b) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between March 15 to August 30, all trees within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests by a qualified biologist. If active raptor nests are found, and the site is within 350 feet of potential construction activity, a fence shall be erected around the tree at a distance up to 350 feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined by the City. The City may consult with California Department of Fish and Wildlife (CDFW) (formerly California Department of Fish and Game) regarding the appropriate buffer distance.

- c) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zone), unless directly related to the management or protection of the legally-protected species.
- d) In the event that a nest is abandoned, despite efforts to minimize disturbance, and if the nestlings are still alive, the developer shall contact CDFW and, subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the nestling(s).

For tree removal, the following measure shall be implemented:

- e) If a legally-protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30, or until the adults and young of the year are no longer dependent on the nest site as determined by a qualified biologist.

In addition, Mitigation Measure BR — 1 through BR — 11 are identified to reduce potential impacts related to biological resources:

MM BR — 1: Special-Status Plants

The annual grassland within the project alignment provides habitat for potentially occurring non-listed special-status plants including: Ahart's dwarf rush (blooms March through May) and dwarf downingia (blooms March through May). A qualified botanist shall conduct a single botanical survey of the project alignment some time between March and May within the blooming period for potentially occurring special-status plants. A letter report shall be submitted to the applicant within 30 days following the bloom survey to document the results. If no special-status plants are observed, then no additional measures are recommended.

If any of the non-listed special-status plants occur within the project site, they shall be avoided to the extent feasible. If the plants cannot be avoided, a mitigation plan shall be prepared in consultation with the CDFW. At minimum, the mitigation plan will include locations where the plants will be transplanted in suitable habitat adjacent to the project site, success criteria, and monitoring activities. The CDFW must approve the mitigation plan prior to transplantation and commencement of construction activities.

MM BR — 2: California Red-Legged Frog

A qualified biologist shall conduct a pre-construction survey for CRLF within 14 days prior to the start of excavation and grading activities or work associated with spanning the bridge over Pleasant Grove Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days, a new survey will be required. If no CRLF are found, no additional measures are required.

If CRLF are found, consultation with the USFWS would be required. Construction would be delayed until the USFWS authorizes the work.

MM BR — 3: Western Pond Turtle

Within 14 days prior to the start of ground disturbance, a qualified biologist shall conduct a pre-construction survey for Western pond turtles. Ground disturbance includes any grading and excavation activities and any work associated with spanning the bridge over Pleasant Grove Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14

days, a new survey will be required. If no Western pond turtles are found, no additional measures are required.

If Western pond turtles are found, consultation with the CDFW is recommended to determine avoidance measures. These measures may include having a qualified biologist onsite during grading activities and work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area for the purpose of relocating any species found within the construction footprint to suitable habitat away from the construction zone, but within the vicinity of the project alignment.

MM BR — 4: Burrowing Owl

A qualified biologist shall conduct burrowing owl surveys during the peak breeding season (April 15 and July 15), in accordance with the 2012 *California Department of Fish and Game Staff Report on Burrowing Owl Mitigation* (2012 Staff Report) (CDFG 2012). The survey area includes an approximately 500-foot (150-meter) buffer around the project alignment, where access is permitted. The report will be submitted to the CDFW, as indicated in the 2012 Staff Report. If the surveys are negative, then no additional measures are recommended.

If active burrows are observed within 500 feet of the project alignment, an impact assessment will be prepared and submitted to the CDFW, in accordance with the 2012 Staff Report. If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the applicant will consult with the CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan will be based on the requirements set forth in Appendix A of the 2012 Staff Report.

MM BR — 5: Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including bank swallow, grasshopper sparrow, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Foraging habitat is not protected for these species as well as for tricolored blackbird. Vegetation clearing operations, including pruning or removal of trees and shrubs, should be completed between September 1 to February 14, if feasible. If vegetation removal begins during the nesting season (February 15 to August 31), a qualified biologist shall conduct a pre-construction survey for active nests within 500 feet of the project alignment. The pre-construction survey will be conducted within 14 days prior to commencement of vegetation removal. In addition, a pre-construction survey should be conducted within 14 days prior to commencement of excavation activities associated with the flood control excavation area and work associated with the bridge installation over Pleasant Grove Creek, if these project activities are anticipated to commence during the nesting season. If the pre-construction surveys show that there is no evidence of active nests, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey would be recommended.

If any active nests are located within the vicinity of the project alignment, an appropriate buffer zone will be established around the nests. The biologist will delimit an appropriate buffer zone with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests, excluding Swainson's hawk. If active nests are found on site, a

qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. Guidance from the CDFW would be recommended if establishing the typical buffer zone is impractical.

MM BR — 6: Swainson’s hawk

A qualified biologist shall conduct a protocol level preconstruction survey during the recommended survey period immediately prior to the anticipated commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley* (Swainson’s Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct the survey for nesting Swainson’s hawk in the project alignment and within 0.25 miles of construction activities where legally permitted. If no active Swainson’s hawk nests are identified on or within 0.25 miles of construction activities within the recommended survey period, a letter report summarizing the survey results will be submitted to the applicant and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is recommended.

If active Swainson’s hawk nests are found within 0.25 miles of the project alignment, the biologist will contact the applicant and the CDFW within one day following the pre-construction survey to report the findings. Construction activities include heavy equipment operation associated with construction or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of an active nest site. Should an active nest be present within 0.25 miles of construction areas, then the CDFW will be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. The monitoring program will include an onsite biologist to monitor all grading activities, work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area that occur within the established buffer zone to ensure that disruption of the nest or forced fledging does not occur.

MM BR — 7: Special-Status Bat Species

The trees within the riparian woodland provide roosting habitat for special-status bats. Pre-construction surveys for special-status bat species are recommended within 14 days prior to the start of ground disturbance and tree removal. If no bats are observed, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days a new survey will be required.

If bats are found, consultation with the CDFW is recommended to determine avoidance measures. Recommended avoidance measures include establishing a buffer around the roost tree until it is no longer occupied. If the bat is roosting in a tree anticipated for removal, then that tree will not be removed until a biologist has determined that the tree is no longer occupied by the bat.

MM BR — 8: Impacts to Jurisdictional Waters of the U.S.

Placement of permanent or temporary fill in waters of the U.S. is regulated by the U.S. Army Corps of Engineers (USACOE) under Section 404 of the Federal Clean Water Act (CWA). The City shall coordinate with the USACOE in order to obtain the applicable permits for activities resulting in temporary and/or permanent impacts to waters of the U.S. The project shall comply with the USACOE “no net loss” policy and the conditions of a Nationwide or Individual Permit authorization by the USACOE.

Any discharge into waters of the U.S. is also subject to regulation by the Central Valley Regional Water Quality Control Board (CVRWQCB) pursuant to CWA Section 401. The City shall also coordinate with the CVRWQCB in order to obtain a Water Quality Certification.

MM BR — 9: Impacts to the Riparian Woodland

Pursuant to Fish and Game Code §1602, the City shall notify the California Department of Fish and Wildlife (CDFW) prior to any activity which may adversely impact a river, lake or stream. The City will coordinate with CDFW in order to obtain a 1600 Streambed Alteration Agreement, if applicable, for impacts to the riparian woodland adjacent to the creek.

MM BR — 10: Native Oak Tree Mitigation

The City will comply with the City's Tree Preservation Ordinance as applicable, including avoidance, minimization, or compensation for the removal or disturbance of native oak trees greater than 6 inches DBH during construction. If native oak trees will be affected by the project, the City will be required to prepare a tree mitigation plan that identifies trees that qualify for protection and specifies mitigation for impacts. For any oak trees that would be removed, the City will offset potential adverse impacts through either on-site planting, the preparation of a revegetation plan or the use of the City's in-lieu fee program.

MM BR — 11: Mitigation Oak Tree Relocation

The 27 native oak trees which are proposed for replanting or relocation shall be replanted and monitored consistent with the City's Tree Preservation Ordinance including a five-year monitoring requirement and replacement if applicable.



BIOLOGICAL COMMUNITIES



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3.5 Cultural Resources

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

Discussion of Checklist Answers:

a,b. Less Than Significant With Mitigation Incorporated. Based on an October 2014 Records Search, no historic or archaeological resources are identified within the project site. A pedestrian survey of the project site in October 2014 identified two historic ditch features.

Hughes-1 (Ditch): This minor historic archaeological resource is a largely deflated, earthen ditch remnant that parallels the southeast bank of Pleasant Grove Creek. The ditch remnant is approximately five feet wide across the top, two feet wide across the bottom, 12 inches deep and 120 feet long. The ditch is heavily eroded, which accounts for its deflated appearance.

Hughes-2 (Ditch System): This minor historic archaeological resource is the remnants of one and in one place, two closely parallel earthen ditches that parallel the northwest side of a small, deeply entrenched drainage along the southeast side of Pleasant Grove Creek. This ditch system remnant is 4-5 feet wide across the top, 1.5-2.0 feet wide across the bottom and averages 18 inches deep. The banks of the ditch system are not heavily eroded or deflated as with the appearance of Hughes-1.

These minor historic features appear to be remnant of previous agricultural activities however, and neither is considered eligible for listing under State or federal criteria. However, it is possible that ground-disturbing activities may inadvertently uncover buried and previously unidentified cultural resources. In the event that construction activities occur within previously undisturbed soils and buried cultural resources are discovered, such resources could be damaged or destroyed, potentially resulting in significant impacts on cultural resources. Implementation of the *North Roseville Specific Plan Environmental Impact Report Mitigation Measure 4.6 — 1* stated below would cease work in the event of a discovery and would require consultation with a Qualified Archaeologist to assess the resource and provide management recommendations (EIP Associates 1997). Implementation of

Mitigation Measure 4.6 — 1 would reduce potential impacts to historical and archaeological resources to ***Less Than Significant With Mitigation Incorporated***.

- c. **Less Than Significant With Mitigation Incorporated.** It is possible that ground-disturbing activities may inadvertently uncover previously unidentified buried paleontological resources (i.e. fossils). In the event that construction activities occur within previously undisturbed soils and buried paleontological resources are discovered, such resources could be damaged or destroyed, potentially resulting in significant impacts to paleontological resources. Implementation of **Mitigation Measure CR — 1** below would reduce impacts to ***Less Than Significant With Mitigation Incorporated***.
- d. **Less Than Significant With Mitigation Incorporated.** There are no known formal cemeteries within the project area. However, the possibility that ground-disturbing activities during construction may inadvertently uncover previously unidentified and buried human remains exists, and this inadvertent discovery would be considered a potentially significant impact. Implementation of **Mitigation Measure CR — 2** would reduce this impact to ***Less Than Significant With Mitigation Incorporated***.

Mitigation Measures:

No known cultural resources are present within the project area. However, grading and excavation activities associated with project development may result in the inadvertent discovery of cultural resources.

The *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) identifies the following Mitigation Measure to reduce potential impacts related to cultural resources relevant to the Proposed Project:

MM 4.6 — 1: Cease Work and Consult a Qualified Archaeologist

In the event of the discovery of buried archaeological deposits it is recommended that project activities in the vicinity of the find should be temporarily halted and a Qualified Archaeologist consulted to assess the resource and provide proper management recommendation. Possible management recommendations for important resources could include resource avoidance or data recovery excavations.

In addition, **Mitigation Measure CR — 1 and CR — 2** are proposed to ensure potential impacts to paleontological and cultural resources remain less than significant.

MM CR — 1: Previously Unidentified Paleontological Resources

The City shall ensure construction specifications shall include the following information in the grading notes:

- If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities on the project site, activities will stop immediately until a state-registered Professional Geologist or Qualified Professional Paleontologist can assess the nature and importance of the find and a Qualified Professional Paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The City will be responsible for ensuring that recommendations regarding treatment and reporting are implemented.

MM CR — 2: Inadvertent Discovery of Human Remains

The City shall ensure construction specifications include the following in the grading notes:

- If human remains are discovered during any phase of construction, including disarticulated or cremated remains, the construction contractor shall immediately cease all ground-disturbing activities within 100 feet of the remains and notify Mark Morse, Environmental Coordinator, City of Roseville City Manager's Office.
- In accordance with California State Health and Safety Code Section 7050.5, no further disturbance shall occur until the following steps have been completed:
 - The County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) § 5097.98.
 - If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. It is further recommended that a professional archaeologist with Native American burial experience conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including but not limited to, the excavation and removal of the human remains.

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3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Section 1803.5.3 of the 2010 CBC, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Checklist Answers:

- a. **Less Than Significant Impact.** Several faults have been identified within 60 miles of the Sacramento area. However, no known active faults are located in Placer County, including the project vicinity. The south Placer County area is classified as a low-severity earthquake zone. Three inactive faults lie within the immediate Roseville vicinity: the Volcano Hill Fault, extending approximately one mile northwesterly from just east of the Roseville City Limits; the Linda Creek Fault, extending along a portion of Linda Creek through Roseville and a portion of Sacramento County; and an unnamed fault extending east to west between Folsom Lake and Rocklin. Portions of this fault are concealed, but they are possibly connected to the Bear Mountain Fault near Folsom Lake. No Alquist-Priolo Earthquake Fault Zones are located in Roseville or Placer County.

The project site is not expected to experience faulting, strong ground shaking, seismically related ground failure, or liquefaction. According to the *Biological Resources Assessment* [for the] *Hughes Park Trail Project, City of Roseville, Placer California*, prepared by Foothill Associates October 29, 2014 (**Appendix C**), the Proposed Project site is located on soils classified as Cometa-Fiddymment Complex, 1 to 5 percent slopes, Xerofluvents, Occasionally Flooded, and Xerofluvents, Frequently Flooded.

The Cometa-Fiddymment Complex, 1 to 5 percent slopes occurs on low terraces at elevations from 75 to 200 feet. The Cometa soil is a well drained claypan soil that formed in alluvium, mainly from granitic sources. Permeability is very slow and available water capacity is four to six inches. The Fiddymment soil is a well drained soil that is moderately deep over hardpan (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).

Xerofluvents, Occasionally Flooded soils consist of narrow stringers of somewhat poorly drained recent alluvium adjacent to stream channels. Depth to underlying restrictive material is greater than 36 inches. Permeability is variable. Available water capacity is 2.5 to 6 inches (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).

The Xerofluvents, Frequently Flooded soil unit generally consists of small areas of moderately well drained loamy alluvium adjacent to stream channels. Depth to underlying restrictive material is greater than 60 inches. Permeability is moderate to moderately slow. Available water capacity is 8 to 10 inches (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).

Further, site-specific geotechnical information prepared for the project has been incorporated into project design to ensure compliance with applicable California Building Code (CBC) regulations for seismic safety as well as the City of Roseville Design and Construction Standards. Impacts are therefore considered to be a **Less Than Significant** and no mitigation is required.

- b. **Less Than Significant Impact.** Construction of the Proposed Project would involve the grading and paving of the trail segment, the placement of a storm drain pipe and associated headwalls and trash guards, the construction of a swale, the placement of beams and concrete abutments in support of a bridge and the removal and replacement of existing pavement at the Pleasant Grove Creek Trail connection. During construction of the Proposed Project, several erosion and sediment control BMPs will be implemented. The preparation of a Stormwater Pollution Prevention Plan (SWPPP) is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Permit administered by the State Water Resources Control Board. The SWPPP will identify structural and non-structural BMPs to control erosion. Erosion and sediment control BMPs state that construction shall not commence until the SWPPP has been approved by the City and that the SWPPP must be kept onsite at all times during construction. They also include measures to prevent erosion and topsoil loss such as hydroseeding and the use of broadcast straw and broadcast seed. The following BMPs are relevant to soil erosion:

BMP — 1: Erosion and Sediment Control

- The State’s General Permit for stormwater discharges associated with construction activity (WQD 99-080-DWQ) requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for sites with soil disturbances greater than or equal to one acre, or from sites smaller than one acre if the construction activity is part of a larger plan of development or sale that disturbs one acre or more. Construction activity shall not commence, nor is a pre-construction meeting permitted to be scheduled, prior to the SWPPP being accepted by the City.
- A copy of the SWPPP shall be kept at the project site at all times.
- All slopes greater than 10:1 shall be covered with broadcast straw at a rate of 50 bales or 4,000 pounds per acre. For slopes 4:1 or steeper, straw shall be pressed in place. Other methods shall be approved by the City of Roseville Engineering Division.
- Slopes steeper than 4:1 and adjacent to City right-of-ways, flood plains, natural drainages, park land or designated open space shall be hydroseeded.
- All bare areas, regardless of slope, within 50 feet of natural drainages shall be covered with straw and pressed in place.
- Where required, broadcast seed shall be applied as follows:
 - Blando Brome: 6 lbs/acre
 - Rose Clover: 9 lbs/acre
- Areas with sandy, dry soil shall be:
 - Zorro Annual Fescue: 6 lbs/ acre
 - Rose Clover: 9 lbs/acre
- No grading or trenching, except as required for erosion or sediment control, shall occur within 35 feet from the centerline of perennial and intermittent drainage swales between October 5 and April 1 except as approved by State and Federal permitting agencies.
- All erosion and sediment control measures shall be checked following all storms to ensure that all measures are functioning properly.
- Sediment and trash accumulated in drainages or detention basins shall be removed as soon as possible. In addition, oil and material floating on water surface must be skimmed weekly and the debris properly disposed of.
- Construction activities occurring between October 15 and April 1 shall have erosion and sediment control measures in place or capable of being placed within 24 hours. The contractor shall ensure that the construction site is prepared prior to the onset of any storm.
- The contractor shall establish a specific site within the development for maintenance and storage of equipment or any other activity that may adversely contribute to the water quality of the runoff. This area shall have a berm located

around its perimeter. This area shall be restored to acceptable condition upon completion of project.

In addition, the Proposed Project will comply with the City's Design and Construction Standards, which prescribe erosion/sediment control and grading requirements addressing erosion. Impacts would therefore be considered to be **Less Than Significant** and no mitigation is required.

- c. **Less Than Significant Impact.** Lateral spreading, a phenomenon associated with liquefaction, subsidence, or other geologic or soils conditions that could create unstable subsurface conditions that could affect Proposed Project features, is not a significant hazard for the project site. During project design and prior to construction, the City will ensure the design specifications in the site-specific geotechnical report prepared for the project are implemented, in accordance with the City of Roseville Design and Construction Standards. Impacts would therefore be considered **Less Than Significant** and no mitigation is required.
- d. **No Impact.** The project site is not located in an area of expansive soils and would not expose people to risk related to potential geologic impacts. **No Impact** would result from project development and no mitigation is required.
- e. **No Impact.** The Proposed Project would involve the construction of a paved or DG trail alignment, including a culverted crossing and a bridge. Therefore, **No Impact** on soils related to the use of septic tanks would occur. No mitigation is required.

3.7 Greenhouse Gas Emissions

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

Discussion of Checklist Answers:

a,b. Less Than Significant Impact. There is evidence to suggest that emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and City, and virtually every individual on earth. A project’s GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

While the Proposed Project may result in increased motor vehicle travel to the park, this increase would not be substantial due to the fact that Hughes Park and the Pleasant Grove Creek Trail already exist as unique destinations within the community. The Proposed Project would not modify the existing land use and because the trail alignment would connect to the existing Pleasant Grove Creek Trail, the proposed trail would not substantially change operations within Hughes Park. Additionally, the proposed bicyclist and pedestrian trail would encourage the use of alternative modes of transportation from motor vehicles. Thus, the Proposed Project would not involve a substantial increase in mobile, stationary, or area sources and new operational emissions, including GHG emissions. Accordingly, the only increase in GHG emissions generated by the Proposed Project that would contribute to global climate change would occur during the construction phase, which would be temporary. Due to the inherently cumulative nature of global climate change, effects of which occur over a long periods of time, a project’s GHG emissions contribution is typically quantified and analyzed on an annual basis (i.e., annual operational GHG emissions). Construction-related GHG emissions are a one-time release that occurs over a short period of time; nonetheless, construction-related GHG emissions have been quantified for the Proposed Project.

The estimated construction-related GHG emissions attributable to the Proposed Project would be primarily associated with increases of CO₂ and other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O), from mobile sources and construction equipment usage. The Proposed Project’s short-term construction-related emissions were estimated using the Roadway Construction Emissions Model version 7.1.5.1, a model developed by Jones & Stokes and TIAX LLC in partnership with the Sacramento Metropolitan Air Quality Management District. The model quantifies direct GHG emissions from construction, which are expressed in tons per project of CO₂ equivalent units of measure (i.e., MTCO₂e), based on the global warming potential of the individual pollutants. This number is then converted from English tons to metric tons through the conversion factor of 0.91. The estimated increase in GHG emissions associated with construction of the Proposed Project is summarized in **Table 3**.

Table 3 — Project Total Annual Construction GHG Emissions

	CO₂ emissions (MTCO₂e)
Total Construction GHG Emissions	43.4

Source: Road Construction Emissions Model, August 2014 (**Appendix B**).

As presented in **Table 3**, short-term emissions of GHG associated with construction of the Proposed Project are estimated to be 43.4 MTCO₂e. As stated above, because construction-related GHG emissions are a one-time release that occurs over a short period of time and are typically considered separate from operational emissions, construction-related GHG emissions are not typically considered to result in a substantial contribution towards global climate change. In addition, neither the PCAPCD nor the City has established thresholds of significance for construction-related GHG emissions. Due to the inherently small size of the Proposed Project and lack of any change to annual operational emissions, the GHG emissions resulting from construction of the Proposed Project are not expected to significantly contribute to the cumulative GHG levels of the area.

For comparison purposes, multiple agencies have developed draft interim thresholds of significance for GHG emissions, including the following:

- 7,000 MTCO₂e per year according to CARB (CARB 2008);
- 3,000 MTCO₂e per year according to South Coast Air Quality Management District (SCAQMD 2008); and
- 2,500 MTCO₂e per year according to San Diego County (San Diego County 2013).

The Proposed Project's construction-related emissions would be substantially below all of the draft interim thresholds of significance listed above for GHG emissions, and would occur only one time, not annually or over multiple years. Therefore, the Proposed Project's construction-related GHG emissions are not expected to cause a significant impact.

In conclusion, operational GHG emissions would be minimal and would not change as a result of the Proposed Project; however, construction of the Proposed Project would generate GHG emissions that would contribute to the overall GHG levels in the atmosphere. Although the Proposed Project would contribute to GHG levels during construction of the Proposed Project, the incremental contribution to cumulative GHG emissions and global climate change would be minor and below established thresholds defined for the region. In addition, the GHG emissions resulting from construction of the Proposed Project would occur only once temporarily during construction. Therefore, the Proposed Project's contribution to global climate change through GHG emissions would be considered a **Less Than Significant Impact**. No mitigation is required.

3.8 Hazards and Hazardous Materials

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

intermixed with wildlands?

Discussion of Checklist Answers:

a,b. Less Than Significant Impact. The Proposed Project would involve construction activities such as site preparation, grading, paving, and bridge installation. These activities would involve the use of heavy equipment, which would contain fuels, oils, lubricants, solvents, and various other possible contaminants.

BMP — 1 below requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP), the regular disposal of sediment, trash and oil, and the establishment of an equipment storage area, in order to prevent the distribution of potentially hazardous materials.

BMP — 1: Erosion and Sediment Control

- The State's General Permit for stormwater discharges associated with construction activity (WQD 99-080-DWQ) requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for sites with soil disturbances greater than or equal to one acre, or from sites smaller than one acre if the construction activity is part of a larger plan of development or sale that disturbs one acre or more. Construction activity shall not commence, nor is a pre-construction meeting permitted to be scheduled, prior to the SWPPP being accepted by the City.
- A copy of the SWPPP shall be kept at the project site at all times.
- All slopes greater than 10:1 shall be covered with broadcast straw at a rate of 50 bales or 4,000 pounds per acre. For slopes 4:1 or steeper, straw shall be pressed in place. Other methods shall be approved by the City of Roseville Engineering Division.
- Slopes steeper than 4:1 and adjacent to City right-of-ways, flood plains, natural drainages, park land or designated open space shall be hydroseeded.
- All bare areas, regardless of slope, within 50 feet of natural drainages shall be covered with straw and pressed in place.
- Where required, broadcast seed shall be applied as follows:
 - Blando Brome: 12 lbs/acre
 - Rose Clover: 9 lbs/acreAreas with sandy, dry soil shall be:
 - Zorro Annual Fescue: 6 lbs/acre
 - Rose Clover: 9 lbs/acre
- No grading or trenching, except as required for erosion or sediment control, shall occur within 35 feet from the centerline of perennial and intermittent drainage swales between October 5 and April 1 except as approved by State and Federal permitting agencies.

- All erosion and sediment control measures shall be checked following all storms to ensure that all measures are functioning properly.
- Sediment and trash accumulated in drainages or detention basins shall be removed as soon as possible. In addition, oil and material floating on water surface must be skimmed weekly and the debris properly disposed of.
- Construction activities occurring between October 15 and April 1 shall have erosion and sediment control measures in place or capable of being placed within 24 hours. The contractor shall ensure that the construction site is prepared prior to the onset of any storm.
- The contractor shall establish a specific site within the development for maintenance and storage of equipment or any other activity that may adversely contribute to the water quality of the runoff. This area shall have a berm located around its perimeter. This area shall be restored to acceptable condition upon completion of project.

All hazardous materials used during construction would occur in compliance with the following applicable regulations:

- Compliance with the City's Multi-Hazard Mitigation Plan (approved by the Federal Emergency Management Agency) which requires contractors to transport and store materials in appropriate and approved containers along designated truck routes, maintain required clearances, and handle materials using fire department–approved protocols, as illustrated in Roseville Fire Code Ordinance 4594 (City of Roseville 2011a).
- Compliance with the City of Roseville Design and Construction Standards and the City's *Stormwater Quality BMP Guidance Manual for Construction* (City of Roseville 2011b) would be required and the Proposed Project would be required to implement the requirements of the *Placer County Flood Control and Water Conservation District's (PCFCWCD's) Stormwater Management Manual* (PCFCWCD 1994).

In addition, the City of Roseville Fire Department is the Certified Unified Program Agency (CUPA) for the City of Roseville. The Fire Department is available to respond to hazardous materials complaints or emergencies, if any, during construction.

In light of existing City ordinances, emergency planning requirements and the project-specific BMPs, combined with existing facilities/services within the project area, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and would not result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Implementation and compliance with **BMP — 1** described above would reduce any potential impacts to a **Less Than Significant Level**. No mitigation is required.

- c. **No Impact.** The Diamond Creek Elementary School is the nearest school to the project alignment and is located a little over 1/3 of a mile to the north. Cooley Middle School is located further away from the project alignment and to the south. There are no public or private schools neither located within ¼ mile of the project alignment nor are there any schools planned to be developed within ¼ mile of the project alignment according to the *Public Facilities Element* of the *City of Roseville General Plan* (City of Roseville 2010). Construction would not generate hazardous air emissions or handle acutely hazardous substances within ¼ mile of a school. Therefore, **No Impact** would result from development of the Proposed Project and no mitigation is required.

- d. **Less Than Significant With Mitigation Incorporated.** The project alignment is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the California Department of Toxic Substances Control (CDTSC) Envirostor Database, there are no known hazardous sites within the immediate vicinity of the Proposed Project alignment (CDTSC 2014).

No known hazardous material is present within the project alignment and implementation of **Mitigation Measure 4.8 — 1** outlined below from the *North Roseville Specific Plan Environmental Impact Report* would ensure that impacts resulting from a discovery of a previously unknown contaminant would be less than significant (EIP Associates 1997). Therefore, the project would result in impacts which would be considered **Less Than Significant With Mitigation Incorporated**.

- e,f. **No Impact.** The project alignment is not located within an airport land use plan area nor is it within two miles of a public airport. The project alignment is approximately two miles northeast of the privately owned Fiddymont Field Airport; however, the Proposed Project would result in a paved or DG trail alignment through Hughes Park and would not result in people living or working within vicinity of the private airport. Therefore, **No Impact** would result from development of the Proposed Project and no mitigation is required.
- g. **No Impact.** The Proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, the **No Impact** would result from development of the Proposed Project and no mitigation is required.
- h. **Less Than Significant With Mitigation Incorporated.** According to the California Department of Forestry and Fire Protection (CDFFP) Placer County Fire Hazard Severity Zone Map, the project alignment is not located in an identified fire hazard region. Implementation of *North Roseville Specific Plan Environmental Impact Report Mitigation Measure 4.8 — 2(a)* and *4.8 — 2(b)* would reduce the risk of fire due to construction equipment and fire fuel. Impacts associated with wildland fires resulting from development of the Proposed Project are considered **Less Than Significant With Mitigation Incorporated**.

Mitigation Measures:

The *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) identifies the following Mitigation Measure to reduce potential impacts related to hazards and hazardous materials relevant to the Proposed Project:

MM 4.8 — 1: Remediate site hazards, if discovered.

If evidence of soil contamination is encountered, work shall cease until the area can be tested, and if necessary, remediated. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities constructed in the Plan Area are coordinated with Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate agencies. Once the site is remediated, construction can continue. The City shall also continue to update its records concerning contamination or hazards that may be present at facilities or sites adjacent to the Plan Area, and take necessary action to ensure that the health and safety of the public is protected.

MM 4.8 — 2(a): Clear areas slated for construction activities of materials that could serve as fire fuel prior to initiating these activities.

During construction, staging areas, welding areas, or areas slated for development in the near future where equipment will be operating on dried vegetation or other materials that could serve as fire fuel would be cleared. The contractor will maintain areas subject to such construction activities clear of combustible natural materials to the extent feasible in order to maintain a fire break. This measure would minimize the availability of fire fuels.

MM 4.8 — 2(b): Require spark-generating construction equipment to be equipped with manufacturer's recommended spark arresters.

Any construction equipment that normally includes a spark arrester is to be equipped with such an arrester in good working order. This includes, but is not limited to, heavy equipment and chainsaws. This mitigation measure would minimize a source of construction-related fire.

If underground tanks or other features or materials that could present a threat to human health or the environment are discovered during construction, all work in the vicinity of the site shall stop. A qualified professional shall investigate the site and make recommendations for remediation, if necessary.

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3.9 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h. Place structures within a 100-year flood hazard area that would impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | | | |
|----|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| i. | Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| j. | Contribute to inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion of Checklist Answers:

- a. **Less Than Significant Impact.** The applicable waste discharge requirements for the Proposed Project are the Statewide General Construction Permit and the NDPEs Storm Water Management Program (SWMP), which implements the General Permit for Stormwater Discharge from the CVRWQCB.

The City's Grading Ordinance requires grading plans to include an erosion control plan to eliminate off-site flows of sediment and to reduce site erosion to protect water quality in the storm drain system, and adjacent properties. The City would require the contractor to comply with the ordinance and prepare a Stormwater Pollution Prevention Plan to meet the requirement of the City's General Permit for Stormwater Discharge from the CVRWQCB. In addition to required compliance with existing City ordinances, BMPs are intended to ensure compliance with Basin Plan Water Quality Standards and applicable NPDES requirements. BMPs relevant to erosion prevention include the following:

BMP — 1: Erosion and Sediment Control

- The State's General Permit for stormwater discharges associated with construction activity (WQD 99-080-DWQ) requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP) for sites with soil disturbances greater than or equal to one acre, or from sites smaller than one acre if the construction activity is part of a larger plan of development or sale that disturbs one acre or more. Construction activity shall not commence, nor is a pre-construction meeting permitted to be scheduled, prior to the SWPPP being accepted by the City.
- A copy of the SWPPP shall be kept at the project site at all times.
- All slopes greater than 10:1 shall be covered with broadcast straw at a rate of 50 bales or 4,000 pounds per acre. For slopes 4:1 or steeper, straw shall be pressed in place. Other methods shall be approved by the City of Roseville Engineering Division.
- Slopes steeper than 4:1 and adjacent to City right-of-ways, flood plains, natural drainages, park land or designated open space shall be hydroseeded.
- All bare areas, regardless of slope, within 50 feet of natural drainages shall be covered with straw and pressed in place.
- Where required, broadcast seed shall be applied as follows:
 - Blando Brome: 12 lbs/acre
 - Rose Clover: 9 lbs/acre

Areas with sandy, dry soil shall be:

- Zorro Annual Fescue: 6 lbs/acre
 - Rose Clover: 9 lbs/acre
- No grading or trenching, except as required for erosion or sediment control, shall occur within 35 feet from the centerline of perennial and intermittent drainage swales between October 5 and April 1 except as approved by the California Department of Fish and Wildlife (CDFW).
 - All erosion and sediment control measures shall be checked following all storms to ensure that all measures are functioning properly.
 - Sediment and trash accumulated in drainages or detention basins shall be removed as soon as possible. In addition, oil and material floating on water surface must be skimmed weekly and the debris properly disposed of.
 - Construction activities occurring between October 15 and April 1 shall have erosion and sediment control measures in place or capable of being placed within 24 hours. The contractor shall ensure that the construction site is prepared prior to the onset of any storm.
 - The contractor shall establish a specific site within the development for maintenance and storage of equipment or any other activity that may adversely contribute to the water quality of the runoff. This area shall have a berm located around its perimeter. This area shall be restored to acceptable condition upon completion of project.

Through implementation of **BMP — 1** and compliance with existing enforceable City Ordinances, combined with regulatory compliance with State and Federal regulations will ensure that project development will not result in substantial erosion or siltation. The project will result in **Less Than Significant Impact**. No mitigation is required.

- b. **Less Than Significant Impact.** The project site is located in the foothills North American Subbasin, which overlies the eastern central portion of the Sacramento Valley Groundwater Basin, which has a total surface area of approximately 351,000 acres, or 548 square miles. Groundwater recharge in the basin occurs mostly by infiltration from the Sacramento, Feather, and Bear Rivers, along with their tributaries. There are currently no artificial recharge areas for the North American Subbasin.

If the trail alignment is paved, the Proposed Project would result in approximately 0.40 acre of paved area along the trail alignment and would, therefore, not substantially increase impermeable surface cover. If the trail alignment is composed of DG instead, the Proposed Project would not result in any increase in impermeable surfaces. Whether the trail is paved or constructed with DG, the Proposed Project would not 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. Therefore, project development would result in a **Less Than Significant Impact** and no mitigation is required.

- c. **Less Than Significant Impact.** The Proposed Project includes the grading of a swale along the trail alignment in order to capture and redirect runoff from the trail. The swale would be graded starting on the west side of the trail approximately 115 feet from Bent Tree Drive and ending at the culvert opening south of the trail. On the north side of the trail the swale would start approximately 50 feet west of the proposed bridge and direct flows to the culvert opening north of the trail. The swale would be two feet wide with slopes varying between one and two percent.

Implementation of **BMP — 1** and compliance with existing enforceable City Ordinances, combined with regulatory compliance with State and Federal regulations will ensure that project development

would not result in substantial erosion or siltation. The project will result in a **Less Than Significant Impact**. No mitigation is required.

- d.f. **Less Than Significant Impact With Mitigation Incorporated.** Bridge construction would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek and would not result in impacts to the creek. However, the *William "Bill" Hughes Park Phase 2C Bent Tree Bridge Preliminary Hydrology and Hydraulic Design Report* (RBF Consulting 2014) (**Appendix D**), concluded that the bridge over Pleasant Grove Creek would result in an increase in 100-year water surface elevation of 0.01 feet. The report includes **APM — 1**, which requires the creation of a flood control excavation area in order to limit upstream impacts to City-owned properties at locations approximately 650 feet upstream from the proposed bridge. Without this measure impacts may extend 1,700 feet upstream to privately-owned properties.

APM — 1: Flood Control Mitigation

Areas upstream of the proposed bridge location will be regraded to slope at 0.8 percent towards the creek for 50 feet, and then remain 6-inches below existing grade for an area 60 feet wide (parallel to the creek) and 180 feet long (perpendicular to the creek).

The flood control excavation area would be located along the bank of the Pleasant Grove Creek within the riparian woodland area. **Mitigation Measure BR — 9** (discussed in the **Biological Resources Section (Section 3.4)**) is required in order to reduce impacts to the riparian woodland area along the bank of Pleasant Grove Creek. **Mitigation Measure BR — 9** would require the City to coordinate with CDFW in order to obtain a 1600 Streambed Alteration Agreement which would address potential impacts to riparian resources.

The Proposed Project would also require a culvert crossing over the seasonal wetland feature within the trail alignment. In order to create a culvert crossing for pedestrians and bicyclists, the seasonal wetland would be piped within a 24-inch reinforced concrete pipe with a headwall, trash rack and rip rap placed at each opening of the pipe to prevent debris from entering. Additionally, excavation of the flood control excavation area would result in impacts to the onsite ephemeral drainage feature.

Mitigation Measure BR — 8 and **BR — 9** (discussed in the **Section 3.4, Biological Resources**) would ensure that the City will coordinate with the regulatory agencies with jurisdiction (USACOE, CVRWQCB and CDFW), in order to mitigate for impacts to jurisdictional waters of the U.S.

Impacts to water quality are considered to a **Less Than Significant Impact with Mitigation Incorporated**, no further mitigation is required.

- e. **Less Than Significant Impact.** As discussed above, the Proposed Project includes the grading of swales along the trail alignment in order to capture and redirect runoff from the trail. From the ending points of the swales, at the proposed culvert location, the runoff will flow along the existing riverine seasonal wetland feature and eventually to Pleasant Grove Creek. The existing drainage system is adequate to support the Proposed Project.

The trail alignment would introduce a very small amount (0.40 acre) of impervious surfaces; therefore, there would not be a substantial increase in the amount of runoff. The trail alignment will be used by pedestrians and bicyclists and is not anticipated to result in additional sources of pollutants. Implementation of **BMP — 1**, as discussed above, will ensure **Less Than Significant Impact**. No mitigation is required.

- g. **No Impact.** The project alignment is located within a FEMA-designated 100-year Flood Zone (**Figure 8**). However, the Proposed Project would not involve residential development and would not place housing in special flood hazard areas. Therefore, **No Impact** would result from project development and no mitigation is required.

- h. **Less Than Significant Impact With Mitigation Incorporated.** According to the *William “Bill” Hughes Park Phase 2C Bent Tree Bridge Preliminary Hydrology and Hydraulic Design Report* (RBF Consulting 2014) (**Appendix D**), the proposed bridge would be designed to have a low chord elevation of 88.5 feet which would slope upward from the west bank to 90.5 feet on the east bank of Pleasant Grove Creek. As discussed above, the report concludes that the construction of the bridge would result in an increase in 100-year water surface elevation of 0.01 feet. The report includes **APM — 1** in order to limit upstream impacts to locations approximately 650 feet upstream from the proposed bridge. Without this measure impacts may extend 1,700 feet upstream.

APM — 1: Flood Control Mitigation

Areas upstream of the proposed bridge location will be regraded to slope at 0.8 percent towards the creek for 50 feet, and then remain 6-inches below existing grade for an area 60 feet wide (parallel to the creek) and 180 feet long (perpendicular to the creek).

Implementation of **APM — 1** as well as **Mitigation Measure 4.4 — 1** from the *North Roseville Specific Plan Environmental Impact Report* would limit impacts to those parcels that are owned by the City of Roseville and would prevent, to the extent possible, exacerbation of flooding (EIP Associates 1997). Potential impacts associated with development of the Proposed Project are therefore considered **Less Than Significant With Mitigation Incorporated**.

- i. **Less Than Significant.** Although the project site is within a designated flood inundation area, the project would not result in any increased risk. The project would not involve the construction of occupied structures and the implementation of **APM — 1** discussed above would limit upstream impacts to locations approximately 650 feet upstream from the proposed bridge and would avoid impacts to privately held parcels. There would be no substantial risk of loss, injury, or death in the event of flooding at the project site. Therefore, impacts are considered **Less Than Significant**. No mitigation is required.
- j. **No Impact.** The project site is not located near an ocean coast or enclosed body of water that could produce a seiche or tsunami, nor is the site located near areas having steep slopes that would create mudflows. Therefore, **No Impact** would result from project development and no mitigation is required.

Mitigation Measures:

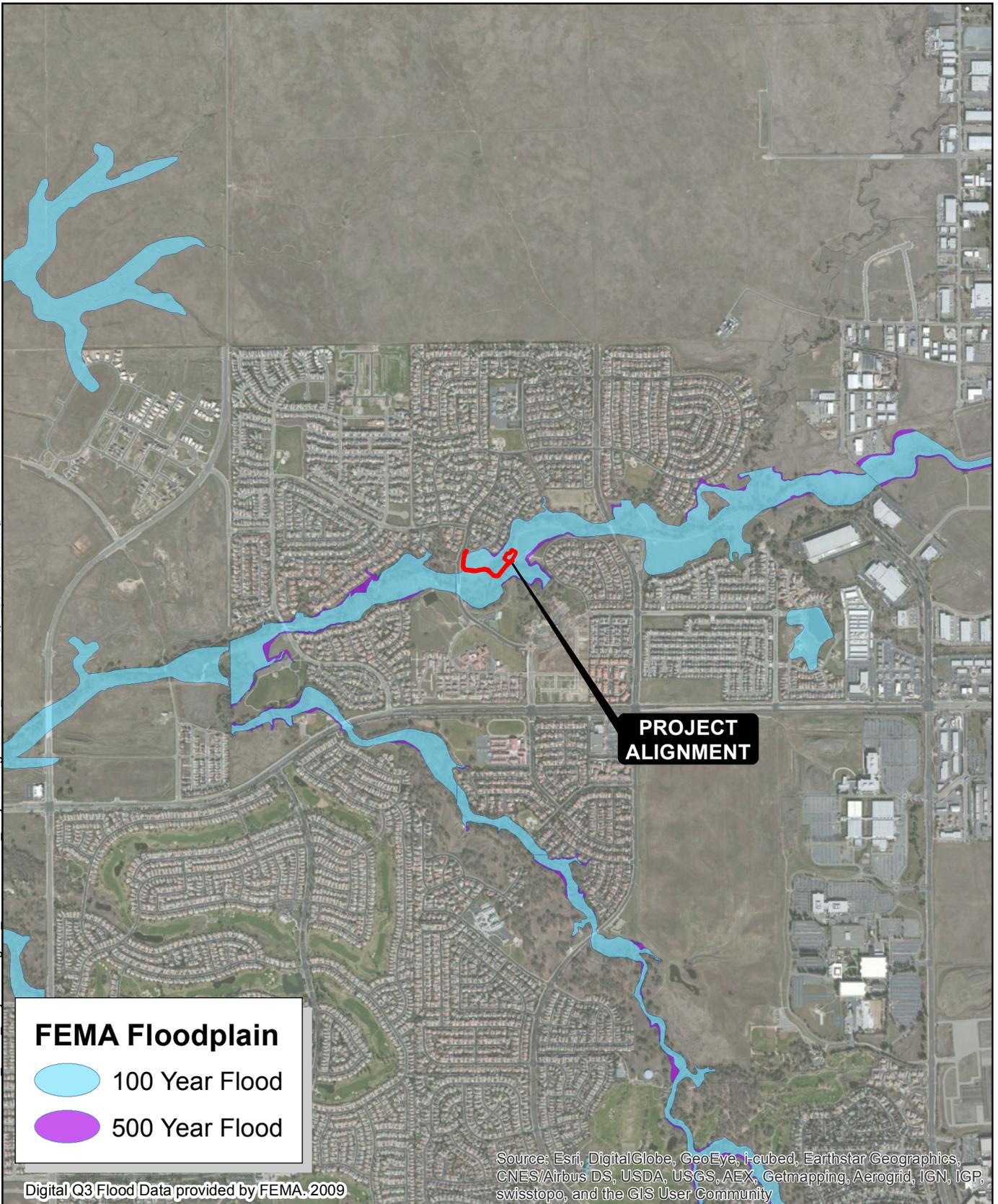
The *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) identifies the following Mitigation Measure to reduce potential impacts related to hydrology and water quality relevant to the Proposed Project:

MM 4.4 — 1: Design and site structures and amenities within parks and open space designations to prevent flood flow obstruction, and demonstrate no increase in off-site water surface elevations due to such features.

Structures and amenities associated with anticipated uses within areas of the Parks and Open Space land use designations that are included in the 100-year floodplain shall be designed and sited to ensure that such features do not obstruct flood flows, do not create a public safety hazard, or result in any increase in off-site water surface elevations. Recreational amenities such as picnic tables and backstops shall be designed, placed, and securely fastened to allow for water to easily flow through or around them and so that they do not become dislodged during flood events. Fences, if any shall be sized, placed, and securely anchored to minimize the potential for floodwaters to flow towards unprotected areas or areas not within the floodplain. Permanent features such as restroom facilities shall be constructed in accordance with applicable requirements and situated where they will not exacerbate flooding.

Implementation of **APM — 1** will ensure the project is designed to demonstrate no increase in offsite water surface elevations. This will ensure impacts are reduced to less than significant.

Document Path: O:\N Call\H Projects\Hughes Park\GIS\GIS Projects\HughesPark FEMA CEQA 20140814.mxd



FEMA Floodplain

- 100 Year Flood
- 500 Year Flood

Digital Q3 Flood Data provided by FEMA - 2009

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

HUGHES PARK TRAIL - FEMA FLOODPLAIN LOCATION

FOOTHILL ASSOCIATES
 ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
 © 2014



0 1000 2000
 FEET
 1 inch = 2,000 feet

Drawn By: KER
 Date: 09/15/2014

FIGURE 8

3.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in land use/operational conflicts between existing and proposed on-site or off-site land uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Checklist Answers:

a. **No Impact.** The Proposed Project is located within Hughes Park. The proposed trail alignment will be accessible to pedestrians and bicyclists and will not divide an established community. Therefore, **No Impact** would result from project development and no mitigation is required.

b. **No Impact.** The project alignment falls within areas designated primarily for Open Space and Park and Recreation uses within the *City of Roseville General Plan, Land Use Element* (City of Roseville 2010). The alignment also includes a small portion of land south of Bent Tree Drive designated for Low Density Residential uses within the *Land Use Element*. The project alignment is bounded by residential land uses to the north, east and west and by commercial land uses to the south. Within the Zoning Code of the City of Roseville, the project alignment is within an area zoned for Open Space and Park and Recreation uses as well as Single-Family Residential uses. Resource related recreation is listed as a permitted use for both Open Space and Park and Recreation land use zones within the City of Roseville Municipal Code (Section 19.16.020). The Proposed Project would remain consistent with the land use and zoning designation within the project alignment.

The project alignment is within the *North Roseville Specific Plan* (Plan Area). According to the *North Roseville Specific Plan*, the neighborhoods were planned with the goal of encouraging pedestrian and bicycle transportation. Access to open space containing oak woodlands and creek corridors is a key component of the pedestrian and bicyclist trail system within the Plan Area. The Proposed Project would be consistent with the *North Roseville Specific Plan* (EIP Associates 1997). Therefore, there would be **No Impact** due to a conflict with a land use policy. No mitigation is required.

c. **No Impact.** There is no applicable Habitat Conservation Plan or Natural Community Conservation Plan relevant to the project site. Therefore **No Impact** would result from development of the Proposed Project and no mitigation is required.

- d. **No Impact.** The Proposed Project would construct a paved or DG trail alignment within Hughes Park which would connect Bent Tree Drive to the existing Pleasant Grove Creek Trail. The project is consistent with existing uses and surrounding land uses and does not have the potential to result in land use or operational conflicts on- or off-site. Therefore, **No Impact** would result from project development and no mitigation is required.

3.11 Mineral Resources

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

Discussion of Checklist Answers:

a,b. No Impact. As stated in the *City of Roseville General Plan* (City of Roseville 2010), mineral resources, consisting of sand and gravel, are limited and no mineral extraction operations currently exist or are anticipated to exist in the City. The City of Roseville has not designated the site as a locally important mineral resource area. There would be **No Impact**. No mitigation is required.

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3.12 Noise

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Be 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 public use airport and expose people residing or working in the project vicinity to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project vicinity to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Checklist Answers:

a,b,c,d. Less Than Significant Impact. The Proposed Project would result in the grading and paving of a trail alignment, the placement of beams and concrete abutments in support of a bridge, flood control and drainage improvements, and the cutting and replacement of existing Pleasant Grove Creek Trail pavement near the east end of the project alignment. The following discussion evaluates the construction and operational impacts of the project.

The *City of Roseville General Plan, Noise Element* (City of Roseville 2010) has established Goals and Policies relating to evaluating noise impacts due to projects. The overall noise goal for the City is to protect the health and welfare of the community by promoting community development which is compatible with noise level criteria. The *Noise Element* establishes noise standards for maximum allowable noise exposure due to transportation sources and performance standards for fixed noise sources. Transportation noise standards (60 dBA L_{dn}/CNEL) are applied at the outdoor activity area of noise sensitive land use (residential). Fixed noise sources are not to exceed 50 dBA L_{eq} and 70

dBa L_{max} during daytime hours (7:00 A.M. to 10:00 P.M.) and 45 dBA L_{eq} and 65 dBA L_{max} during nighttime hours (10:00 P.M. to 7:00 A.M.) as measured at the property line of noise sensitive land uses or exceed the ambient sound level by +3 dBA at the noise sensitive land use property line, whichever is greater.

The City of Roseville Municipal Code, Health and Safety Ordinance Chapter 9.24 contains specific requirements for construction activities, stating that they are exempt from the provisions of the noise codes if all activities occur between 7:00 A.M. and 7:00 P.M. Monday through Friday and 8:00 A.M. to 8:00 P.M. on Saturday and Sunday, provided that all construction equipment is fitted with factory installed muffling devices and is maintained in good working order.

The existing noise environment at the site is influenced by recreational uses within Hughes Park and by vehicular noise attributable to traffic on State Route 65. The project alignment is surrounded by residential development to the north and east. The nearest residence is located on Bent Tree Drive and is slightly over 50 feet north of the start of the proposed trail alignment.

Construction Impacts

Construction of the Proposed Project would be a source of temporary or periodic increases in ambient noise levels that could be audible to nearby land uses. Construction would involve the loading and unloading of equipment and supplies, grading and paving of the project alignment, excavating soil for the placement of the reinforced concrete pipe, placing the bridge over Pleasant Grove Creek, and saw cutting the pavement of the existing Pleasant Grove Creek Trail to match the grade of the project alignment. The mix of equipment operating would vary depending on the activity being conducted onsite, and noise levels would vary based on the amount of equipment in operation and the location of the activity. The abutments for the proposed bridge would be poured in place and would not require construction equipment which may result in excessive groundborne vibration or noise levels, such as a pile driver. As required by Chapter 9.24.030(G) of the City Code, construction activities would be limited to occur only between the hours of 7:00 A.M. and 7:00 P.M., Monday through Friday, and 8:00 A.M. and 8:00 P.M. on Saturday and Sunday, as discussed above. Chapter 9.24.030(G) also requires the use of exhaust and intake silencers for internal combustion engines used during construction to reduce noise levels associated with construction activities.

It is anticipated that equipment utilized during construction of the Proposed Project would include, but may not be limited to: water trucks, graders, saws, backhoes and plate compactors. As shown in **Table 4**, the typical noise level for the equipment listed above is 88 dBA, 85 dBA, 76 dBA, 80 dBA, and 82 dBA, respectively. These levels were measured at a receptor located 50 feet away from the source. The nearest sensitive receptor is approximately 50 feet from the project alignment.

Table 4 — Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 Ft. from Source
Air Compressor	81
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83

Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	88

Source: U.S. Department of Transportation. 2006. *Transit Noise and Vibration Impact Assessment*. FTA-VA-90-1003-06. May 2006.

The use of any of the above mentioned equipment may, therefore, exceed 50 dBA L_{eq} and 70 dBA L_{max} during daytime hours (7:00 A.M. to 10:00 P.M.). It is acknowledged that construction-related noise may be considered a nuisance to sensitive receptors in the residential neighborhoods bordering Hughes Park; however, this increase would be short-term, and would not result in a permanent increase in ambient noise levels.

Additionally, the City exempts noise associated with construction that occurs between the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday and between 8:00 A.M. and 8:00 P.M. on Saturday and Sunday because these hours are outside of the recognized sleep hours for residents and outside of evening and early morning hours and time periods where residents are most sensitive to exterior noise. Therefore, the Proposed Project would be exempt from the noise standards during these hours. Construction work on the Proposed Project would only occur between the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday and between 8:00 A.M. and 8:00 P.M. on Saturday and Sunday. Construction-related noise would therefore result in a **Less Than Significant Impact** and no mitigation is required.

Operational Impacts

The project would result in a paved or DG trail alignment through Hughes Park. The operational use of the project would include use by pedestrians and bicyclists which is consistent with the existing recreational use of the park. Little additional operational noise would result from operation of the Proposed Project. Therefore, impacts to permanent ambient noise levels would be considered a **Less Than Significant Impact**.

e.f. No Impact. The Proposed Project is not located within the immediate vicinity of an airport land use plan, or within two miles of a public airport. The Proposed Project is approximately two miles northeast of the privately owned Fiddymont Field Airport; however, the airport is infrequently used as it is restricted to private use. Additionally, the Proposed Project would not result in people living or working within the vicinity of the airport. The Proposed Project would involve the construction of a paved or DG trail alignment and users of the alignment would not be exposed to hazardous noise levels from the private airport. There would be **No Impact** and no mitigation is required.

3.13 Population and Housing

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

Discussion of Checklist Answers:

- a. **No Impact.** The Proposed Project would involve the construction of a paved or DG trail alignment within Hughes Park, and does not propose any new homes or businesses. The Proposed Project would not directly induce population growth because it proposes no significant employment-generating uses. Project development would not indirectly induce population growth because it would not extend roads or infrastructure into previously undeveloped areas. Therefore **No Impact** would result from project development and no mitigation is required.
- b,c. **No Impact.** The project alignment is within an existing park and would not displace people or housing. **No Impact** would result from development of the Proposed Project and no mitigation is required.

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3.14 Public Services

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Checklist Answers:

a-e. No Impact. The Proposed Project would involve the construction of a paved or DG trail alignment for public use within the existing Hughes Park. No increase in Fire or Police Department staffing would be necessary to serve the project. The Proposed Project would not result in a population increase that would require schools or parks or other public facilities. Therefore, **No Impact** would result from development of the Proposed Project and no mitigation is required.

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3.15 Recreation

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

Discussion of Checklist Answers:

- a. **No Impact.** The Proposed Project would result in the construction of a trail alignment within Hughes Park which would connect to the existing Pleasant Grove Creek Trail. While the additional trail alignment may result in the increased use of the park, the increased use is not anticipated to be significant or to result in substantial physical deterioration. The Proposed Project would not involve creation of new housing or otherwise generate additional, substantial demand for recreational facilities. **No Impact** would result from development of the Proposed Project and no mitigation is required.

- b. **Less Than Significant Impact With Mitigation Incorporated.** The Proposed Project involves the expansion of the existing Pleasant Grove Creek Trail. Adverse physical effects to the environment resulting from development of the Proposed Project are discussed within **Section 3.4, Biological Resources, Cultural Resources, Section 3.5, Hazards and Hazardous Materials, Section 3.8, and Hydrology and Water Quality, Section 3.9** of this Initial Study. Where applicable, mitigation measures have been identified to reduce all potentially significant impacts to less than significant levels. Therefore impacts are considered to be a **Less Than Significant Impact With Mitigation Incorporated.**

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3.16 Transportation/Traffic

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

Discussion of Checklist Answers:

- a,b. No Impact.** The Proposed Project will result in the construction of a trail alignment for use by pedestrians and bicyclists. The creation of such a trail is consistent with the underlying goal to shift from the use of single occupant automobiles to alternative modes of transportation within the *City of Roseville General Plan, Circulation Element* (City of Roseville 2010). The development of the trail alignment would not conflict with other components of the circulation system such as existing intersections, streets, highways, freeways or mass transit.

The project would not result in changes in vehicle circulation patterns nor would it increase vehicle trips in the project vicinity. The Proposed Project would create a trail alignment in Hughes Park and would not alter the design of any roadways. There would be **No Impact** and no mitigation is required.

- c. **No Impact.** The Proposed Project would not result in a change in air traffic patterns. There would be **No Impact** and no mitigation is required.
- d. **Less Than Significant Impact.** The trail alignment would begin just beyond the existing sidewalk at the corner of Bent Tree Drive and Parkside Way and would be designed to match the grade of the existing sidewalk. The Proposed Project does not include any design features that could result in increased safety hazards. Therefore, impacts are considered **Less Than Significant Impact** and no mitigation is required.
- e. **No Impact.** Project development would not involve temporary road or lane closures during construction or operation and no emergency access routes would be affected by the project. Pedestrians would be able to access the trail alignment from the existing sidewalk and bicyclists would be able to access the trail from the existing bike lane at the Bent Tree Drive and Parkside Way intersection. There would be **No Impact** and no mitigation is required.
- f. **No Impact.** As discussed above, the creation of the Proposed Project is consistent with the underlying goal to shift from the use of single occupant automobiles to alternative modes of transportation within the *City of Roseville General Plan, Circulation Element* (City of Roseville 2010). Specifically, the Proposed Project is consistent with Goal 2 of the Bikeways/Trails component because it would contribute to the existing trail network. Goal 2 of the Bikeways/Trails component is as follows:

Establish and maintain a safe, comprehensive and integrated bikeway and trail system that encourages the use of bikes and walking for commuting, recreational and other trips.

The Proposed Project would not conflict with the City's overall transportation service goal. **No Impact** would result from development of the Proposed Project and no mitigation is required.

3.17 Utilities and Service Systems

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

Discussion of Checklist Answers:

a,b,e. No Impact. The Proposed Project would result in a trail alignment through Hughes Park. The Proposed Project would not include the construction of any wastewater-generating uses. The Proposed Project would not increase population in the project vicinity, and there would be no additional wastewater flows as a result of project development. Existing wastewater facilities within the park would continue to be adequate to serve recreational users within the park, including those utilizing improvements resulting from the Proposed Project; therefore, the Proposed Project would not result in the need for new or expanded wastewater facilities and would not have an adverse effect on wastewater treatment requirements. **No Impact** would result from development of the Proposed Project and no mitigation is required.

- c. **No Impact.** As discussed in the Project Description and **Section 3.9, Hydrology and Water Quality** of this document, the Proposed Project includes the grading of a swale along the paved or DG trail alignment in order to capture and redirect runoff from the trail. From the ending points of the swale, at the proposed culvert, the runoff will flow along the existing depression seasonal wetland feature and eventually to Pleasant Grove Creek. Therefore, there would be no need for construction of new stormwater infrastructure or the expansion of existing infrastructure related to project development. **No Impact** would result from development of the Proposed Project and no mitigation is required.
- d. **No Impact.** The project would not result in the need for new or expanded water supplies. **No Impact** would result from development of the Proposed Project and no mitigation is required.
- f,g. **Less Than Significant Impact.** The Western Placer Waste Management Authority is a regional agency handling recycling and waste disposal for the City of Roseville and surrounding areas. Their facilities include a Material Recovery Facility and the Western Regional Sanitary Landfill. Project construction may generate construction debris and excavated soil. This would not affect landfill capacity because the amounts would not be substantial and would occur only during the construction period. As specified in the City's Design and Construction Standards for solid waste (Section 151) (City of Roseville 2014), the City will ensure that contractors meet with the designated Roseville Environmental Utilities Inspector prior to beginning work to ensure that an approved plan is in place to store and dispose of all construction debris, according to relevant federal, State, and local statutes. Therefore, impacts associated with development of the Proposed Project would be considered a **Less Than Significant Impact** and no mitigation is required.

3.18 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant With 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 a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion of Checklist Answers:

- a. **Less Than Significant With Mitigation Incorporated.** Potential impacts have been identified related to **Biological Resources (Section 3.4)**, **Cultural Resources (Section 3.5)**, **Hazards and Hazardous Materials (Section 3.8)** and **Hydrology and Water Quality (Section 3.9)**. Mitigation measures have been identified related to individual potential resource-specific impacts.

Mitigation measures from the *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) which are relevant to Biological Resources include: **Mitigation Measure 4.5 — 2** and **Mitigation Measure 4.5 — 4**. Those mitigation measures which are proposed by this document and are relevant to Biological Resources include: **Mitigation Measure BR — 1**, **Mitigation Measure BR — 2**, **Mitigation Measure BR — 3**, **Mitigation Measure BR — 4**, **Mitigation Measure BR — 5**, **Mitigation Measure BR — 6**, **Mitigation Measure BR — 7**, **Mitigation Measure BR — 8**, **Mitigation Measure BR — 9**, **Mitigation Measure BR — 10**, and **Mitigation Measure BR — 11**. The mitigation measure from the *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) which is relevant to Cultural Resources is **Mitigation Measure 4.6 — 1**. The mitigation measures proposed by this document in order to protect Cultural Resources include: **Mitigation Measure CR — 1**, and **Mitigation Measure CR — 2**. Mitigation measures from the *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) which are relevant

to **Hazards and Hazardous Materials** include: **Mitigation Measure 4.8 — 1**, **Mitigation Measure 4.8 — 2(a)**, and **Mitigation Measure 4.8 — 2(b)**. The mitigation measures from the *North Roseville Specific Plan Environmental Impact Report* (EIP Associates 1997) relevant to Hydrology and Water Quality is **Mitigation Measure 4.4 — 1**. The mitigation measures which are proposed by this document and are relevant Hydrology and Water Quality to include: **Mitigation Measure BR — 8** and **Mitigation Measure BR — 9**. Proposed mitigation measures would reduce the level of all project-related impacts to less than significant levels.

Therefore, impacts are considered ***Less Than Significant With Mitigation Incorporated***.

- b. **Less Than Significant Impact.** For natural resource topics (**Aesthetics, Agriculture and Forest Resources, Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, and Mineral Resources**), there would be no cumulative effects because no resources would be adversely affected, or the project effects would be localized and of limited extent. Similarly, the project would involve minimal hazardous materials use, the risks of which are site-specific and are extensively regulated, and do not combine with similar effects resulting in a cumulative effect.

The Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses; therefore, it would not combine with cumulative development to create a cumulative effect related to increased demand for services or utilities, the expansion of which could result in significant environmental effects.

Therefore, impacts are considered ***Less Than Significant***.

- c. **Less Than Significant Impact.** There would be no significant adverse effects to human beings. There would be a less than significant increase in operational air emissions as well as a less than significant increase in noise levels as a result of development of the Proposed Project. For all other topics, there would be No Impact, a Less Than Significant Impact or impacts are considered Less Than Significant Impact With Mitigation Incorporated.

Therefore, impacts, both direct and indirect, to human beings are considered ***Less Than Significant***.

4.0 REPORT PREPARERS

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Personal Communication

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Appendix A — Mitigation Monitoring and Reporting Program

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Hughes Park Trail Project Mitigation Monitoring and Reporting Program

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
Biological Resources				
<i>From the North Roseville Specific Plan Environmental Impact Report</i>				
<p>MM 4.5 — 2: Implement construction protocols The Proposed Project shall require the implementation of construction protocols that include, but may not be limited to, the following:</p> <ul style="list-style-type: none"> Restrict construction activities to areas away from preserved oak and riparian habitat. <p>Construction activities in the vicinity of oak trees shall be minimized. Laydown, staging, refueling and parking areas shall not be located adjacent to open space or riparian zones. Construction activities that by necessity occur in the vicinity oak woodlands and riparian zones to be preserved shall be supervised by an on-site responsible compliance officer designated by the developer. Encroachments or damage that have not been authorized by a tree permit shall be prohibited, and measures to prevent damage to trees in the vicinity shall be implemented as detailed in the Tree Preservation Chapter of the Zoning Ordinance.</p> <ul style="list-style-type: none"> Erect temporary barrier fencing to delimit protected areas. <p>Temporary fencing, consisting of five-foot orange construction drift fence, flagging, signs, or other markings shall be erected around open space areas and restricted areas, and maintained for the duration of construction, to prevent inadvertent damage to natural resources. Fencing shall be maintained, and shall be the responsibility of an on-site compliance officer designated by the developer.</p>	City and Contractor	City	Prior to construction and during construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>MM 4.5 — 4: Conduct pre – construction nest survey and implement appropriate restrictions To ensure that fully protected species are not injured or disturbed by construction in the vicinity of nesting habitat, the applicant shall implement the following measures:</p> <ul style="list-style-type: none"> a) When feasible, all tree removal shall occur between August 30 and March 15 to avoid to breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. This period may be modified with the authorization of the Fish and Wildlife Service (formerly the Department of Fish and Game), or b) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between March 15 to August 30, all trees within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests by a qualified biologist. If active raptor nests are found, and the site is within 350 feet of potential construction activity, a fence shall be erected around the tree at a distance up to 350 feet, depending on the species, from the edge of the canopy to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined by the City. The City may consult with California Department of Fish and Wildlife (CDFW) (formerly California Department of Fish and Game) regarding the appropriate buffer distance. c) No construction vehicles shall be permitted within restricted areas (i.e., raptor protection zone), unless directly related to the management or protection of the legally-protected species. d) In the event that a nest is abandoned, despite efforts to minimize disturbance, and if the nestlings are still alive, the developer shall contact CDFW and, subject to CDFW approval, fund the recovery and hacking (controlled release of captive reared young) of the 	<p>City and Contractor</p>	<p>City</p>	<p>Prior to construction and during construction</p>	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>nestling(s).</p> <p>For tree removal, the following measure shall be implemented:</p> <p>e) If a legally-protected species nest is located in a tree designated for removal, the removal shall be deferred until after August 30, or until the adults and young of the year are no longer dependent on the nest site as determine by a qualified biologist.</p>				
<p><i>From the Hughs Park Trail Project Initial Study/ Mitigated Negative Declaration</i></p>				
<p>MM BR — 1: Special-Status Plants</p> <p>The annual grassland within the project alignment provides habitat for potentially occurring non-listed special-status plants including: Ahart's dwarf rush (blooms March through May) and dwarf downingia (blooms March through May). A qualified botanist shall conduct a single botanical survey of the project alignment some time between March and May within the blooming period for potentially occurring special-status plants. A letter report shall be submitted to the applicant within 30 days following the bloom survey to document the results. If no special-status plants are observed, then no additional measures are recommended.</p> <p>If any of the non-listed special-status plants occur within the project site, they shall be avoided to the extent feasible. If the plants cannot be avoided, a mitigation plan shall be prepared in consultation with the CDFW. At minimum, the mitigation plan will include locations where the plants will be transplanted in suitable habitat adjacent to the Project Site, success criteria, and monitoring activities. The CDFW must approve the mitigation plan prior to transplanted and commencement of construction activities.</p>	<p>City and Contractor</p>	<p>City</p>	<p>Prior to Construction</p>	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>MM BR — 2: California Red-Legged Frog A qualified biologist shall conduct a pre-construction survey for CRLF within 14 days prior to the start of excavation and grading activities or work associated with spanning the bridge over Pleasant Grove Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days, a new survey will be required. If no CRLF are found, no additional measures are required.</p> <p>If CRLF are found, consultation with the USFWS would be required. Construction would be delayed until the USFWS authorizes the work.</p>	City and Contractor	City	Prior to construction	
<p>MM BR — 3: Western Pond Turtle Within 14 days prior to the start of ground disturbance, a qualified biologist shall conduct a pre-construction survey for Western pond turtles. Ground disturbance includes any grading and excavation activities and any work associated with spanning the bridge over Pleasant Grove Creek. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days, a new survey will be required. If no Western pond turtles are found, no additional measures are required.</p> <p>If Western pond turtles are found, consultation with the CDFW is recommended to determine avoidance measures. These measures may include having a qualified biologist onsite during grading activities and work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area for the purpose of relocating any species found within the construction footprint to suitable habitat away from the construction zone, but within the vicinity of the project alignment.</p>	City and Contractor	City	Prior to construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>MM BR — 4: Burrowing Owl A qualified biologist shall conduct burrowing owl surveys during the peak breeding season (April 15 and July 15), in accordance with the 2012 <i>California Department of Fish and Game Staff Report on Burrowing Owl Mitigation</i> (2012 Staff Report) (CDFG 2012). The survey area includes an approximately 500-foot (150-meter) buffer around the project alignment, where access is permitted. The report will be submitted to the CDFW, as indicated in the 2012 Staff Report. If the surveys are negative, then no additional measures are recommended.</p> <p>If active burrows are observed within 500 feet of the project alignment, an impact assessment will be prepared and submitted to the CDFW, in accordance with the 2012 Staff Report. If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the applicant will consult with the CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan will be based on the requirements set forth in Appendix A of the 2012 Staff Report.</p>	City and Contractor	City	Prior construction during breeding season	
<p>MM BR — 5: Migratory Birds and Other Birds of Prey Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including bank swallow, grasshopper sparrow, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Foraging habitat is not protected for these species as well as for tricolored blackbird. Vegetation clearing operations, including pruning or removal of trees and shrubs, should be completed between September 1 to February 14, if feasible. If vegetation removal begins during the nesting season (February 15 to August 31), a qualified biologist shall conduct a pre-construction survey for active nests within 500 feet of the project alignment. The pre-construction survey will be conducted within 14 days prior to commencement of vegetation removal. In addition, a pre-construction survey should be conducted within 14 days</p>	City and Contractor	City	Prior to construction (if vegetation removal occurs during nesting season)	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>prior to commencement of excavation activities associated with the flood control excavation area and work associated with the bridge installation over Pleasant Grove Creek, if these project activities are anticipated to commence during the nesting season. If the pre-construction surveys show that there is no evidence of active nests, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey would be recommended.</p> <p>If any active nests are located within the vicinity of the project alignment, an appropriate buffer zone will be established around the nests. The biologist will delimit an appropriate buffer zone with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests, excluding Swainson's hawk. If active nests are found on site, a qualified biologist will monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. Guidance from the CDFW would be recommended if establishing the typical buffer zone is impractical.</p>				
<p>MM BR — 6: Swainson's hawk A qualified biologist shall conduct a protocol level preconstruction survey during the recommended survey period immediately prior to the anticipated commencement of construction activities, in accordance with the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist shall conduct the survey for nesting Swainson's hawk in the project alignment and within 0.25 miles of construction activities where legally permitted. If no active Swainson's hawk nests are identified on or within 0.25 miles of construction activities within the recommended survey period, a letter report summarizing the survey results will be submitted to the applicant and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is recommended.</p>	City and Contractor	City	Prior to construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>If active Swainson's hawk nests are found within 0.25 miles of the project alignment, the biologist will contact the applicant and the CDFW within one day following the pre-construction survey to report the findings.</p> <p>Construction activities include heavy equipment operation associated with construction or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of an active nest site. Should an active nest be present within 0.25 miles of construction areas, then the CDFW will be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. The monitoring program will include an onsite biologist to monitor all grading activities, work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area that occur within the established buffer zone to ensure that disruption of the nest or forced fledging does not occur.</p>				
<p>MM BR — 7: Special-Status Bat Species</p> <p>The trees within the riparian woodland provide roosting habitat for special-status bats. Pre-construction surveys for special-status bat species are recommended within 14 days prior to the start of ground disturbance and tree removal. If no bats are observed, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days a new survey will be required.</p> <p>If bats are found, consultation with the CDFW is recommended to determine avoidance measures. Recommended avoidance measures include establishing a buffer around the roost tree until it is no longer occupied. If the bat is roosting in a tree anticipated for removal, then that tree will not be removed until a biologist has determined that the tree is no longer occupied by the bat.</p>	<p>City and Contractor</p>	<p>City</p>	<p>Prior to construction</p>	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>MM BR — 8: Impacts to Jurisdictional Waters of the U.S. Placement of permanent or temporary fill in waters of the U.S. is regulated by the U.S. Army Corps of Engineers (USACOE) under Section 404 of the Clean Water Act (CWA). The City shall coordinate with the USACOE in order to obtain the applicable permits for activities resulting in temporary and/or permanent impacts to waters of the U.S. The project shall comply with the USACOE “no net loss” policy and the conditions of a Nationwide or Individual Permit authorization by the USACOE.</p> <p>Any discharge into waters of the U.S. is regulated by the Central Valley Regional Water Quality Control Board (CVRWQCB) pursuant to CWA Section 401. The City shall coordinate with the CVRWQCB in order to obtain a Water Quality Certification.</p>	City and Contractor	City	Prior to construction	
<p>MM BR — 9: Impacts to the Riparian Woodland Pursuant to Fish and Game Code § 1602, the City shall notify the California Department of Fish and Wildlife (CDFW) prior to any activity which may adversely impact a river, lake or stream. The City will coordinate with the CDFW in order to obtain a 1600 Streambed Alteration Agreement, if applicable, for impacts to the riparian woodland adjacent to the creek.</p>	City and Contractor	City	Prior to construction	
<p>MM BR — 10: Native Oak Tree Mitigation The City will comply with the City’s Tree Preservation Ordinance as applicable, including avoidance, minimization, or compensation for the removal or disturbance of native oak trees greater than 6 inches DBH during construction. If native oak trees will be affected by the project, the City will be required to prepare a tree mitigation plan that identifies trees that qualify for protection and specifies mitigation for impacts. For any oak trees that would be removed, the City will offset potential adverse impacts through either on-site planting, the preparation of a revegetation plan or the use of the City’s in-lieu fee program.</p>	City and Contractor	City	Plan check and prior to construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>MM BR — 11: Mitigation Oak Tree Relocation The 27 native oak trees which are proposed for replanting or relocation shall be replanted and monitored consistent with the City's Tree Preservation Ordinance including a five-year monitoring requirement and replacement if applicable.</p>	City and Contractor	City	Plan check and prior to construction	
Cultural Resources				
<i>From the North Roseville Specific Plan Environmental Impact Report</i>				
<p>MM — 4.6-1: Cease Work and Consult a Qualified Archaeologist In the event of the discovery of buried archaeological deposits it is recommended that project activities in the vicinity of the find should be temporarily halted and a qualified archaeologist consulted to assess the resource and provide proper management recommendation. Possible management recommendations for important resources could include resource avoidance or data recovery excavations.</p>	City and Contractor	City	During construction	
<i>From the Hughs Park Trail Project Initial Study/ Mitigated Negative Declaration</i>				
<p>MM CR — 1: Previously Unidentified Paleontological Resources The City shall ensure construction specifications shall include the following information in the grading notes:</p> <ul style="list-style-type: none"> If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities on the project site, activities will stop immediately until a state-registered Professional Geologist or Qualified Professional Paleontologist can assess the nature and importance of the find and a Qualified Professional Paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. 	City and Contractor	City	During construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>The City will be responsible for ensuring that recommendations regarding treatment and reporting are implemented.</p>				
<p>MM CR — 2: Inadvertent Discovery of Human Remains The City shall ensure construction specifications include the following in the grading notes:</p> <ul style="list-style-type: none"> • If human remains are discovered during any phase of construction, including disarticulated or cremated remains, the construction contractor shall immediately cease all ground-disturbing activities within 100 feet of the remains and notify Mark Morse, Environmental Coordinator, City of Roseville City Manager's Office. • In accordance with California State Health and Safety Code Section 7050.5, no further disturbance shall occur until the following steps have been completed: <p style="margin-left: 40px;">The County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) § 5097.98.</p> <p style="margin-left: 40px;">If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. It is further recommended that a professional archaeologist with Native American burial experience conduct a field investigation of the specific site and consult with the Most Likely Descendant (MLD), if any, identified by the NAHC. As necessary and appropriate, a professional archaeologist may provide technical assistance to the MLD, including but not limited to, the excavation and removal of the human remains.</p> 	<p>City and Contractor</p>	<p>City</p>	<p>During construction</p>	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
Hazards and Hazardous Materials				
<i>From the North Roseville Specific Plan Environmental Impact Report</i>				
<p>MM 4.8 — 1: Remediate site hazards, if discovered. If evidence of soil contamination is encountered, work shall cease until the area can be tested, and if necessary, remediated. As part of this process, the City shall ensure that any necessary investigation and/or remediation activities constructed in the Plan Area are coordinated with Roseville Fire Department, Placer County Division of Environmental Health, and, if needed, other appropriate agencies. Once the site is remediated, construction can continue. The City shall also continue to update its records concerning contamination or hazards that may be present at facilities or sites adjacent to the Plan Area, and take necessary action to ensure that the health and safety of the public is protected.</p>	City and Contractor	City	During construction	
<p>MM 4.8 — 2(a): Clear areas slated for construction activities of materials that could serve as fire fuel prior to initiating these activities. During construction, staging areas, welding areas, or areas slated for development in the near future where equipment will be operating on dried vegetation or other materials that could serve as fire fuel would be cleared. The contractor will maintain areas subject to such construction activities clear of combustible natural materials to the extent feasible in order to maintain a fire break. This measure would minimize the availability of fire fuels.</p>	City and Contractor	City	During construction	
<p>MM 4.8 — 2(b): Require spark-generating construction equipment to be equipped with manufacturer's recommended spark arresters. Any construction equipment that normally includes a spark arrester is to be equipped with such an arrester in good working order. This includes, but is not limited to, heavy equipment and chainsaws. This mitigation measure</p>	City and Contractor	City	Prior to and during construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
<p>would minimize a source of construction-related fire.</p> <p>If underground tanks or other features or materials that could present a threat to human health or the environment are discovered during construction, all work in the vicinity of the site shall stop. A qualified professional shall investigate the site and make recommendations for remediation, if necessary.</p>				
Hydrology and Water Quality				
<i>From the North Roseville Specific Plan Environmental Impact Report</i>				
<p>MM 4.4 — 1: Design and site structures and amenities within parks and open space designations to prevent flood flow obstruction, and demonstrate no increase in off-site water surface elevations due to such features.</p> <p>Structures and amenities associated with anticipated uses within areas of the Parks and Open Space land use designations that are included in the 100-year floodplain shall be designed and sited to ensure that such features do not obstruct flood flows, do not create a public safety hazard, or result in any increase in off-site water surface elevations. Recreational amenities such as picnic tables and backstops shall be designed, placed, and securely fastened to allow for water to easily flow through or around them and so that they do not become dislodged during flood events. Fences, if any shall be sized, placed, and securely anchored to minimize the potential for floodwaters to flow towards unprotected areas or areas not within the floodplain. Permanent features such as restroom facilities shall be constructed in accordance with applicable requirements and situated where they will not exacerbate flooding.</p>	City and Contractor	City	Plan check and prior to construction	

Appendix B — Road Construction Emissions Model, August 2014

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Road Construction Emissions Model, Version 7.1.5.1

Emission Estimates for -> Hughes Park Trail												
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)		
Grubbing/Land Clearing	0.1	0.8	0.9	1.9	0.0	1.9	0.4	0.0	0.4	237.4		
Grading/Excavation	2.4	11.5	19.7	3.2	1.3	1.9	1.5	1.1	0.4	2,301.1		
Drainage/Utilities/Sub-Grade	0.7	4.5	4.8	2.3	0.4	1.9	0.7	0.3	0.4	1,063.2		
Paving	0.5	4.6	4.3	0.2	0.2	-	0.2	0.2	-	821.1		
Maximum (pounds/day)	2.4	11.5	19.7	3.2	1.3	1.9	1.5	1.1	0.4	2,301.1		
Total (tons/construction project)	0.0	0.2	0.3	0.1	0.0	0.1	0.0	0.0	0.0	47.7		
Notes: Project Start Year -> 2015												
Project Length (months) -> 3												
Total Project Area (acres) -> 1												
Maximum Area Disturbed/Day (acres) -> 0												
Total Soil Imported/Exported (yd ³ /day) -> 0												
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.												
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.												
Emission Estimates for -> Hughes Park Trail												
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)		
Grubbing/Land Clearing	0.0	0.4	0.4	0.9	0.0	0.9	0.2	0.0	0.2	135.2		
Grading/Excavation	1.1	5.2	8.9	1.4	0.6	0.9	0.7	0.5	0.2	1,046.0		
Drainage/Utilities/Sub-Grade	0.3	2.1	2.2	1.0	0.2	0.9	0.3	0.1	0.2	483.3		
Paving	0.2	2.1	1.9	0.1	0.1	-	0.1	0.1	-	373.2		
Maximum (kilograms/day)	1.1	5.2	8.9	1.4	0.6	0.9	0.7	0.5	0.2	1,046.0		
Total (megagrams/construction project)	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	43.3		
Notes: Project Start Year -> 2015												
Project Length (months) -> 3												
Total Project Area (hectares) -> 0												
Maximum Area Disturbed/Day (hectares) -> 0												
Total Soil Imported/Exported (meters ³ /day) -> 0												
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.												
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.												

Appendix C — Biological Resources Assessment [for the] Hughes Park Trail Project, City of Roseville, Placer California

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Biological Resources Assessment

Hughes Park Trail Project
City of Roseville, Placer California

Prepared for: Carter-Kelly, Inc.

Date: October 29, 2014

Submitted by:
 **FOOTHILL ASSOCIATES**
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1.0 EXECUTIVE SUMMARY

Foothill Associates' biologists conducted a Biological Resources Assessment (BRA) on August 8, 2014 and September 18, 2014 for the Hughes Park Trail Project, in the City of Roseville, Placer County, California. The purpose of this BRA is to summarize the general biological resources within the Project Site, to assess the suitability of the Project Site to support special-status species and sensitive habitat types, to provide recommendations for regulatory permitting or further analysis that may be required, and to recommend mitigation measures to avoid or minimize potential impacts to special-status species and sensitive habitat types. The results of this BRA will be used to support State and federal natural resource permitting and California Environmental Quality Act (CEQA) review.

Known or potential biological constraints on the site include the following:

- Potential habitat for adobe dwarf rush (*Juncus leiospermus* ssp. *ahartii*) and dwarf downingia (*Downingia pusilla*);
- Potential habitat for California red-legged frog (*Rana aurora draytonii*);
- Potential habitat for western pond turtle (*Emys marmorata*);
- Potential nesting and foraging habitat for burrowing owl (*Athene cunicularia*);
- Potential nesting and foraging habitat for Swainson's hawk (*Buteo swainsoni*);
- Potential nesting sites and foraging habitat for migratory birds and raptors including: bank swallow (*Riparia riparia*), grasshopper sparrow (*Ammodramus savannarum*), and white-tailed kite (*Elanus leucurus*);
- Potential foraging habitat for tricolored blackbird (*Agelaius tricolor*);
- Potential habitat for special-status bat species; and
- Sensitive habitats (potential jurisdictional waters of the U.S and oak trees protected by the City of Roseville).

2.0 INTRODUCTION

This BRA summarizes the findings of a biological resources assessment completed for the Hughes Park Trail Project (Project Site) located east of Parkside Way, south of Bent Tree Drive, and north and west of a paved bike path within William Bill Hughes Park in the City Roseville, Placer County, California (**Figure 1**). This BRA addresses the onsite physical features and plant communities, plants, and wildlife observed within the Project Site. Furthermore, the suitability of habitats to support special-status species and sensitive habitats are analyzed, and recommendations are provided for any regulatory permitting or further analysis that may be required prior to development activities occurring within the Project Site.

2.1 Project Design

The Proposed Project includes the construction of a paved or decomposed granite (DG) trail, a pedestrian and bicycle bridge over Pleasant Grove Creek, the cutting and replacing of existing Pleasant Grove Creek Trail pavement near the east end of the project alignment and related drainage and flood control improvements within Hughes Park in the City of Roseville (**Figure 2**). The Proposed Project would connect the existing Pleasant Grove Creek Trail to Bent Tree Drive. The proposed trail segment would extend approximately 1,000 feet in length and would be constructed to a width of 10 feet with 2-foot shoulders on either side. A swale would be graded along the trail alignment to capture and redirect runoff from the trail. The swale would be graded starting on the west side of the trail approximately 115 feet from Bent Tree Drive and ending at the culvert opening south of the trail. On the north side of the trail, the swale would start approximately 50 feet west of the proposed bridge and direct flows to the culvert opening north of the trail. The swale would be two feet wide with slopes varying between one and two percent.

The proposed bridge would span 55 feet from bank to bank across Pleasant Grove Creek with supporting concrete abutments which extend an additional 10 feet on the eastern side and 18 feet on the western side. The bridge would be 14 feet wide with 2-foot high railings and would be designed for pedestrian and bicyclist access and use. Bridge construction would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek.

The Proposed Project would require a culvert crossing over the riverine seasonal wetland located west of Pleasant Grove Creek along the proposed trail alignment. In order to create a culvert crossing for pedestrians and bicyclists, the riverine seasonal wetland would be piped within a 24-inch reinforced concrete pipe for 32 feet. The pipe will be placed at the existing riverine seasonal wetland flowline and headwalls, trash racks, and rip rap will be placed at each opening of the pipe to prevent debris from entering. The headwall and trash rack structure will be 4 feet wide and will extend past the end of the pipe by 8 feet and 3 inches and will widen to 9 feet and 4 inches wide adjacent to the rip rap. Rip rap placement will extend 9 feet long by 5 feet wide by 1.5 feet deep at each opening adjacent to the headwall and trash rack.

A staging area for the construction equipment will be located at the current terminus of the existing paved Pleasant Grove Creek Trail alignment directly east of and adjacent to proposed improvements.

Because the project alignment is segmented by Pleasant Grove Creek, the project alignment will be accessed for construction activities from both the eastern and western sides of the creek. The portion of the project alignment to the east of the creek will be accessed from the staging area on the existing Pleasant Grove Creek Trail, which will be accessed via McCloud Way. The portion of the project alignment to the west of the creek will be accessed using the corner of Bent Tree Drive directly adjacent to the intersection of Bent Tree Drive and Parkside Way.

The Proposed Project includes APM – 1 Flood Control Mitigation in order to limit upstream impacts due to an increase in the 100-year water surface elevation of 0.01 feet. In order to limit upstream impacts to City-owned properties, approximately 650 feet upstream of the proposed bridge, an area adjacent to Pleasant Grove Creek and upstream of the proposed bridge will be regraded to slope at 0.8 percent towards the creek for approximately 50 feet, and then remain about 6-inches below existing grade for an area about 60 feet wide (parallel to the creek) and 180 feet long (perpendicular to the creek). The excavated area will provide the additional onsite floodwater storage needed to ensure that any backwater created by the proposed bridge would be contained entirely on City-owned property. There are currently 27 native oak (*Quercus* sp.) saplings planted as mitigation trees within the flood control excavation area. These saplings would be replanted within the flood control excavation area, or adjacent to the area as deemed necessary, following grading activities. This measure would be accomplished outside of the jurisdictional boundaries of Pleasant Grove Creek.

3.0 REGULATORY FRAMEWORK

Federal, State, and local environmental laws, regulations, and policies relevant to the California Environmental Quality Act (CEQA) review process are summarized below. The CEQA significance criteria are also included in this section.

3.1 Federal Jurisdiction

3.1.1 Federal Endangered Species Act

The U.S. Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 CFR §17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR §17.3). Actions that result in take can result in civil or criminal penalties.

FESA and Clean Water Act (CWA) Section 404 guidelines prohibit the issuance of wetland permits for projects that jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. The U.S. Army Corps of Engineers (Corps) must consult with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) when threatened or endangered species under their jurisdiction may be affected by a proposed project. In the context of the proposed project, FESA would be initiated if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could result in take of an endangered species or adversely modify critical habitat of such a species.

3.1.2 Migratory Bird Treaty Act

Raptors (birds of prey), migratory birds, and other avian species are protected by a number of state and federal laws. The federal Migratory Bird Treaty Act (MBTA) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of Interior. Section 3503.5 of the California Fish and Game Code states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

3.2 State Jurisdiction

3.2.1 California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the FESA but pertains to State-listed endangered and threatened species. CESA requires state agencies to consult with the California Department of Fish and Wildlife (CDFW), formally California Department of Fish and Game, when preparing California Environmental Quality Act (CEQA) documents. The purpose is to ensure that the state lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code §2080). CESA directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur and allows CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code § 2081).

3.2.2 California Department of Fish and Game Codes

Fully protected fish species are protected under Section 5515; fully protected amphibian and reptile species are protected under Section 5050; fully protected bird species are protected under Section 3511; and fully protected mammal species are protected under Section 4700. The California Fish and Game Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Except for take related to scientific research, all take of fully protected species is prohibited.

Section 3503 of the California Fish and Game Code prohibits the killing of birds or the destruction of bird nests. Section 3503.5 prohibits the killing of raptor species and the destruction of raptor nests. Sections 2062 and 2067 define endangered and threatened species.

3.2.3 California Department of Fish and Wildlife Species of Concern

In addition to formal listing under FESA and CESA, species receive additional consideration by CDFW and local lead agencies during the CEQA process. Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. It tracks species in California whose numbers, reproductive success, or habitat may be threatened.

3.3 Jurisdictional Waters

3.3.1 Federal Jurisdiction

The Corps regulates discharge of dredge or fill material into waters of the U.S. under Section 404 of the CWA. “Discharges of fill material” is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. In addition, Section 401 of the CWA (33 U.S.C. 1341) requires any applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Waters of the U.S. include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, and wet meadows. Boundaries between jurisdictional waters and uplands are determined in a variety of ways depending on which type of waters is present. Methods for delineating wetlands and non-tidal waters are described below.

- Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Presently, to be a wetland, a site must exhibit three wetland criteria: hydrophytic vegetation, hydric soils, and wetland hydrology existing under the “normal circumstances” for the site.
- The lateral extent of non-tidal waters is determined by delineating the ordinary high water mark (OHWM) [33 C.F.R. §328.4(c)(1)]. The OHWM is defined by the Corps as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

3.3.2 State Jurisdiction

CDFW is a trustee agency that has jurisdiction under Section 1600 *et seq.* of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds...except when the department has been notified pursuant to Section 1601.” Additionally, CDFW may assert jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over 4 inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable

measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. All of the wetlands and waterways in the Project Site are waters of the State, which are protected under this act.

Historically, California relied on its authority under Section 401 of the CWA to regulate discharges of dredged or fill material to California waters. That section requires an applicant to obtain “water quality certification” from the State Water Resources Control Board (SWRCB) through its Regional Water Quality Control Boards (RWQCB) to ensure compliance with state water quality standards before certain federal licenses or permits may be issued. The permits subject to Section 401 include permits for the discharge of dredged or fill materials (CWA Section 404 permits) issued by the USACE. Waste discharge requirements under the Porter-Cologne Water Quality Control Act were typically waived for projects that required certification. With the recent changes that limited the jurisdiction of wetlands under the CWA, the SWRCB has needed to rely on the report of waste discharge process.

3.4 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- 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 CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological 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 (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan.

An evaluation of whether or not an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, State, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of, an important resource on a population-wide or region-wide basis.

3.4.1 California Native Plant Society

The California Native Plant Society (CNPS) maintains a list of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the *Inventories of Rare and Endangered Plants of California* (CNPS 2014). Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The following identifies the definitions of the CNPS rankings:

- Rank 1A: Plants presumed Extinct in California
- Rank 1B: Plants Rare, Threatened, or Endangered in California and elsewhere
- Rank 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere
- Rank 3: Plants about which we need more information – A Review List
- Rank 4: Plants of limited distribution – A Watch List

All plants appearing on CNPS List 1 or 2 are considered to meet CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, the CNPS recommends that all Rank 3 and Rank 4 plants be evaluated for consideration under CEQA.

3.5 Local Jurisdiction

3.5.1 City of Roseville Tree Ordinance

The City of Roseville regulates the removal of or impact to protected trees under Chapter 19.66 of the Roseville Municipal Code. Protected trees are defined as any native oak tree, valley oak (*Quercus lobata*), interior live oak (*Quercus wislizeni*), blue oak (*Quercus douglasii*), or hybrid of these species, with a trunk diameter equal to or greater than six inches at breast height (DBH), which is at 54” above grade. No work that might impact the tree, including grading, trenching, or irrigation, is allowed within the protected zone of a protected tree, defined as the dripline radius plus one foot, without a tree permit. No permit is required for the removal of a protected tree under the following situations:

- 1) Trees damaged by thunderstorm, windstorm, flood, earthquake, fire or other natural cause and determined by a peace officer, fire fighter, public utility official, civil defense official or city code enforcement officer, acting in his or her official capacity, to present a danger to persons or property. Upon discovery of a condition justifying removal, the officer or official making the determination shall immediately provide written notification of the condition and action taken to the planning director.
- 2) When removal is determined to be necessary by fire department personnel actively engaged in fighting a fire.
- 3) When compliance would interfere with activities of a public utility necessary to comply with applicable safety regulations and/or necessary to repair or avoid the interruptions of services provided by such a utility. Unless there is an imminent threat to the public health, safety or welfare, the planning director shall be notified prior to the removal by a public utility of a protected tree.
- 4) The planning director may allow removal of a protected tree which has been certified by an arborist to be a dead tree. An arborist-certified dead tree may be removed without any replacement or mitigation requirements.
- 5) A protected tree located on property developed with a single-family or two-family dwelling which has been granted occupancy.
- 6) When a protected living tree presents a hazard to health and safety or structures due to its structural condition and location, the tree may be removed without any replacement or mitigation requirements. The hazardous condition of the tree must be determined by an arborist. The planning director must review the arborist’s determination and consider the location of the protected tree prior to approving removal.

3.5.2 City of Roseville General Plan

The *City of Roseville's General Plan: Open Space and Conservation Element* outlines specific goals, policies, and implementation measures pertaining to the protection of vegetation and wildlife (City of Roseville 2004). The three primary goals are:

Goal 1: Preserve, protect, and enhance a significant system of interconnected natural habitat areas, including creek and riparian corridors, oak woodlands, wetlands, and adjacent grassland areas.

Goal 2: Maintain healthy and well-managed habitat areas in conjunction with one-another, maximizing the potential for compatible open space, recreation, and visual experiences.

Goal 3: Protect special-status species and other species that are sensitive to human activities.

4.0 METHODS

Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this assessment are listed in the **References** section. Site-specific information was reviewed including the following:

- California Department of Fish and Wildlife (CDFW). 2014. California Natural Diversity Data Base (CNDDDB: *Roseville, Sheridan, Lincoln, Gold Hill, Pleasant Grove, Rocklin, Rio Linda, Citrus Heights, and Folsom 7.5-minute series quadrangles*), Sacramento, CA. [Accessed 08/08/2014] (**Appendix A**);
- California Native Plant Society (CNPS). 2014. Inventory of Rare and Endangered Plants (online edition, v8-01a) (CNPS: *Roseville, Sheridan, Lincoln, Gold Hill, Pleasant Grove, Rocklin, Rio Linda, Citrus Heights, and Folsom 7.5-minute series quadrangles*). [Accessed 08/08/2014] (**Appendix A**);
- U.S. Fish and Wildlife Service (USFWS). 2014. *Federal Endangered and Threatened Species that may be affected by Projects in the Roseville 7.5-minute series Quadrangle*. Sacramento, CA. [Accessed 08/08/2014] (**Appendix A**); and
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS). 1980. *Soil Survey of Placer County, California Western Part*. U.S. Department of Agriculture.

A Foothill Associates biologist conducted biological surveys and wetland delineations on August 8, 2014 and September 18, 2014. The surveys consisted of evaluating biological communities, mapping wetlands and waterways, and documenting potential habitat for special-status species with the potential to occur within the Project Site. In addition, all oak trees a minimum of six inches diameter at breast height (DBH) and any trees within the riparian corridor with a minimum of four inches DBH were mapped. Plants observed within the Project Site are identified in **Appendix B**. The results of the wetland delineation are summarized herein and are discussed in detail in a separate report (Foothill Associates 2014). The results are considered preliminary until the Corps verifies the findings.

5.0 RESULTS

5.1 Site Location and Description

The approximately 0.777-acre Project Site is located in a residential area in the City of Rocklin, California. The Project Site is located east of Parkside Way, south of Bent Tree Drive, and north and west of a paved bike path within William “Bill” Hughes Park. The Project Site is located within Township 11 North, Range 6 East, within Section 17 of the *Roseville* USGS 7.5-minute series quadrangle. The centroid of the Project Site is 38° 48’ 3.98” North, 121° 20’ 10.94” West (**Figure 1**).

5.2 Physical Features

5.2.1 Topography and Drainage

The general topography of the Project Site consists of a hillslope in the west, which slopes downward to a relatively flat area in the center and the east. Elevation ranges from 100 feet (30 meters) above mean sea level (MSL) in the northwest to 90 feet (27 meters) above MSL in the central and northeast portions of the Project Site.

Pleasant Grove Creek, a perennial drainage, is located within the Project Site and is mapped as a blue-line feature on the USGS *Roseville* quadrangle. Hydrologic features identified within the Project Site include: Pleasant Grove Creek, a riverine seasonal wetland, and an ephemeral drainage. Water from the riverine seasonal wetland flows south off of the Project Site and drains to Pleasant Grove Creek. Water from the ephemeral drainage originates from a culvert, flows northward, and drains to Pleasant Grove Creek. Water from Pleasant Grove Creek flows westward and drains to the Pleasant Grove Creek Canal. Water from the Pleasant Grove Creek Canal drains to Cross Canal. Water from Cross Canal drains to the Sacramento River, which is a navigable waters of the U.S.

5.2.2 Soils

The USDA Soil Conservation Service (SCS) has mapped three soil units within the Project Site (**Figure 3**). The soil units include: **Cometa-Fiddymment Complex, 1 to 5 Percent Slopes; Xerofluvents, Frequently Flooded;** and **Xerofluvents, Occasionally Flooded**. General characteristics associated with these soil types are described below (USDA, NRCS 1980).

- **(141) Cometa-Fiddymment Complex, 1 to 5 Percent Slopes:** This soil type occurs on low terraces at elevations from 75 to 200 feet. The Cometa soil is a well drained claypan soil that formed in alluvium, mainly from granitic sources. Permeability is very slow. Available water capacity is 4 to 6 inches. The Fiddymment is a well drained soil that is moderately deep over hardpan (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).

- **(194) Xerofluvents, Frequently Flooded:** This soil type consists of small areas of moderately well drained loamy alluvium adjacent to stream channels. Depth to underlying restrictive material is greater than 60 inches. Permeability is moderate to moderately slow. Available water capacity is 8 to 10 inches (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).
- **(193) Xerofluvents, Occasionally Flooded:** This soil type consists of narrow stringers of somewhat poorly drained recent alluvium adjacent to stream channels. Depth to underlying restrictive material is greater than 36 inches. Permeability is variable. Available water capacity is 2.5 to 6 inches (USDA, NRCS 1980). The hydric soils list for Placer County identifies this soil type as hydric (USDA, NRCS 2014).

5.3 Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Fragmentation can also occur when a portion of one or more habitats is converted into another habitat, such as when woodland or scrub habitat is altered or converted into grasslands after a disturbance such as fire, mudslide, or grading activities. Wildlife corridors mitigate the effects of this fragmentation by: (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) on population or local species extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and other needs.

The segment of Pleasant Grove Creek that crosses the central portion of the Project Site is considered a wildlife corridor.

5.4 Biological Communities

Non-native annual grassland is the dominant biological community that occurs within the Project Site. Riparian woodland occurs within and along Pleasant Grove Creek. Aquatic habitat types within the Project Site include: Pleasant Grove Creek, riverine seasonal wetland, and ephemeral drainage. Dominant vegetation observed within each biological community is discussed in detail below. Biological communities are illustrated in **Figure 4**.

5.4.1 Annual Grassland

The Project Site is comprised of 0.748 acre of California annual grassland alliance, which is characterized primarily by an assemblage of non-native grasses and herbaceous species

(**Figure 4**). Dominant vegetation includes: medusahead (*Elymus caput-medusae*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and wild oat (*Avena fatua*).

5.4.2 Riparian Woodland

The Project Site is comprised of approximately 0.018 acres of riparian woodland along Pleasant Grove Creek (**Figure 4**). Dominant hydrophytic vegetation includes: ryegrass (*Festuca perennis*), curly dock (*Rumex crispus*), canary grass (*Phalaris* sp.), nutsedge (*Cyperus eragrostis*), annual beard grass (*Polypogon monspeliensis*), and cocklebur (*Xanthium* sp.). Overstory vegetation occurring along the riparian area includes interior live oak (*Quercus wislizeni*) and valley oak (*Quercus lobata*).

5.4.3 Pleasant Grove Creek

A total of 0.008 acre of Pleasant Grove Creek, a riverine perennial stream, occurs within the Project Site (**Figure 4**). Perennial drainages have well-defined channels that exhibit an ordinary high water mark and generally contain water year round. The water table is located above the stream bed for most of the year. Generally, groundwater is the primary source of water for streamflow and rainfall runoff is a supplemental source of water for stream flow. Pleasant Grove Creek has a continuous flow, or near continuous flow. Pleasant Grove Creek within the Project Site contains sparsely hydrophytic vegetation within and along the scoured banks including the vegetation identified under the *Riparian* biological community.

5.4.4 Riverine Seasonal Wetland

A total of 0.003 acre of riverine seasonal wetland occurs within the Project Site (**Figure 4**). The riverine seasonal wetland receives water from the residential irrigation and stormwater runoff from the road to the west and from a culvert that drains irrigation and stormwater from the residential development to the north. The riverine seasonal wetland drains south through the Project Site, continues southward, and drains to Pleasant Grove Creek. Dominant hydrophytic vegetation includes ryegrass (*Festuca perennis*).

5.4.5 Ephemeral Drainage

A total of 0.001 acre of ephemeral drainage occurs within the Project Site (**Figure 4**). Typically, ephemeral drainages exhibit a defined bed and bank and often show signs of scouring as a result of rapid flow events. The ephemeral drainage within the Project Site originates from an approximately 6-inch culvert, extends northward, and drains to Pleasant Grove Creek. The bed and banks are barely evident along the ephemeral drainage. Dominant vegetation consists of upland species including wild oat and ripgut brome.

5.5 Special-Status Species

Special-status species are plant and animal species that have been afforded special recognition by federal, State, or local resource agencies or organizations. Listed and

special-status species are of relatively limited distribution and may require specialized habitat conditions. Special-status species are defined as meeting one or more of the following criteria:

- Listed or proposed for listing under the CESA or the FESA;
- Protected under other regulations (e.g. Migratory Bird Treaty Act);
- Listed by the CDFW as a Species of Special Concern;
- Identified as species of concern by CNPS; or
- Receive consideration during environmental review under CEQA.

Special-status species considered for this analysis are based on queries of the CNDDDB and the online versions of the USFWS and CNPS species occurrence lists (**Table 1**). **Table 1** includes the common and scientific name for each species, regulatory status (federal, State, local, CNPS), habitat descriptions, and potential for occurrence within the Project Site. **Figure 5** depicts the locations of special-status species recorded in the CNDDDB within five miles of the Project Site. The following set of criteria has been used to determine each species' potential for occurrence on the site:

- **Present:** Species known to occur within the Project Site based on CNDDDB records and/or was observed within the Project Site during the biological surveys.
- **High:** Species known to occur on or near the Project Site (based on CNDDDB records within 5 miles and/or based on professional expertise specific to the Project Site or species) and there is suitable habitat within the Project Site.
- **Low:** Species known to occur in the vicinity of the Project Site and there is marginal habitat within the Project Site. **-OR-** Species is not known to occur in the vicinity of the site, however, there is suitable habitat on the site.
- **None:** Species is not known to occur on or in the vicinity of the Project Site and there is no suitable habitat within the Project Site. **-OR-** Species was surveyed for during the appropriate season with negative results. **-OR-** Species is not known in Placer County. **-OR-** The Project Site occurs outside of the geographic or elevation ranges for the species.

Only those species that are known to be present or that have a high or low potential for occurrence will be discussed further following **Table 1**.

Table 1 — Regionally Occurring Special-Status Species

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Plants			
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	--; --; --; 1B	Annual herb found on mesic soils in valley and foothill grassland from 98 to 329 feet (30 to 100 meters). Blooms March-May.	Low ; the annual grassland provides habitat for this species.
Adobe navarretia <i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	--; --; --; 4	Annual herb found on clay substrate, sometimes on serpentinite substrate in vernal mesic valley and foothill grassland and sometimes in vernal pools from 328 to 3,281 feet (100 to 1,000 meters). Blooms April-June.	None ; the Project Site occurs outside of the elevation range for this species.
Big-scale balsamroot <i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>	--; --; --; 1B	Perennial herb found in chaparral, cismontane woodland, valley and foothill grassland, sometimes on serpentinite from 295 to 4,593 feet (90 to 1,400 meters). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014). Blooms March-June.	None ; the Project Site occurs outside of the elevation range for this species.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	--; CE; --; 1B	Annual herb found on clay soil around the margins of marshes and swamps and in vernal pools from 33 to 7,792 feet (10 to 2,375 meters). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014). Blooms April-August.	None ; the Project Site does not provide habitat for this species.
Brandegee's clarkia <i>Clarkia biloba</i> ssp. <i>biloba</i>	--; --; --; 4	Annual herb found often in roadcuts within chaparral, cismontane woodland, and lower montane coniferous forest from 246 to 3,002 feet (75 to 915 meters). Blooms May-July.	None ; the Project Site occurs outside of the elevation range for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Dwarf downingia <i>Downingia pusilla</i>	--; --; --; 2B	Annual herb found in valley and foothill grassland, which are occasionally mesic, and vernal pools from 3 to 1,460 feet (1 to 445 meters). CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014). Blooms March-May.	High ; the annual grassland provides habitat for this species.
Hispid salty bird's-beak <i>Chloropyron molle</i> ssp. <i>hispidum</i>	--; --; --; 1B	Annual hemiparasitic herb usually found in alkaline substrate in meadows and seeps, playas, and valley and foothill grassland from 3 to 509 feet (1 to 155 meters). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014). Blooms June-September.	None ; although the annual grassland provides habitat, this species was not observed during the September 18, 2014 biological surveys that was conducted within the blooming period.
Legenere <i>Legenere limosa</i>	--; --; --; 1B	Annual herb found in vernal pools from 3 to 2,887 feet (1 to 880 meters). CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014). Blooms April-June.	None ; the Project Site does not provide habitat for this species.
Pincushion navarretia <i>Navarretia myersii</i>	--; --; --; 1B	Annual herb found in vernal pools, which are often acidic, from 66 to 1,083 feet (20 to 330 meters). Blooms April-May.	None ; the Project Site does not provide habitat for this species.
Red Bluff dwarf rush <i>Juncus leiospermus</i> var. <i>leiospermus</i>	--; --; --; 1B	Annual herb usually found in vernal mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools from 115 to 4,101 feet (35 to 1,250 meters). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014). Blooms March-June.	None ; the Project Site occurs outside of the elevation range for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE; CE; --; 1B	Annual herb found in vernal pools from 98 to 328 feet (30 to 100 meters). Populations known from eastern Sacramento County. Blooms April-September.	None ; the Project Site does not provide habitat for this species.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--; --; --; 1B	Perennial rhizomatous herb found in marshes and swamps in assorted shallow freshwater areas from 0 to 2,133 feet (0 to 650 meters). Blooms May-November.	None ; the Project Site does not provide habitat for this species.
Stinkbells <i>Fritillaria agrestis</i>	--; --; --; 4	Perennial bulbiferous herb found on clay, sometimes serpentinite substrate within chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland from 33 to 5,102 feet (10 to 1,555 meters). Blooms March-June.	None ; the Project Site does not contain suitable soils for this species.
Wildlife			
Invertebrates			
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	FE; --; --; --	Large, deep vernal pools and swales and other seasonally inundated aquatic habitats (Eriksen and Belk 1999).	None ; the Project Site does not provide habitat for this species.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT; --; --; --	Blue elderberry shrubs usually associated with riparian areas.	None ; the Project Site does not contain elderberry shrubs, which are obligate host plants for this species.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT; --; --; --	Found in ephemeral wetland habitats and vernal pools within sandstone, alkaline soils, and alluvial fan terraces, within annual grassland and pine forests from 33 to 5,577 feet (10 to 1,700 meters) (Eriksen and Belk, 1999). CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014).	None ; the Project Site does not provide habitat for this species.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE; --; --; --	Vernal pools, swales, and ephemeral freshwater habitat. CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014).	None ; the Project Site does not provide habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Amphibians/Reptiles			
California red-legged frog <i>Rana aurora draytonii</i>	FT; CSC; --; --	Requires a permanent water source and is typically found along quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation. Believed to be extirpated from the Central Valley floor since the 1970s.	Low ; although Pleasant Grove Creek provides aquatic habitat and the riparian habitat surrounding the perennial drainage provides upland habitat, the Project Site occurs outside of the geographical range (CWHR 2014) for the species and this species was not observed during the biological surveys.
Giant garter snake <i>Thamnophis gigas</i>	FT; CT; --; --	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands. Upland habitat should have burrows or other soil crevices suitable for snakes to reside during their dormancy period (November – mid March). Extant populations occur in Sacramento, Sutter, Butte, Colusa, and Glenn counties; along the western border of the Yolo Bypass in Yolo County; and along the eastern fringes of the Sacramento-San Joaquin Delta from the Laguna Creek-Elk Grove region of central Sacramento County southward to the Stockton area of San Joaquin County (Nature Serve 2014).	None ; the Project Site occurs outside of the known geographic range for this species.
Western pond turtle <i>Emys marmorata</i>	--; CSC; --; --	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	Low ; Pleasant Grove Creek provides aquatic habitat for this species. The annual grassland provide upland habitat for this species, however, this species was not observed during the biological surveys.
Western spadefoot <i>Spea hammondi</i>	--; CSC; --; --	Found in open grasslands and woodlands. Requires vernal pools or seasonal wetlands for breeding (Nature Serve 2014). CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014).	None ; although the annual grassland provides upland habitat, there is no breeding habitat for this species within the vicinity of the Project Site.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Fish			
Central Valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FT; CT; --; --	Spawn in large, deep pools in tributaries with moderate velocities in the Sacramento River. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle 2002).	None; the Project Site is outside of the known range for this species.
Central Valley winter-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FE; CE; --; --	Spawn in the upper Sacramento River. Juveniles migrate from spawning grounds to the Pacific Ocean (Moyle 2002).	None; the Project Site is outside of the known range for this species.
Central Valley steelhead <i>Oncorhynchus mykiss</i>	FT, CH; --; --; --	Spawn in the Fresno and San Joaquin rivers and tributaries before migrating to the Delta and Bay Area (Moyle 2002).	None; the Project Site is outside of the known range for this species.
Delta smelt <i>Hypomesus transpacificus</i>	FT; CE; --; --	Known almost exclusively in the Fresno-San Joaquin estuary, from the Suisun Bay upstream through the Delta in Contra Costa, Fresno, San Joaquin, Solano, and Yolo counties. May also occur in the San Francisco Bay (Moyle 2002).	None; the Project Site is outside of the known range for this species.
Birds			
Bank swallow <i>Riparia riparia</i>	--; CT; --; --	Nests in riverbanks and forages over riparian areas and adjacent uplands (Nature Serve 2014).	Low; the riparian woodland within the Project Site provides habitat for this species.
Burrowing owl <i>Athene cunicularia</i>	--; CSC; --; -- (burrowing sites and some wintering sites)	Yearlong resident of open, dry grassland and desert habitats, as well as in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats (Nature Serve 2014). Two CNDDB records are documented within 5 miles of the Project Site (CDFW 2014).	High; the annual grassland within the Project Site provides habitat for this species.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--; CT, FP; --; --	Saltwater, brackish, and freshwater marshes. This species is known from Alameda, Butte, Contra Costa, Imperial, Los Angeles, Marin, Napa, Nevada, Orange, Placer, Sacramento, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma, Sutter, and Yuba counties, in California (Nature Serve 2014).	None; the Project Site does not provide habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
Grasshopper sparrow <i>Ammodramus savannarum</i>	--; CSC; --; --	Frequents dense, dry, or well drained grassland, especially native grassland. Nests at base of overhanging clump of grass. This species is known from Los Angeles, Mendocino, Orange, Placer, Sacramento, San Diego, San Luis Obispo, Solano, and Yuba counties in California.	Low ; the annual grassland within the Project Site provides habitat for this species.
Purple martin <i>Progne subis</i>	--; CSC; --; --	Often nests in tall, old trees near bodies of water in woodland and conifer habitats (Nature Serve 2014). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014).	None ; the trees in the vicinity of the Project Site do not provide nesting habitat for this species.
Song sparrow (Modesto population) <i>Melospiza melodia</i>	--; CT; --; -- (Nesting)	Known in wetland areas and riparian corridors only in the north-central portion of the Sacramento Valley below 61 meters (Shuford and Gardali 2008). Not known to occur in Placer County (Nature Serve 2014).	None ; the Project Site is outside of the known geographic range for this species.
Swainson's hawk <i>Buteo swainsoni</i>	--; CT; --; -- (Nesting)	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations (Nature Serve 2014). CNDDDB records are documented within 5 miles of the Project Site (CDFW 2014).	High ; the trees provide potential nesting habitat and the annual grassland provides foraging habitat; however, this species was not observed during the biological surveys.
Tricolored blackbird <i>Agelaius tricolor</i>	--; CSC; --; -- (nesting colony)	Nests in large flocks, with greater than 50 breeding pairs, in dense vegetation near water or by emergent wetlands. Found nesting in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water. Feeds in grass and cropland habitats (Nature Serve 2014). One CNDDDB record is documented within 5 miles of the Project Site (CDFW 2014).	Low ; the riparian woodland surrounding Pleasant Grove Creek does not provide suitable nesting habitat. The annual grassland provides foraging habitat; however, this species was not observed during the biological surveys.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence within the Project Site
White-tailed kite <i>Elanus leucurus</i>	--; CFP; --; -- (nesting)	Nests in isolated trees or woodland areas with suitable open foraging habitat. One CNDDDB record is documented within 5 miles of the Project Site.	High ; the trees within the riparian woodland provide nesting habitat for this species.
Migratory birds and other birds of prey (hawks, owls, and vultures)	MBTA and §3503.5 Department of Fish and Game Code	Nests in a variety of communities including cismontane woodland, mixed coniferous forest, chaparral, montane meadow, riparian, and urban communities.	High ; the trees within the riparian woodland and the annual grassland provide nesting habitat for birds and raptors.
Mammals			
Pallid bat <i>Antrozous pallidus</i>	--; CSC; --; --	Found in grasslands, shrublands, woodlands, and forests from 0 to 2,000 meters. The species is most common in open, dry habitats with rocky areas for roosting. Roosts in crevices and hollows in trees, rocks, cliffs, bridges, and buildings (Harris 1990).	Low ; potential roosting habitat is present within the trees within the riparian woodland and annual grassland.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	--; CSC; --; --	Inhabits caves, buildings, and tree cavities for night roosts. Maternity and hibernation colonies typically are in caves and mine tunnels (Nature Serve 2014).	Low ; potential roosting habitat is present within the trees within the riparian woodland and annual grassland.
Federally-Listed Species: FE = federal endangered FT = federal threatened CH = critical habitat		California State Listed Species: CE = California state endangered CT = California state threatened CR = California state rare CFP = California Fully Protected CSC = California Species of Special Concern	
FC = candidate PT = proposed threatened FPD = proposed for delisting FD = delisted		CNPS* Rank Categories: 1A = plants presumed extinct in California 1B = plants rare, threatened, or endangered in California and elsewhere 2 = plants rare, threatened, or endangered in California, but common elsewhere 3 = plants about which we need more information 4 = plants of limited distribution	
<i>Source: Foothill Associates</i>			

5.5.1 Special-Status Plants

Based on field observations and literature review specific to the special-status plants listed in **Table 1**, it was determined that one species, dwarf downingia, has a high potential to occur within the Project Site and one species, Ahart's dwarf rush, has a low potential to occur within the Project Site.

Plants Species with a High Potential to Occur

Dwarf Downingia

Dwarf downingia is an annual herb found in valley and foothill grasslands occasionally on mesic soils, and in vernal pools from 3 to 1,460 feet (1 to 445 meters). The blooming period is from March through May (CNPS 2014). CNDDDB records are documented within 5 miles of the Project Site (**Figure 5**) (CDFW 2014). The annual grassland within the Project Site provides habitat for this species. This species has a high potential to occur within the Project Site.

Plants Species with a Low Potential to Occur

Ahart's Dwarf Rush

Ahart's dwarf rush is an annual herb found on mesic soils in valley and foothill grassland from 98 to 329 feet (30 to 100 meters). The blooming period is from March through May (CNPS 2014). The annual grassland within the Project Site provides habitat for this species. This species has a low potential to occur within the Project Site.

5.5.2 Listed and Special-Status Wildlife

Based on field observations and literature review specific to the special-status wildlife species listed in **Table 1**, the following wildlife have a high potential to occur within the Project Site: burrowing owl, Swainson's hawk, white-tailed kite, and migratory birds and other birds of prey. The following special-status wildlife have a low potential to occur within the Project Site: California red-legged frog, western pond turtle, bank swallow, grasshopper sparrow, tricolored blackbird, and special-status bats. These species are discussed in detail below.

Wildlife Species with a High Potential to Occur

Burrowing Owl

Burrowing owl is a small ground-dwelling owl that occurs in western North America from Canada to Mexico and east to Texas and Louisiana. Although in certain areas of its range burrowing owls are migratory, these owls are predominantly non-migratory in California. The breeding season for burrowing owls occurs from March to August, peaking in April and May (Zeiner *et. al.* 1990). Burrowing owls nest in burrows in the ground, often in old ground squirrel burrows. Burrowing owl is also known to use artificial burrows including pipes, culverts, and nest boxes. There are two CNDDDB records for this species within five miles of the Project Site (**Figure 5**) (CDFW 2014). The annual grassland provides habitat for this species. Small mammal burrows were observed within the annual grassland that could be utilized by burrowing owl. No burrowing owl or sign of the owl were observed during the biological surveys. This species has a high potential to occur within the annual grassland.

Swainson's Hawk

Swainson's hawk is a long-distance migrant with nesting grounds in western North America. The Swainson's hawk population that nests in the Central Valley winters primarily in Mexico, while the population that nests in the interior portions of North America winters in South America (Bradbury *et. al.* in prep.). Swainson's hawks arrive in the Central Valley between March and early April to establish breeding territories. Breeding occurs from late March to late August, peaking in late May through July (Zeiner *et. al.* 1990). In the Central Valley, Swainson's hawks nest in isolated trees, small groves, or large woodlands next to open grasslands or agricultural fields. This species typically nests near riparian areas; however, it has been known to nest in urban areas as well. Nest locations are usually in close proximity to suitable foraging habitats, which include fallow fields, annual grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops. Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and De Water 1994). There are four CNDDDB records for this species within 5 miles of the Project Site (**Figure 5**) (CDFW 2014). The nearest CNDDDB occurrence (occurrence number 2115) is from 2009 and is approximately 0.15 miles northeast of the Project Site. The record states that an active nest was observed within a blue oak in 2009. No Swainson's hawks were observed in the vicinity of the Project Site during the biological surveys. Swainson's hawk have a high potential to nest and forage within the Project Site.

White-Tailed Kite

White-tailed kite is a year-long resident in coastal and valley lowlands in California. White-tailed kite breed from February to October, peaking from May to August (Zeiner *et. al.* 1990). This species nests near the top of dense oaks, willows, or other large trees. There is one CNDDDB record of white-tailed kite listed within 5 miles of the Project Site (**Figure 5**) (CDFW 2014). The trees within the riparian woodland habitat provide nesting habitat for this species. This species has a high potential to nest within the Project Site.

Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, have the potential to nest in the trees within the riparian woodland and within the annual grassland. Several birds protected under the MBTA and/or Section 3503 of the California Fish and Game Code were observed foraging in the vicinity of the Project Site including: northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), turkey vulture (*Cathartes aura*), and western meadowlark (*Sturnella neglecta*). Migratory birds and other birds of prey have a high potential to nest within the Project Site during the nesting season. The generally accepted nesting season is from February 15 through August 31.

Wildlife Species with a Low Potential to Occur

California Red-Legged Frog

California red-legged frogs (CRLF) typically inhabit ponds, slow-moving creeks, and streams with deep pools that are lined with dense emergent marsh or shrubby riparian vegetation. Submerged root masses and undercut banks are important habitat features for this species. Although CRLF historically occurred throughout much of the Central Valley, it is widely accepted that they have been extirpated from there for more than 50 years. All of the extant records for CRLF in the Sierras are over 800 feet above MSL (pers. comm. Mark Jennings, Rana Resources, September 18, 2013). Below this elevation, aquatic habitat generally supports stronger populations of non-native predators associated with warm water habitats such as bullfrogs (*Lithobates catesbeiana*) and Centrarchid fish (pers. comm. Mark Jennings, Rana Resources, September 18, 2013). The Project Site occurs between approximately 90 to 100 feet (27 to 30 meters) above MSL.

There are no known CNDDDB occurrences for this species within 5 miles of the Project Site. There is a CNDDDB occurrence approximately 14.3 miles southeast of the Project Site along a small drainage feeding directly into the east side of Folsom Lake (Occurrence Number 814), however, the validity of this record is highly questionable due to the low elevation (approximately 500 feet above MSL), the proximity to urban development and to Folsom Lake, and the abundant nonnative predators that it supports (pers. comm. Mark Jennings, Rana Resources, September 18, 2013). The record states that a juvenile frog was sighted on a small footbridge crossing a drainage leading into Folsom Lake from an adjacent residential development. This frog was most likely a juvenile bullfrog, which, to the untrained eye, can be easily confused with a juvenile CRLF (pers. comm. Mark Jennings, Rana Resources, September 18, 2013). Even if this were a valid record, this location is separated from the Project Site by a number of impassible barriers including major roadways and urban development. The nearest valid CNDDDB occurrence (Occurrence Numbers 1284) is over 30 miles northeast of the Project Site. The occurrence states that CRLF was observed in a series of small pools/wet areas in a drainage stream channel. In addition, existing literature indicates that CRLF may have been extirpated from the floor of the Central Valley prior to the 1960s (USFWS 2002).

Pleasant Grove Creek provides low quality habitat for this species given the lack of deep pools and the highly scoured banks within the Project Site. The riparian woodland surrounding Pleasant Grove Creek provides marginal upland habitat given the sparse riparian vegetation. Although marginally suitable habitat is present, the Project Site is outside the known geographic range (USFWS 2002), is outside of the known extant elevation range inhabited by CRLF, and there are no known CNDDDB occurrences for CRLF within 30 miles of the Project Site. No CRLF were observed during the biological surveys of the Project Site. Although unlikely, CRLF has a low potential to occur within the Project Site.

Western Pond Turtle

Western pond turtles require slow moving perennial aquatic habitats with suitable basking sites. Western pond turtles occasionally inhabit irrigation ditches. Suitable aquatic habitat typically has a muddy or rocky bottom and has emergent aquatic vegetation for cover (Stebbins 2003). Pleasant Grove Creek provides aquatic habitat and the annual grassland adjacent to the creek provides upland habitat for this species. No western pond turtles were observed within the Project Site during the biological surveys. This species has a low potential to occur within the Project Site.

Bank Swallow

Bank swallows nest in riverbanks and forage over riparian areas and adjacent uplands (Nature Serve 2014). The banks of Pleasant Grove Creek provide nesting habitat and the riparian woodland and annual grassland provide foraging habitat for this species. No bank swallows were observed during the biological surveys. This species has a low potential to occur within the Project Site.

Grasshopper Sparrow

Grasshopper sparrow habitat consists of moderately open grasslands and prairies with patchy bare ground. The annual grassland provides nesting and foraging habitat for this species. No grasshopper sparrows were observed during the biological surveys of the Project Site. This species has a low potential to occur within the Project Site.

Tricolored Blackbird

Tricolored blackbird is a colonial species that occurs in pastures, dry seasonal pools, and agricultural fields in the Central Valley and the surrounding foothills. This species usually nests within dense cattails (*Typha* sp.) or tules (*Scirpus* sp.) in emergent wetlands. Tricolored blackbird also nests in thickets of blackberry (*Rubus* sp.), wild rose (*Rosa* sp.), willows, and tall herbs (Zeiner *et. al.* 1990). Nesting locations typically must be large enough to support a minimum colony of approximately 50 pairs (Zeiner *et. al.* 1990). There is one CNDDDB record for this species within 5 miles of the Project Site (**Figure 5**) (CDFW 2014). The annual grassland provides foraging habitat for this species. The riparian woodland and the perennial drainage do not provide a sufficient size of suitable vegetation necessary to support a breeding colony. No tricolored blackbirds were observed within the Project Site. This species has a low potential to occur within the Project Site.

Special-Status Bat Species

California is home to several special-status bat species. Bat numbers are in decline throughout the U.S. due to loss of roosting habitat, habitat conversion, and habitat alteration. The trees within the riparian woodland provide roosting habitat and annual grassland provides foraging habitat for special-status bats. No bat species were observed

roosting during the biological surveys of the Project Site. These species have a low potential to roost within the Project Site.

5.6 Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or those that are protected under CEQA, Section 1600 of the California Fish and Game Code, or Section 404 of the Clean Water Act. Additionally, sensitive habitats are protected under the specific policies outlined in the *City of Roseville General Plan*. Sensitive habitats within the Project Site include: potential waters of the U.S, riparian woodland; and oak trees (**Figure 4**).

5.6.1 Potential Jurisdictional Waters of the U.S.

Potential jurisdictional waters of the U.S. within the Project Site total approximately 0.012 acre. This acreage includes: 0.008 acre of Pleasant Grove Creek, which is a perennial drainage, 0.003 acre of riverine seasonal wetland, 0.001 acre of ephemeral drainage. The extent of jurisdictional features within the Project Site has not been verified by the Corps as of the date of preparation of this BRA. The potential jurisdictional waters of the U.S. may also be subject to both CDFW and RWQCB jurisdiction.

5.6.2 Riparian Woodland

Riparian woodland habitat is considered a sensitive habitat. The CDFW asserts jurisdiction over riparian habitat.

5.6.3 Oak Trees

The Project Site contains oak trees within the riparian woodland habitat. Removal of oaks with trunk diameters equal to or greater than six inches DBH and work within the dripline plus one foot of these trees are regulated under Chapter 19.66 of the Roseville Municipal Code.

6.0 DISCUSSION AND RECOMMENDATIONS

Known or potential biological constraints on the site include the following:

- Potential habitat for Adobe dwarf rush (*Juncus leiospermus* ssp. *ahartii*) and dwarf downingia (*Downingia pusilla*);
- Potential habitat for California red-legged frog (*Rana aurora draytonii*);
- Potential habitat for western pond turtle (*Emys marmorata*);
- Potential nesting and foraging habitat for burrowing owl (*Athene cunicularia*);
- Potential nesting and foraging habitat for Swainson's hawk (*Buteo swainsoni*);
- Potential nesting sites and foraging habitat for migratory birds and raptors including: bank swallow (*Riparia riparia*), grasshopper sparrow (*Ammodramus savannarum*), and white-tailed kite (*Elanus leucurus*);
- Potential foraging habitat for tricolored blackbird (*Agelaius tricolor*);
- Potential habitat for special-status bat species; and
- Sensitive habitats (potential jurisdictional waters of the U.S and oak trees protected by the City of Roseville).

6.1 Special-Status Plants

The annual grassland within the Project Site provides habitat for potentially occurring non-listed special-status plants including: Ahart's dwarf rush (blooms March through May) and dwarf downingia (blooms March through May). A qualified botanist should conduct a single botanical survey of the Project Site some time between March and May within the blooming period for potentially occurring special-status plants. A letter report should be submitted to the applicant within 30 days following the bloom survey to document the results. If no special-status plants are observed, then no additional measures are recommended.

If any of the non-listed special-status plants occur within the Project Site, they should be avoided to the extent feasible. If the plants cannot be avoided, a mitigation plan should be prepared in consultation with the CDFW. At minimum, the mitigation plan should include locations where the plants will be transplanted in suitable habitat adjacent to the Project Site, success criteria, and monitoring activities. The CDFW would need to approve the mitigation plan prior to transplantation and commencement of construction activities.

6.2 California Red-Legged Frog

Although marginally suitable habitat is present, the Project Site is surrounded by residential development, is outside of the known extant elevation range inhabited by CRLF, and there are no known CNDDDB occurrences for CRLF within 30 miles of the Project Site. Further, Pleasant Grove Creek provides low quality habitat for this species given the lack of deep pools and the presence of highly scoured banks within the Project Site. This species is not likely to occur within the Project Site. However, a pre-construction survey is recommended within 14 days prior to the start of excavation and grading activities or work associated with spanning the bridge over Pleasant Grove Creek. If no CRLF are observed, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days, a new survey is recommended.

If CRLF are found, consultation with the USFWS would be required. Construction would be delayed until the USFWS authorizes the work.

6.3 Western Pond Turtle

Pleasant Grove Creek and the annual grassland provide habitat for western pond turtle. A pre-construction survey for western pond turtle is recommended within 14 days prior to the start of ground disturbance. Ground disturbance includes any grading and excavation activities and any work associated with spanning the bridge over Pleasant Grove Creek. If no western pond turtles are observed, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days, a new survey is recommended.

If western pond turtles are found, consultation with the CDFW is recommended to determine avoidance measures. Recommended avoidance measures include having a qualified biologist on site during grading activities, work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area for the purpose of relocating any species found within the construction footprint to suitable habitat away from the construction zone, but within the vicinity of the Project Site.

6.4 Burrowing Owl

Burrowing owl has a high potential to occur within the annual grassland. The applicant should retain a qualified biologist to conduct burrowing owl surveys during the peak breeding season (April 15 and July 15), in accordance with the 2012 *California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation* (2012 Staff Report) (CDFG 2012). The survey area includes an approximately 500-foot (150-meter) buffer around the Project Site, where access is permitted. The report should be submitted to the CDFW, as indicated in the 2012 Staff Report. If the surveys are negative, then no additional measures are recommended.

If active burrows are observed within 500 feet of the Project Site, an impact assessment should be prepared and submitted to the CDFW, in accordance with the 2012 Staff

Report. If it is determined that project activities may result in impacts to nesting, occupied, and satellite burrows and/or burrowing owl habitat, the applicant should consult with the CDFW and develop a detailed mitigation plan such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced. The mitigation plan should be based on the requirements set forth in Appendix A of the 2012 Staff Report.

6.5 Migratory Birds and Other Birds of Prey

Migratory birds and other birds of prey, protected under 50 CFR 10 of the MBTA and/or Section 3503 of the California Fish and Game Code, including bank swallow, grasshopper sparrow, and white-tailed kite have the potential to nest within the trees within the riparian woodland and within the annual grassland. Foraging habitat is not protected for these species as well as for tricolored blackbird. Vegetation clearing operations, including pruning or removal of trees and shrubs, should be completed between September 1 to February 14, if feasible. If vegetation removal begins during the nesting season (February 15 to August 31), a qualified biologist should conduct a pre-construction survey for active nests within 500 feet of the Project Site. The pre-construction survey should be conducted within 14 days prior to commencement of vegetation removal. In addition, a pre-construction survey should be conducted within 14 days prior to commencement of excavation activities associated with the flood control excavation area and work associated with the bridge installation over Pleasant Grove Creek, if these project activities are anticipated to commence during the nesting season. If the pre-construction surveys show that there are no evidence of active nests, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional pre-construction survey would be recommended.

If any active nests are located within the vicinity of the Project Site, an appropriate buffer zone should be established around the nests. The biologist should delimit an appropriate buffer zone with construction tape or pin flags and maintain the buffer zone until the end of the breeding season or the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests, excluding Swainson's hawk. If active nests are found on site, a qualified biologist should monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. Guidance from the CDFW would be recommended if establishing the typical buffer zone is impractical.

6.6 Swainson's Hawk

Swainson's hawk has the potential to forage within the annual grassland in the Project Site. The CDFW considers whether a proposed project will adversely affect suitable foraging habitat within a 10-mile radius of a Swainson's hawk nest that has been active within the last 5 years regardless of whether the nest was occupied in the same year that the lead agency establishes the environmental baseline (CDFG 1994). The CDFW does not consider impacts to less than 5 acres to be significant. The Proposed Project would

remove 0.748 acre of annual grassland. Therefore, no impacts to foraging habitat are recommended.

Swainson's hawk has the potential to nest in and within ¼ miles of the Project Site. A qualified biologist should conduct a protocol level pre-construction survey during the recommended survey period immediately prior to the anticipated commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000). The qualified biologist should conduct the survey for nesting Swainson's hawk in the Project Site and within ¼ miles of construction activities where legally permitted. If no active Swainson's hawk nests are identified on or within ¼ miles of construction activities within the recommended survey period, a letter report summarizing the survey results should be submitted to the applicant and the CDFW within 30 days following the survey, and no further mitigation for nesting habitat is recommended.

If active Swainson's hawk nests are found within ¼ miles of the Project Site, the biologist should contact the applicant and the CDFW within one day following the pre-construction survey to report the findings. Construction activities include heavy equipment operation associated with construction or other project-related activities that could cause nest abandonment or forced fledging within ¼ miles of an active nest site. Should an active nest be present within ¼ miles of construction areas, then the CDFW should be consulted to establish an appropriate noise buffer, develop take avoidance measures, and implement a monitoring and reporting program prior to any construction activities occurring within ¼ miles of the nest. The monitoring program should include an onsite biologist to monitor all grading activities, work associated with the bridge installation over Pleasant Grove Creek, and excavation activities associated with the flood control excavation area that occur within the established buffer zone to ensure that disruption of the nest or forced fledging does not occur.

6.7 Special-Status Bat Species

The trees within the riparian woodland provide roosting habitat for special-status bats. Pre-construction surveys for special-status bat species are recommended within 14 days prior to the start of ground disturbance and tree removal. If no bats are observed, then no additional measures are recommended. If construction does not commence within 14 days of the pre-construction survey or halts for more than 14 days a new survey is recommended.

If bats are found, consultation with the CDFW is recommended to determine avoidance measures. Recommended avoidance measures include establishing a buffer around the roost tree until it is no longer occupied. If the bat is roosting in a tree anticipated for removal, then that tree should not be removed until a biologist has determined that the tree is no longer occupied by the bat.

6.8 Sensitive Habitats

Potential jurisdictional waters of the U.S. within the Project Site total approximately 0.012 acre. This acreage includes: 0.008 acre of Pleasant Grove Creek, a perennial drainage, 0.003 acre of riverine seasonal wetland, and 0.001 acre of ephemeral drainage. A preliminary jurisdictional delineation has been prepared for the Project Site (Foothill Associates 2014). The delineation is considered preliminary until it is verified by the Corps. These areas are potentially regulated by Sections 404 and 401 of the Clean Water Act. The Proposed Project is designed to avoid impacts to Pleasant Grove Creek. The Proposed Project would impact 0.003 acre of riverine seasonal wetland and 0.001 acre of ephemeral drainage, which are potential waters of the U.S. and waters of the State. Therefore, a Section 404 permit should be obtained by the Corps and a Section 401 Water Quality Certification should be obtained by the Regional Water Quality Control Board (RWQCB) prior to the issuance of a grading permit. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed should be replaced or rehabilitated on a “no-net-loss” basis in accordance with the Corps mitigation guidelines. Habitat restoration, rehabilitation, and/or replacement should be at a location and by methods agreeable to the Corps.

If the Proposed Project would result in impacts to the bed and bank of the perennial drainage or result in the removal of riparian vegetation, then a Section 1600 Streambed Alteration Agreement may be required prior to the issuance of a grading permit.

The Proposed Project would result in the removal of two interior live oak trees protected under Chapter 19.66 of the Roseville Municipal Code. One interior live oak is in fair to poor condition and is comprised of a multi-trunk of 2.5, 9, and 11-inch DBHs. The other interior live oak is in fair condition and is comprised of a multi-trunk of 9, 4, and 2-inch DBHs. In addition, excavation activities associated with the flood control excavation area would occur within the dripline of an interior live oak in fair condition and comprised of a multi-trunk of approximately 12, 5, 8, and 10 inch DBHs.

Removal of these trees and work within the dripline plus one foot of any of the other protected oak trees in the vicinity of the Project Site would require a tree permit.

6.9 Summary of Avoidance and Minimization Measures

- If wetlands or riparian areas will be impacted by the Proposed Project, apply for appropriate permits from the Corps, the RWQCB, and/or the CDFW.
- Conduct a botanical survey within the blooming periods for the special-status plants with the potential to occur within the Project Site.
- Within 14 days prior to the initiation of construction activities, conduct a pre-construction survey for CRLF, western pond turtle, and special-status bats.
- Conduct clearing and tree removal operations between September 1 and February 14 to minimize potential impacts to nesting birds.

- Conduct a protocol-level pre-construction survey during the recommended survey period immediately prior to the anticipated commencement of construction activities, in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee 2000).
- If construction begins during the nesting season (February 15 to August 31), conduct a pre-construction survey for active bird nests within the Project Site.
- Conduct surveys for burrowing owl between April 15 and July 15, in accordance with the 2012 Staff Report.
- Obtain a tree permit for removal of oak trees and work within the driplines plus one foot of protected trees.

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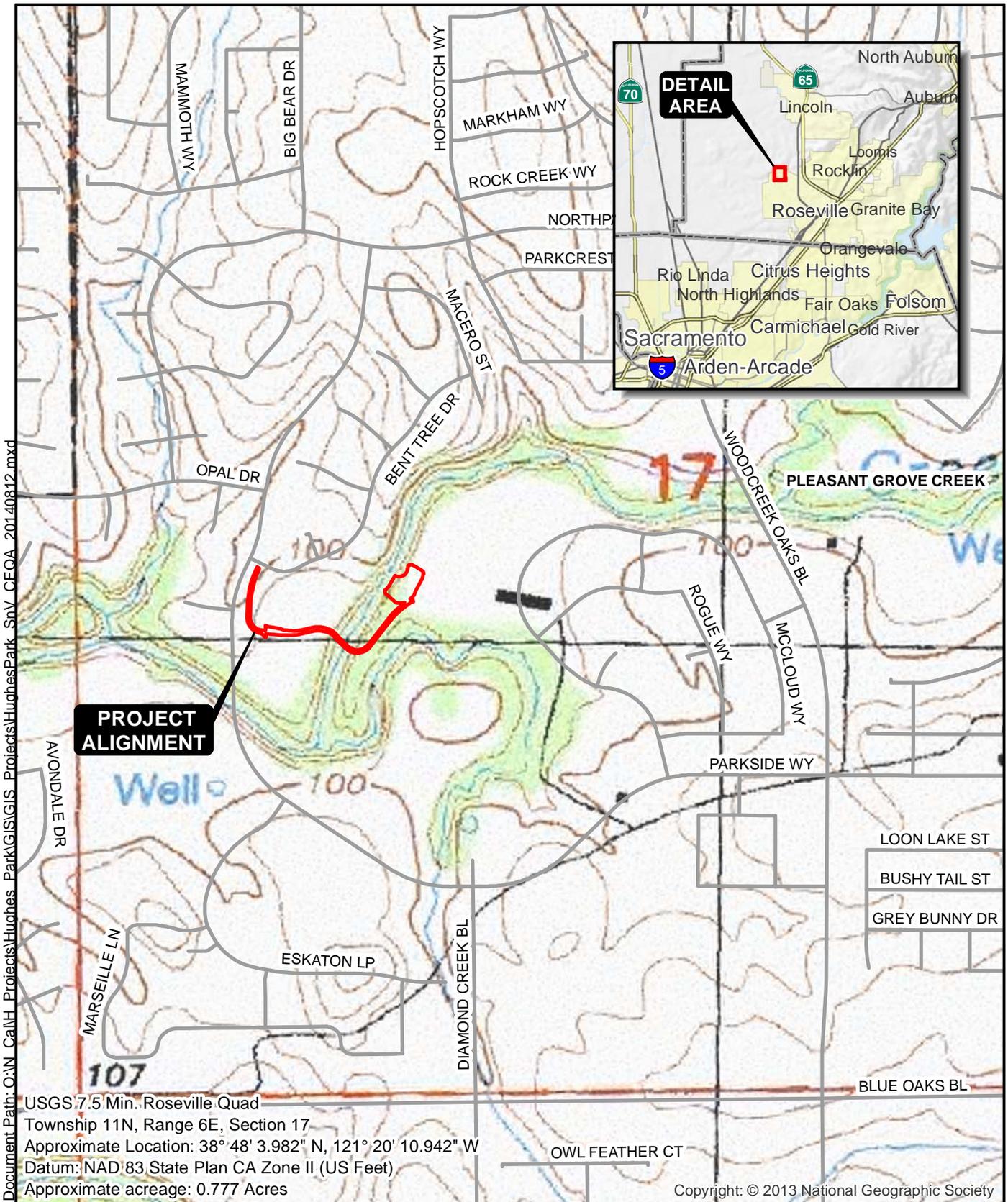
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Personal Communication

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SITE AND VICINITY

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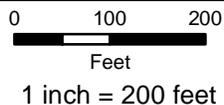
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 FEET
 1 inch = 600 feet

Drawn By: KER
 Date: 10/10/2014

FIGURE 1



PROPOSED PROJECT

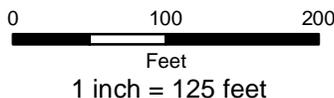


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Date: 10/22/2014

FIGURE 2



SOILS

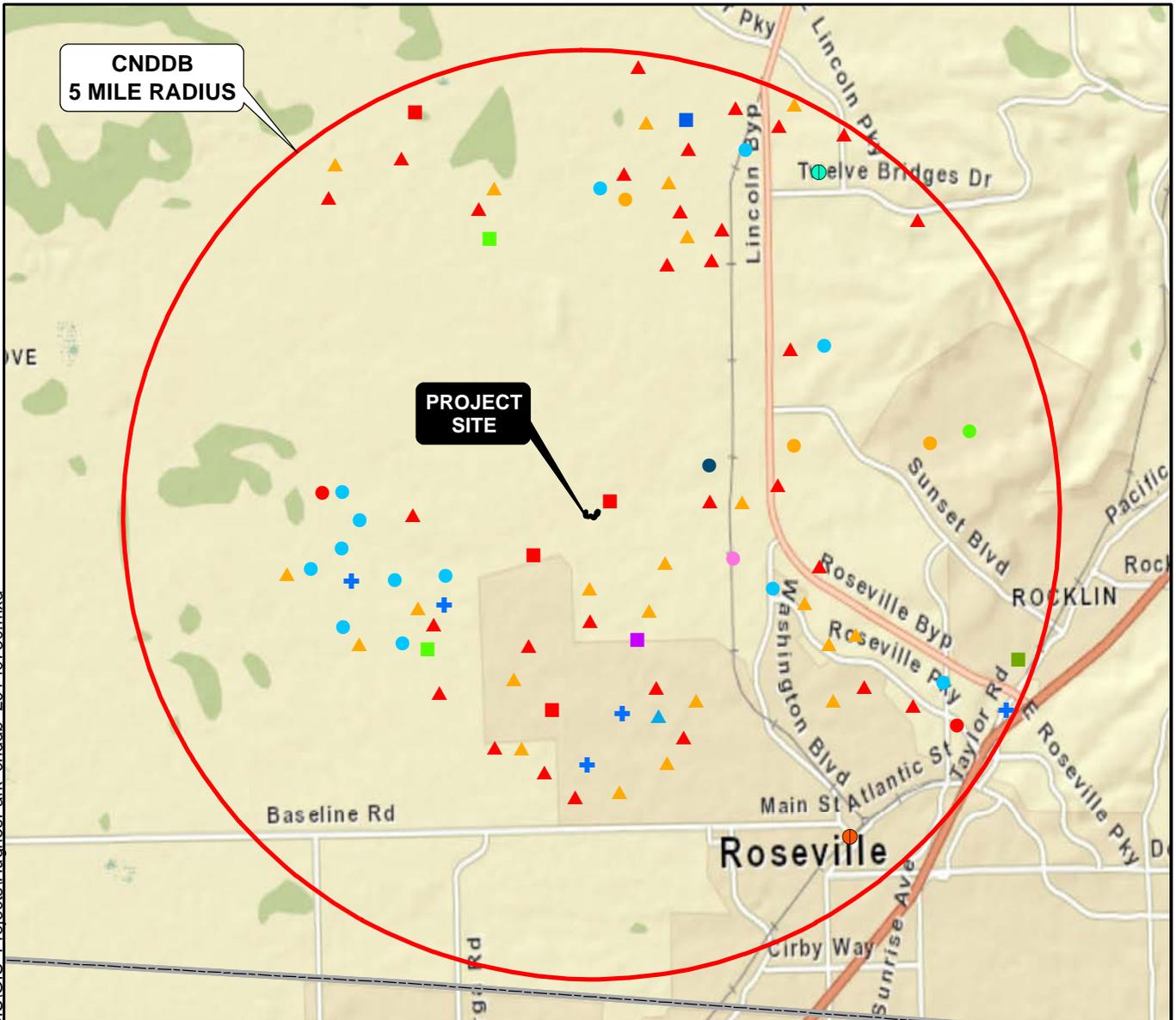




BIOLOGICAL COMMUNITIES



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CNDDDB Occurrences					
● (pink)	big-scale balsamroot	▲ (yellow)	California linderiella	■ (green)	burrowing owl
● (red)	Boggs Lake hedge-hyssop	▲ (red)	vernal pool fairy shrimp	■ (purple)	purple martin
● (blue)	dwarf downingia	▲ (blue)	vernal pool tadpole shrimp	■ (red)	Swainson's hawk
● (green)	hispid salty bird's-beak	● (teal)	Ricksecker's water scavenger beetle	■ (blue)	tricolored blackbird
● (orange)	legenere	● (orange)	vernal pool andrenid bee	■ (purple)	white-tailed kite
● (dark blue)	Red Bluff dwarf rush	+	western spadefoot		

SOURCE: Department of Fish and Wildlife; CA Natural Diversity Database (CNDDDB), 09/05/2014. CNDDDB points are centroids of polygon occurrences. These points do not represent actual point locations of occurrence.

Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom

CNDDDB		<p>SCALE IN MILES</p>		<p>Drawn By: MUB Date: 09/18/2014</p>	FIGURE 5
<p>FOOTHILL ASSOCIATES ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE © 2014</p>					

Appendix A — CNDDDB, USFWS, and CNPS Lists

Query Summary:

Quad **IS** (Roseville (3812173) **OR** Sheridan (3812184) **OR** Lincoln (3812183) **OR** Gold Hill (3812182) **OR** Pleasant Grove (3812174) **OR** Rocklin (3812172) **OR** Rio Linda (3812164) **OR** Citrus Heights (3812163) **OR** Folsom (3812162))

CNDDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Accipiter cooperii	Cooper's hawk	Birds	ABNKC12040	102	1	None	None	G5	S3	null	CDFW_WL-Watch List IUCN_LC-Least Concern	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest
Agelaius tricolor	tricolored blackbird	Birds	ABPBXB0020	429	5	None	None	G2G3	S1S2	null	ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFWS_BCC-Birds of Conservation Concern	Freshwater marsh Marsh & swamp Swamp Wetland
Alkali Meadow	Alkali Meadow	Herbaceous	CTT45310CA	8	1	None	None	G3	S2.1	null	null	Meadow & seep Wetland
Alkali Seep	Alkali Seep	Herbaceous	CTT45320CA	10	1	None	None	G3	S2.1	null	null	Meadow & seep Wetland
Ammodramus savannarum	grasshopper sparrow	Birds	ABPBXA0020	16	1	None	None	G5	S2	null	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Valley & foothill grassland
Andrena subapasta	an andrenid bee	Insects	IIHYM35210	5	2	None	None	G1G2	S1S2	null	null	null
Antrozous pallidus	pallid bat	Mammals	AMACC10010	402	1	None	None	G5	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley & foothill grassland
											CDF_S-Sensitive	Brackish marsh Estuary Freshwater

Ardea alba	great egret	Birds	ABNGA04040	35	4	None	None	G5	S4	null	IUCN_LC-Least Concern	marsh Marsh & swamp Riparian forest Wetland
Ardea herodias	great blue heron	Birds	ABNGA04010	132	9	None	None	G5	S4	null	CDF_S-Sensitive IUCN_LC-Least Concern	Brackish marsh Estuary Freshwater marsh Marsh & swamp Riparian forest Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1858	12	None	None	G4	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley & foothill grassland
Balsamorhiza macrolepis	big-scale balsamroot	Dicots	PDAST11061	43	2	None	None	G2	S2	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland
Branchinecta conservatio	Conservancy fairy shrimp	Crustaceans	ICBRA03010	42	1	Endangered	None	G1	S1	null	IUCN_EN-Endangered	Valley & foothill grassland Vernal pool Wetland
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	639	56	Threatened	None	G3	S2S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland Vernal pool Wetland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2394	28	None	Threatened	G5	S3	null	ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Great Basin grassland Riparian forest Riparian woodland Valley & foothill grassland
Chloropyron molle ssp. hispidum	hispid salty bird's-beak	Dicots	PDSCR0J0D1	35	1	None	None	G2T2	S2	1B.1	BLM_S-Sensitive	Alkali playa Meadow & seep Wetland
Clarkia biloba ssp. brandegeeeae	Brandegee's clarkia	Dicots	PDONA05053	89	3	None	None	G4G5T4	S4	4.2	BLM_S-Sensitive	Chaparral Cismontane woodland Lower montane coniferous forest
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	517	1	None	Candidate Threatened	G3G4	S2S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow & seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley & foothill grassland
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	204	11	Threatened	None	G3T2	S2	null	null	Riparian scrub

Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	127	26	None	None	GU	S2	2B.2	null	Valley & foothill grassland Vernal pool Wetland
Elanus leucurus	white-tailed kite	Birds	ABNKC06010	158	16	None	None	G5	S3	null	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern	Cismontane woodland Marsh & swamp Riparian woodland Valley & foothill grassland Wetland
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1136	8	None	None	G3G4	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh & swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland
Falco columbarius	merlin	Birds	ABNKD06030	34	1	None	None	G5	S3	null	CDFW_WL-Watch List IUCN_LC-Least Concern	Estuary Great Basin grassland Valley & foothill grassland
Fritillaria agrestis	stinkbells	Monocots	PMLIL0V010	32	4	None	None	G3	S3.2	4.2	null	Chaparral Cismontane woodland Ultramafic Valley & foothill grassland
Gratiola heterosepala	Boggs Lake hedge-hyssop	Dicots	PDSCR0R060	94	5	None	Endangered	G2	S2	1B.2	BLM_S-Sensitive	Freshwater marsh Marsh & swamp Vernal pool Wetland
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	1	None	None	G2?	S2?	null	null	Aquatic Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Monocots	PMJUN011L1	13	1	None	None	G2T1	S1	1B.2	null	Valley & foothill grassland Vernal pool Wetland
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	Monocots	PMJUN011L2	56	1	None	None	G2T2	S2	1B.1	BLM_S-Sensitive USFS_S-Sensitive	Chaparral Cismontane woodland Meadow & seep Valley & foothill grassland Vernal pool Wetland
Lasionycteris noctivagans	silver-haired bat	Mammals	AMACC02010	138	2	None	None	G5	S3S4	null	IUCN_LC-Least Concern WBWG_M-Medium Priority	Lower montane coniferous forest Oldgrowth Riparian forest
Laterallus jamaicensis cotumiculus	California black rail	Birds	ABNME03041	241	2	None	Threatened	G4T1	S1	null	ABC_WLBCC-Watch List of Birds of Conservation Concern BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_NT-Near Threatened USFWS_BCC-Birds of Conservation Concern	Brackish marsh Freshwater marsh Marsh & swamp Salt marsh Wetland
Legenere limosa	legenere	Dicots	PDCAM0C010	78	5	None	None	G2	S2	1B.1	BLM_S-Sensitive	Vernal pool Wetland

Lepidurus packardii	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	266	6	Endangered	None	G3	S2S3	null	IUCN_EN-Endangered	Valley & foothill grassland Vernal pool Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	384	55	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Melospiza melodia	song sparrow ("Modesto" population)	Birds	ABPBXA3010	92	2	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern	null
Navarretia myersii ssp. myersii	pincushion navarretia	Dicots	PDPLM0C0X1	14	2	None	None	G1T1	S1	1B.1	null	Vernal pool Wetland
Northern Claypan Vernal Pool	Northern Claypan Vernal Pool	Herbaceous	CTT44120CA	21	1	None	None	G1	S1.1	null	null	Vernal pool Wetland
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	9	None	None	G3	S3.1	null	null	Vernal pool Wetland
Northern Volcanic Mud Flow Vernal Pool	Northern Volcanic Mud Flow Vernal Pool	Herbaceous	CTT44132CA	7	5	None	None	G1	S1.1	null	null	Vernal pool Wetland
Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	3	Threatened	None	G5T2	S2	null	AFS_TH-Threatened	Aquatic Sacramento/San Joaquin flowing waters
Orcuttia viscida	Sacramento Orcutt grass	Monocots	PMPOA4G070	12	3	Endangered	Endangered	G1	S1	1B.1	null	Vernal pool Wetland
Pandion haliaetus	osprey	Birds	ABNKC01010	482	1	None	None	G5	S3	null	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	Riparian forest
Phalacrocorax auritus	double-crested cormorant	Birds	ABNFD01020	37	1	None	None	G5	S3	null	CDFW_WL-Watch List IUCN_LC-Least Concern	Riparian forest Riparian scrub Riparian woodland
Progne subis	purple martin	Birds	ABPAU01010	45	2	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Broadleaved upland forest Lower montane coniferous forest
Riparia riparia	bank swallow	Birds	ABPAU08010	296	2	None	Threatened	G5	S2S3	null	BLM_S-Sensitive IUCN_LC-Least Concern	Riparian scrub Riparian woodland
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	93	5	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp Wetland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	423	6	None	None	G3	S3	null	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near	Cismontane woodland Coastal scrub Valley & foothill grassland Vernal pool Wetland

											Threatened	
Thamnophis gigas	giant garter snake	Reptiles	ARADB36150	271	4	Threatened	Threatened	G2	S2	null	IUCN_VU-Vulnerable	Marsh & swamp Riparian scrub Wetland
Valley Needlegrass Grassland	Valley Needlegrass Grassland	Herbaceous	CTT42110CA	45	1	None	None	G3	S3.1	null	null	Valley & foothill grassland

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the
ROSEVILLE (528D)
U.S.G.S. 7 1/2 Minute Quad**

Report Date: August 7, 2014

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta lynchi
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardi
vernal pool tadpole shrimp (E)

Fish

Hypomesus transpacificus
delta smelt (T)

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Oncorhynchus tshawytscha

Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Rana draytonii

California red-legged frog (T)

Reptiles

Thamnophis gigas

giant garter snake (T)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

Plant List

13 matches found. *Click on scientific name for details*

Search Criteria

Found in 9 Quads around 38121G3

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
<u>Balsamorhiza macrolepis</u>	big-scale balsamroot	Asteraceae	perennial herb	1B.2	S2	G2
<u>Chloropyron molle ssp. hispidum</u>	hispid bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	1B.1	S2	G2T2
<u>Clarkia biloba ssp. brandegeae</u>	Brandegee's clarkia	Onagraceae	annual herb	4.2	S4	G4G5T4
<u>Downingia pusilla</u>	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
<u>Fritillaria agrestis</u>	stinkbells	Liliaceae	perennial bulbiferous herb	4.2	S3.2	G3
<u>Gratiola heterosepala</u>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2
<u>Juncus leiospermus var. ahartii</u>	Ahart's dwarf rush	Juncaceae	annual herb	1B.2	S1	G2T1
<u>Juncus leiospermus var. leiospermus</u>	Red Bluff dwarf rush	Juncaceae	annual herb	1B.1	S2	G2T2
<u>Legenere limosa</u>	legenere	Campanulaceae	annual herb	1B.1	S2	G2
<u>Navarretia myersii ssp. myersii</u>	pincushion navarretia	Polemoniaceae	annual herb	1B.1	S1	G1T1
<u>Navarretia nigelliformis ssp. nigelliformis</u>	adobe navarretia	Polemoniaceae	annual herb	4.2	S3.2	G4T3
<u>Orcuttia viscida</u>	Sacramento Orcutt grass	Poaceae	annual herb	1B.1	S1	G1
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	1B.2	S3	G3

Suggested Citation

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Appendix B — Plants Observed within the Hughes Park Trail Project

Appendix B

Plants Observed within the Hughes Park Trail Project

Family	Scientific Name	Common Name	*
Anacardiaceae	<i>Toxicodendron diversilobum</i>	Poison oak	N
Asteraceae	<i>Baccharis pilularis</i>	Coyote brush	N
Asteraceae	<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	I
Asteraceae	<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	I
Asteraceae	<i>Helminthotheca echioides</i>	Bristly ox-tongue	I
Asteraceae	<i>Holocarpha virgata</i>	Tarweed, tarplant	N
Asteraceae	<i>Holocarpha virgata</i>	Tarweed, tarplant	N
Asteraceae	<i>Lactuca serriola</i>	Prickly lettuce	I
Asteraceae	<i>Lactuca serriola</i>	Prickly lettuce	I
Asteraceae	<i>Senecio vulgaris</i>	Common groundsel	I
Asteraceae	<i>Sonchus oleraceus</i>	Common sow thistle	I
Asteraceae	<i>Xanthium</i> sp.	Cocklebur	--
Boraginaceae	<i>Amsinckia eastwoodiae</i>	Eastwood's fiddleneck	N
Brassicaceae	<i>Lepidium nitidum</i>	Peppergrass, peppergrass	N
Cyperaceae	<i>Carex</i> sp.	Sedge	--
Cyperaceae	<i>Cyperus eragrostis</i>	Nutsedge	N
Cyperaceae	<i>Eleocharis macrostachya</i>	Spikerush	N
Euphorbiaceae	<i>Croton setigerus</i>	Turkey-mullein	N
Fabaceae	<i>Acmispon americanus</i> var. <i>americanus</i>	Deervetch, deerweed	N
Fabaceae	<i>Vicia villosa</i>	Hairy vetch, winter vetch	I
Fagaceae	<i>Quercus lobata</i>	Valley oak, roble	N
Fagaceae	<i>Quercus wislizeni</i>	Interior live oak	N
Geraniaceae	<i>Erodium botrys</i>	Storksbill, filaree	I
Geraniaceae	<i>Geranium dissectum</i>	Cranesbill, geranium	I
Juncaceae	<i>Juncus effusus</i>	Soft or lamp rush	N
Onagraceae	<i>Epilobium</i> sp.	Willowherb	--
Poaceae	<i>Avena fatua</i>	Wild oat	I
Poaceae	<i>Bromus diandrus</i>	Ripgut grass	I
Poaceae	<i>Bromus hordeaceus</i>	Soft chess	I
Poaceae	<i>Cynosurus echinatus</i>	Bristly dogtail grass	I
Poaceae	<i>Cynosurus</i> sp.	Dogtail grass	I
Poaceae	<i>Deschampsia danthonioides</i>	Annual hair grass	N
Poaceae	<i>Elymus caput-medusae</i>	Medusa head	I
Poaceae	<i>Festuca myuros</i>	Rattail sixweeks grass	I
Poaceae	<i>Festuca perennis</i>	Rye grass	I
Poaceae	<i>Phalaris</i> sp.	Canary grass	--
Poaceae	<i>Polypogon monspeliensis</i>	Annual beard grass, rabbitfoot grass	I
Polygonaceae	<i>Rumex crispus</i>	Curly dock	I
Zygophyllaceae	<i>Tribulus terrestris</i>	Puncture vine, caltrop	I
* N=Native, I=Invasive			

Appendix D — William “Bill” Hughes Park Phase 2 C Bent Tree Bridge Preliminary Hydrology and Hydraulic Design Report

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**William “Bill” Hughes Park Phase 2C
Bent Tree Bridge
Preliminary Hydrology and Hydraulic Design
Report**

Date: June 20, 2014

Prepared for:

George Warren
Warren Consulting Engineers, Inc.
1117 Windfield Way, Suite 110
El Dorado Hills, CA 95762

Prepared by:



PLANNING ■ DESIGN ■ CONSTRUCTION

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The William "Bill" Hughes Park Phase 2C Bent Tree Bridge Preliminary Hydrology and Hydraulic Design Report is based on 60% Construction Plans received from Warren Consulting Engineers Inc. and was prepared by:

Draft

Jeffery S. Crump, P.E.
RBF Consulting, Associate

William “Bill” Hughes Park Phase 2C Bent Tree Bridge Preliminary Hydrology and Hydraulic Design Report

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Figures

FIGURE 1: Vicinity Map

FIGURE 2: Parcel Impact

FIGURE 3: Proposed Mitigation Area

APPENDIX A

Figure A-1: HEC-RAS Model Layout
Existing HEC-RAS Cross Section
Proposed Bridge HEC-RAS Cross Section
Proposed Mitigation Cross Section

APPENDIX B

Proposed Bridge Plan
Proposed Bridge Cross Section Sketch

1.0 INTRODUCTION

1.1 Background

William “Bill” Hughes Park is a City of Roseville park located in between Parkside Way and Woodcreek Oaks Boulevard in the City of Roseville. Pleasant Grove Creek flows through the park.

A pedestrian and bicycle bridge is proposed to connect Bent Tree Drive with the existing Pleasant Grove Creek Trail within Hughes Park. The proposed bridge location is about 900 feet upstream from the Parkside Way Bridge.

Figure 1 is a vicinity map of the project location.

All elevations in this report are referenced to the National Geodetic Vertical Datum of 1929 (NGVD29).

1.2 Purpose

1.2.1 Project Objective

The primary objective of the Project is to build a new pedestrian bridge over Pleasant Grove Creek and a paved trail that will connect the existing Pleasant Grove Creek Trail with Bent Tree Drive.

1.2.2 Report Purpose

The purpose of this report is to document the methodology used to evaluate the flood impacts of the bridge replacement, explain measures identified to mitigate for these impacts, and includes conclusions about the hydraulic impacts of the proposed project.

2.0 BASELINE HYDROLOGY

Hydrology for the 10-year, 50-year, 100-year, and 200-year storm events was completed using methodology consistent with Placer County Storm Water Management Manual (SWMM) and the June 2010 Pleasant Grove Creek Watershed Updated Hydrology and Hydraulic Analysis (Pleasant Grove Creek Watershed Update) by RBF Consulting. The models used for this analysis are included in the DVD that accompanies this report. A readme.txt file in the DVD directory explains the content of the disk. The 2010 study analyzed storm centerings over each of the 92 Pleasant Grove Creek watersheds at each of the 4 storm angles for a total of 368 possible storm centerings for the 10-year, 50-year, 100-year, and 200-year storm events to identify the peak flow rate for any given location. Both existing conditions and general plan build-out land use conditions were evaluated to determine flow rates for the 4 recurrence intervals listed in Table 1. The drainage area of the tributary watershed at the proposed Hughes Park Bridge is approximately 15 square miles.

Section 4 of the Pleasant Grove Creek Watershed Update includes the methodology used to prepare the hydrology model. Specifically, the report addresses the methodology used for watershed delineation, identification and assignation of impervious areas to each watershed, routing parameters, and historical rain gage records, and the calibration process. The map of the Pleasant Grove Creek Watershed is shown in Exhibit 3 of the Pleasant Grove Creek Watershed Update, while the existing conditions land use and ultimate build-out land use are shown in Exhibit 4 and Exhibit 5, respectively, of the Pleasant Grove Creek Watershed Update.

Civil Engineering Solutions, Inc. and RBF completed the Placer County Flood Frequency Analysis (Placer County FFA) in 2011 to determine the appropriateness of the SWMM methodology as applied in the Pleasant Grove Creek Watershed Update and the 2011 Update to the Dry Creek Watershed Flood Control Plan in computing design flood events. The Placer County FFA evaluated records of 16 gages in Western Placer County including the Pleasant Grove Creek and Dry Creek watersheds following the procedures from the USGS *Bulletin #17B Guidelines for Determining Flood Flow Frequency*. The Placer County FFA concluded the following:

*(From Section 3-I of the Placer County FFA) The results of the analysis were reviewed with representatives from the [Placer County Flood Control and Water Conservation] District, FEMA, USGS, Placer County and City of Roseville. Specifically, weighted skew gage statistics based on gage records transformed to pre-development flow conditions were compared to the results of hydrologic models of pre-development conditions based on District methodology. The results of this comparison found that District methodology provides statistically appropriate discharges for 25 year and larger recurrence interval events. Though District methodology may underestimate more frequent discharge rates, the lower rates do not have regulatory significance. Therefore, it was decided that the **current District methodology as applied in the Dry Creek and Pleasant Grove watershed models is appropriate to compute regulatory flood discharges.***

The Placer County FFA is included on the accompanying DVD. The discharges used in this study and the CTP are slightly different than those in the Pleasant Grove Creek Watershed Update due to correction of an error in Placer County computer program (PDP) used to compute rainfall distributions that was discovered during the FFA for the CTP.

This hydrology for existing conditions also is being used by RBF to compute flood profiles for the update to the Flood Insurance Rate Maps (FIRMs) currently in progress Placer County Cooperating Technical Partnership (CTP) with FEMA. The flow rates at proposed Hughes Park Bridge for existing and build-out hydrologic conditions are shown in Table 1.

(Note: this discharge corresponds to the YPL5G node in the hydrology model).

Table 1. Existing conditions and build-out conditions flow rates at the proposed Hughes Park bridge location

Recurrence Interval	Existing Development Conditions Discharge (ft³/s)	Build-out Development Conditions Discharge (ft³/s)
10-year	1563	2446
50-year	2475	2871
100-year	2878	3251
200-year	3279	3608

3.0 HYDRAULIC ANALYSES

A steady-state HEC-RAS hydraulic model was prepared by Nolte in 2004 for a Preliminary Flood Insurance Study (FIS). RBF updated the Nolte HEC-RAS models in 2013 for the Placer County CTP. The HEC-RAS cross sections were geo-referenced based on a cross section location map prepared by Nolte. Ineffective flow areas were redefined throughout the model based on bridges, agricultural berms, and other topographical features as part of the CTP work. The contours used in the Preliminary FIS were used to adjust the locations and extents of ineffective flow areas. Steady flow rates for the four profiles (10-, 50-, 100-, and 200-year events) were adjusted per updated hydrology from the Pleasant Grove Creek Watershed Update with minor adjustments made based on the most current PDP software.

Ground survey was collected in 2014 in the vicinity of the Hughes Park Bridge by Warren Consulting Engineers. The survey was consistent with the cross sections that were used in the HEC-RAS model. Small modifications to the cross section geometry were incorporated into the model to make it consistent with the recent survey.

The cross section layout used to perform this study (Figure A-1) and the HEC-RAS cross sections at the location of the proposed bridge are included in Appendix A. The reach was split with a lateral weir for potential mitigation evaluation so the overall cross section is represented by two cross sections in HEC-RAS. Existing conditions water surface elevations just upstream from the proposed bridge are shown in Table 2.

Table 2. Existing Conditions Hydraulics just upstream from the location of proposed Hughes Park Bridge (Cross Section 11.572)

Recurrence Interval	Water Surface Elevation	Average Velocity (feet per second)
10-year	95.64	0.8
50-year	97.04	0.9
100-year	97.59	1.0
200-year	98.11	1.0

The Parkside Way bridge, located about 900 feet downstream from the proposed bridge location, restricts flow, causing low velocities through Hughes Park.

3.1 Proposed Conditions Evaluation

The proposed Hughes Park Bridge was modeled based on 60% design drawings and a concept bridge cross section. Relevant plans and a sketch profile of the bridge are included in Appendix B. The deck was modeled as 2 feet thick with a low chord elevation of 88.5 feet on the left (west) bank sloping to 90.5 feet on the right (east) bank. The top of deck was modeled as 90.5 feet on the left (west) bank with the deck sloping up to 92.5 feet on the right (east) bank. The span of the bridge across Pleasant Grove Creek is 60 feet. The width of the bridge is 10 feet. The top of deck is below the existing 10-year water surface elevation. The proposed bike path will be built at grade.

The railing of the bridge will block about half of the effective flow area. This was modeled as a 2-foot high railing and obstructs an area equivalent to two feet high and half of the bridge span.

The resulting water surface elevations just upstream from the bridge for both existing conditions flows and build-out flows for the existing and proposed configurations for the 10-year, 50-year, 100-year, and 200-year events are shown in Table 3.

Table 3. Water Surface Elevations 20-feet upstream from the Proposed Bridge (11.589)

Recurrence Interval	<i>Existing Conditions Hydrology</i>		<i>Build-out Hydrology</i>	
	Existing conditions	Proposed condition	Existing conditions	Existing conditions
10-year	95.65	95.66	96.16	96.17
50-year	97.06	97.06	97.54	97.55
100-year	97.60	97.61	98.06	98.07
200-year	98.12	98.13	98.53	98.54

The proposed bridge causes an increase of 0.01 feet in the 100-year water surface elevation. This impact extends about 1700 feet upstream. The upstream limit of impact is shown in Figure 2. The floodplain extent shown in Figure 2 is based on the preliminary results from the 2013 Placer County CTP.

Potential Mitigation

It was determined that mitigation at or downstream from the proposed bridge site would not be effective at compensating for the impacts of the proposed bridge due to the very low velocities caused by the backwater from the Parkside Way bridge. The proposed mitigation strategy is to limit upstream impacts to parcels owned by the City of Roseville. Potential mitigation by regrading an area adjacent to the creek upstream from the proposed bridge location is proposed and shown in Figure 3. The mitigation area will be regraded to slope at 0.8% towards the creek for about 50 feet, and then remain about 6-inches below existing grade for an area about 60 feet wide (parallel to the creek) and 180 feet

long (perpendicular to the creek). A cross section of the proposed mitigation is included in Appendix A and a photograph of the area is shown in Photo 1.

The proposed mitigation limits the impact to about 650 feet upstream from the proposed Hughes Park bridge and avoids impact to private properties. Although the impacts are limited due to the proposed mitigation, the project will require a Conditional Letter of Map Revision (CLOMR) to be approved by FEMA because of the impact due to fill in a FEMA regulatory floodway that exceeds 0.00 feet. The 100-year water surface elevations at various cross sections upstream from the proposed bridge for existing conditions, unmitigated proposed conditions and mitigated proposed conditions are shown in Table 4.

Photo 1. Potential mitigation area



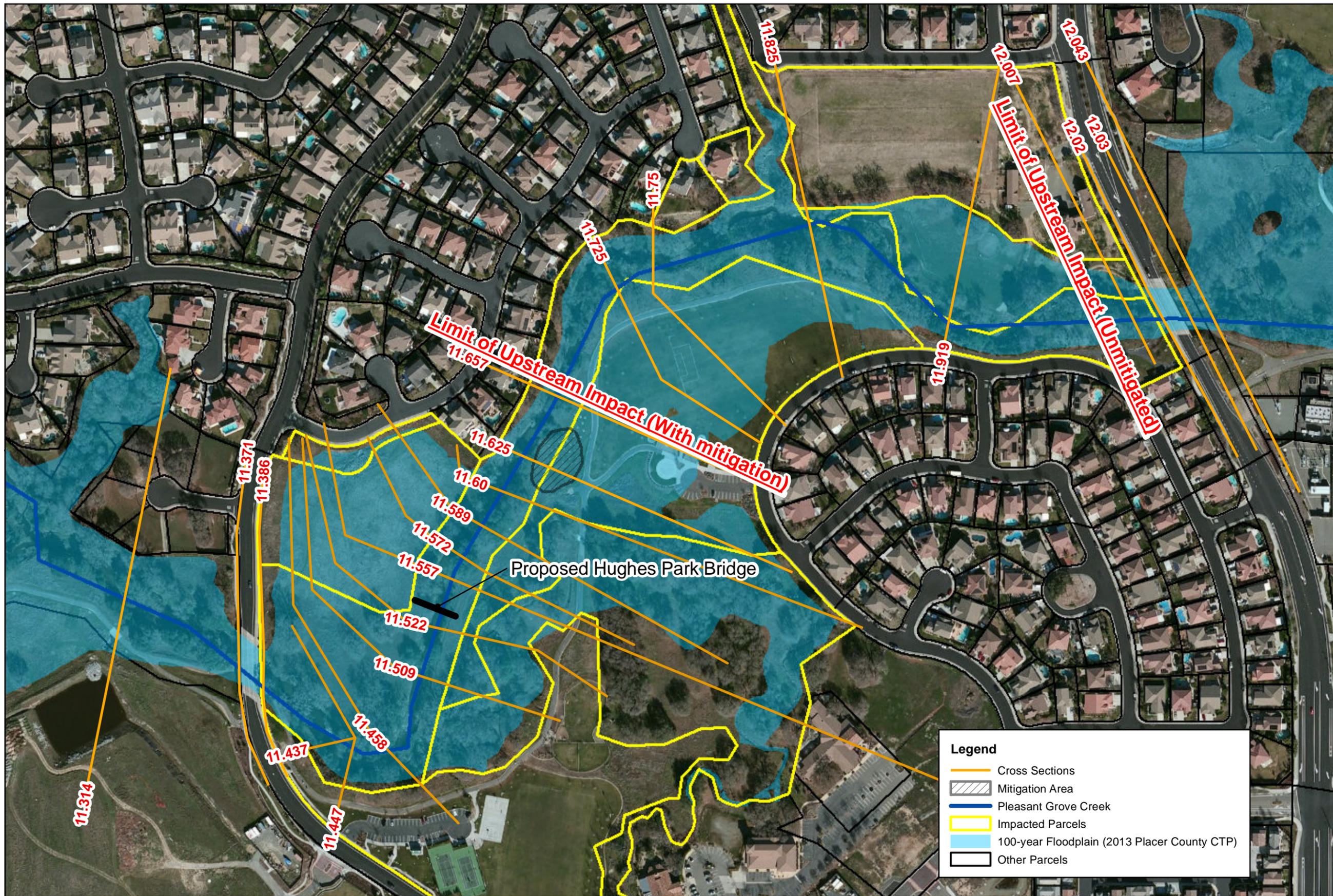
Table 4. 100-year water surface elevations (existing conditions hydrology)

Cross Section	Stream Distance from Bridge (feet)	Existing Bridge	Proposed Bridge (Unmitigated)	Proposed Bridge (Mitigated)
11.572	20	97.59	97.59	97.59
11.589	117	97.60	97.61	97.61
11.60	226	97.62	97.63	97.63
11.625	313	97.62	97.63	97.63
11.657	490	97.84	97.85	97.83
11.725	587	98.33	98.34	98.32
11.75	669	98.44	98.44	98.43
11.825	881	98.79	98.79	98.79
11.919	1142	99.41	99.41	99.41
12.007	1635	99.94	99.95	99.94
12.02	1729	100.02	100.02	100.01

4.0 CONCLUSIONS

The proposed Hughes Park Bridge Project will have minimal hydraulic impact on upstream water surface elevations, but will cause an increase of 0.01 feet in the 100-year water surface elevation upstream from the proposed bridge.

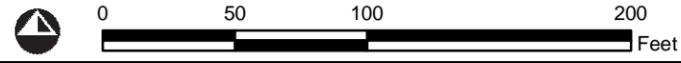
Due to low flow velocities near the area of the bridge, reasonable mitigation cannot completely eliminate the impact just upstream from the bridge. A mitigation strategy is proposed to be implemented that will avoid impacts to privately-held parcels and limit the upstream impacts to parcels owned by the City of Roseville.





Legend

- Cross Sections
- ▨ Mitigation Area
- Impacted Parcels
- 100-year Floodplain (2013 Placer County CTP)
- ▭ Other Parcels



PROPOSED HUGHES PARK BRIDGE
Mitigation Area

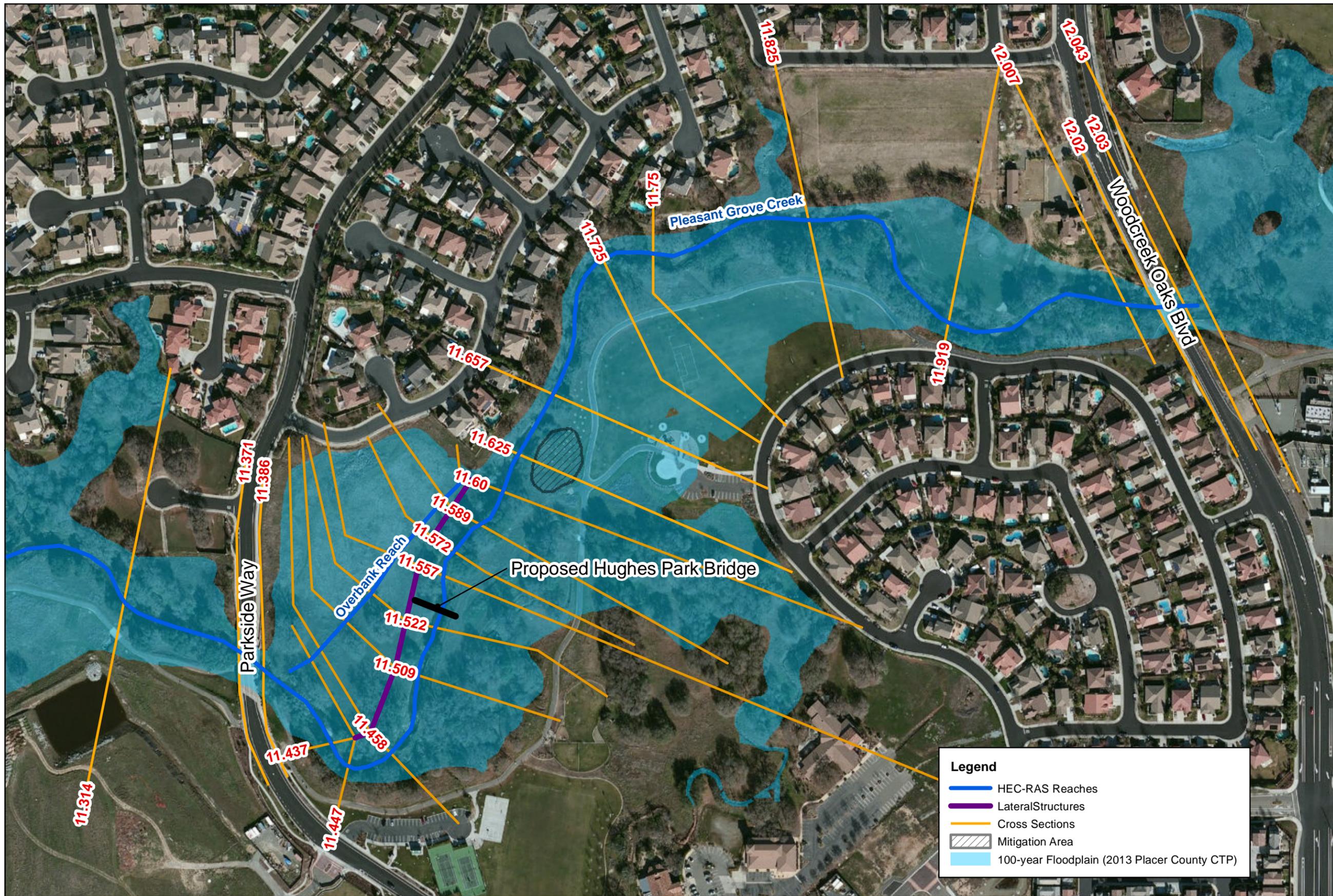
Figure 3

Appendix A

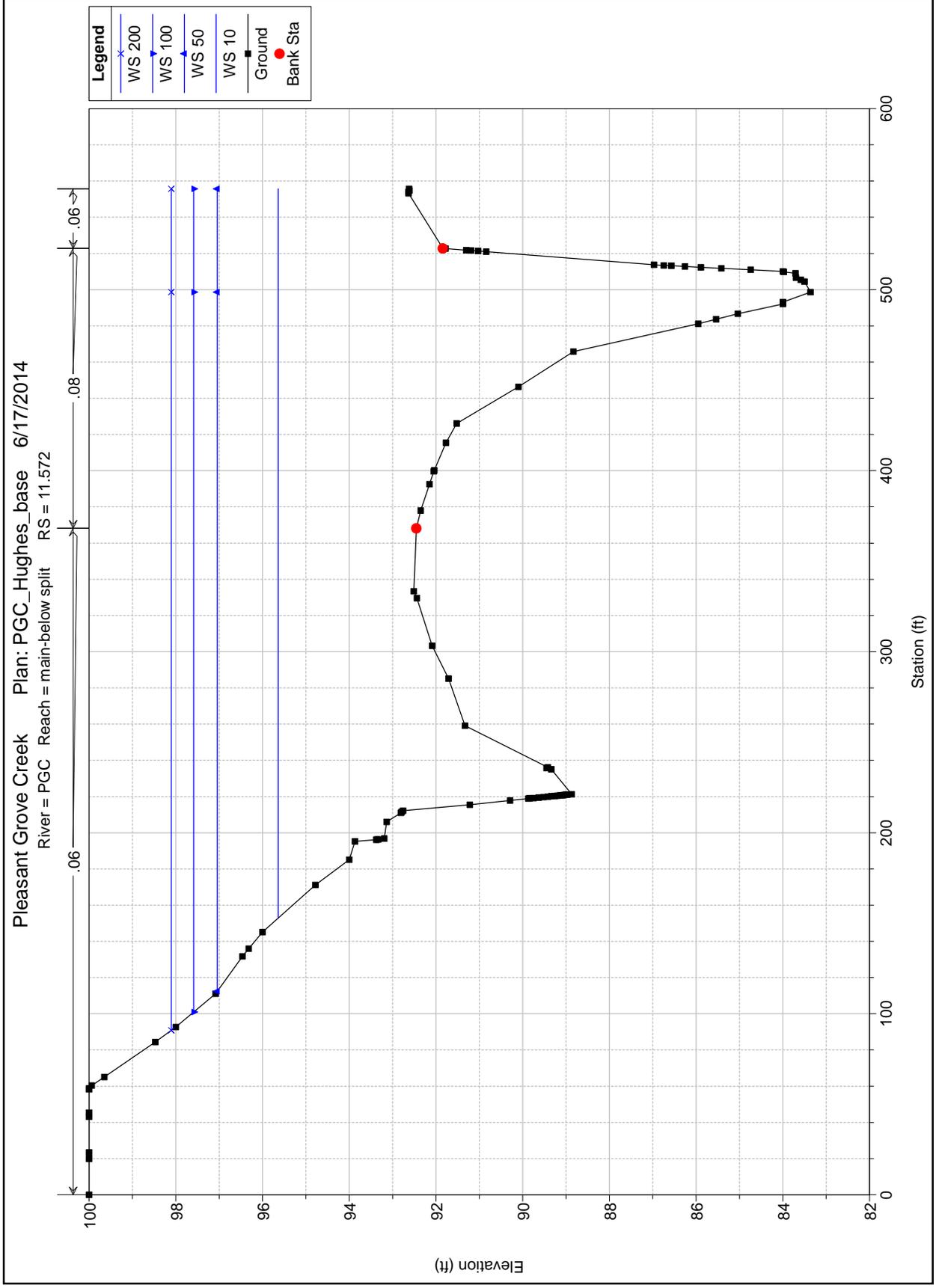
Existing HEC-RAS Cross Section

Proposed Hughes Park Bridge HEC-RAS Cross Section

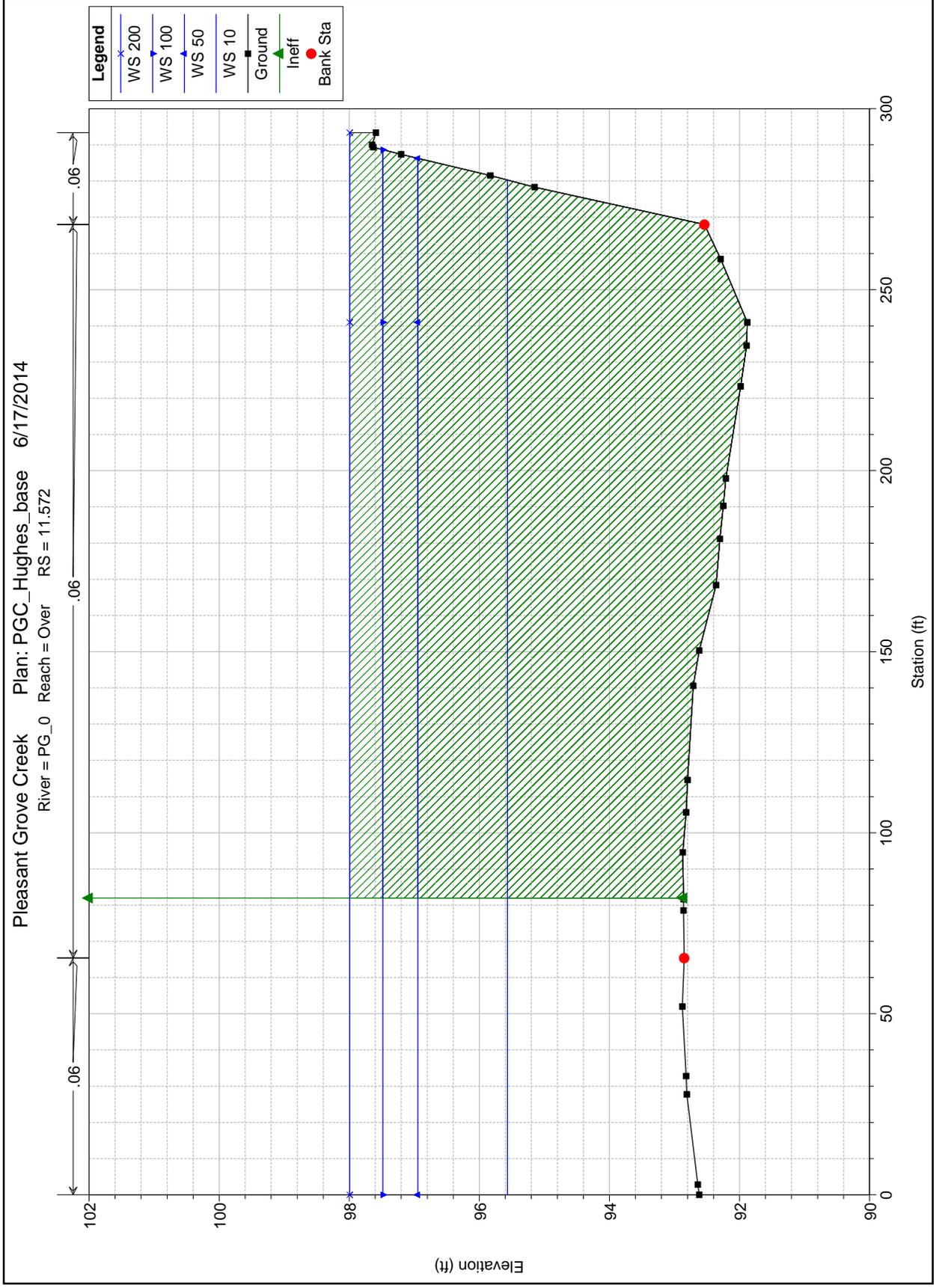
Proposed Mitigation Cross Section



Existing Cross Section near Proposed Bridge Location (Part 1 of 2)



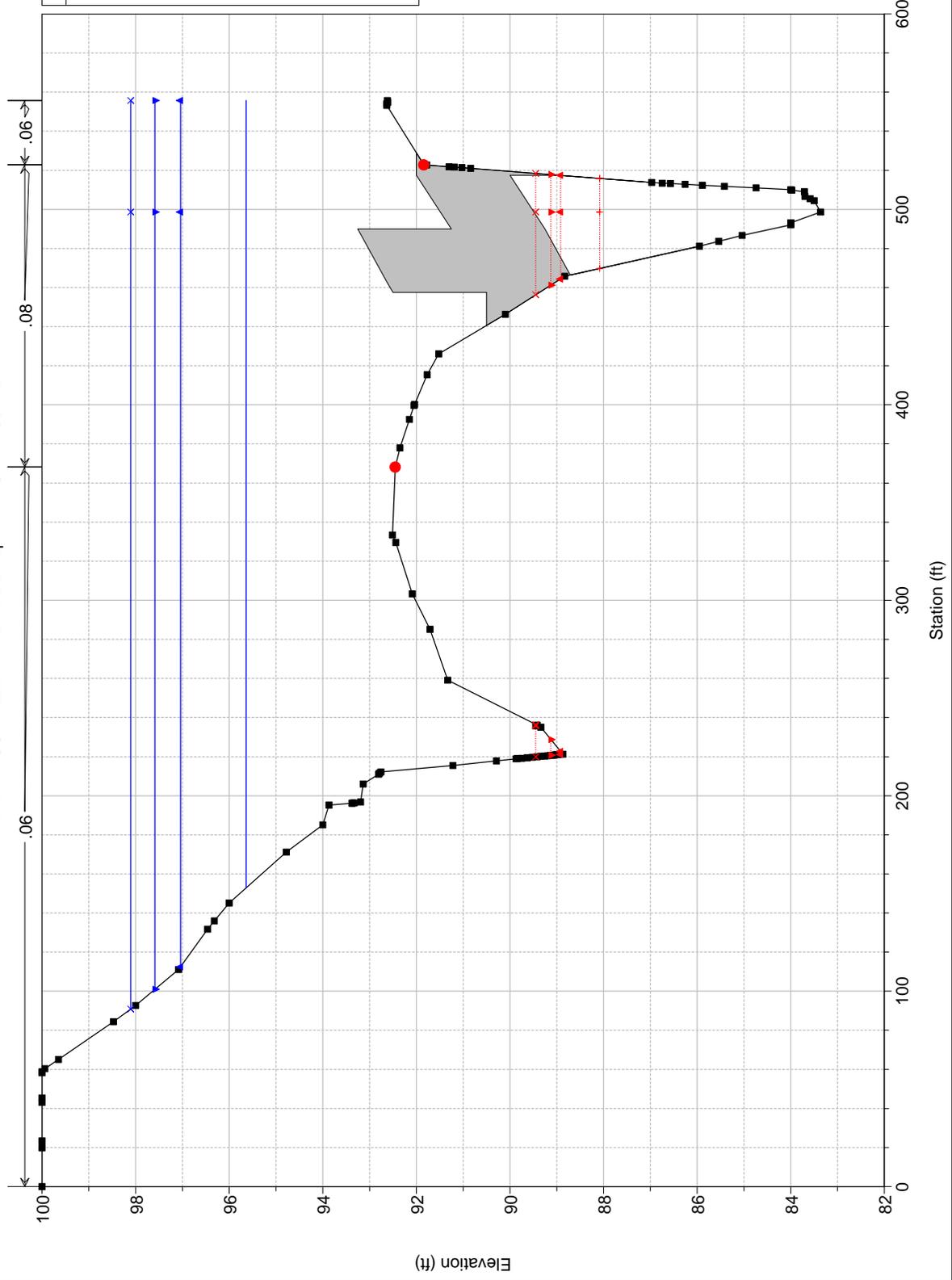
Existing Cross Section near Proposed Bridge Location (Part 2 of 2)



Proposed Bridge

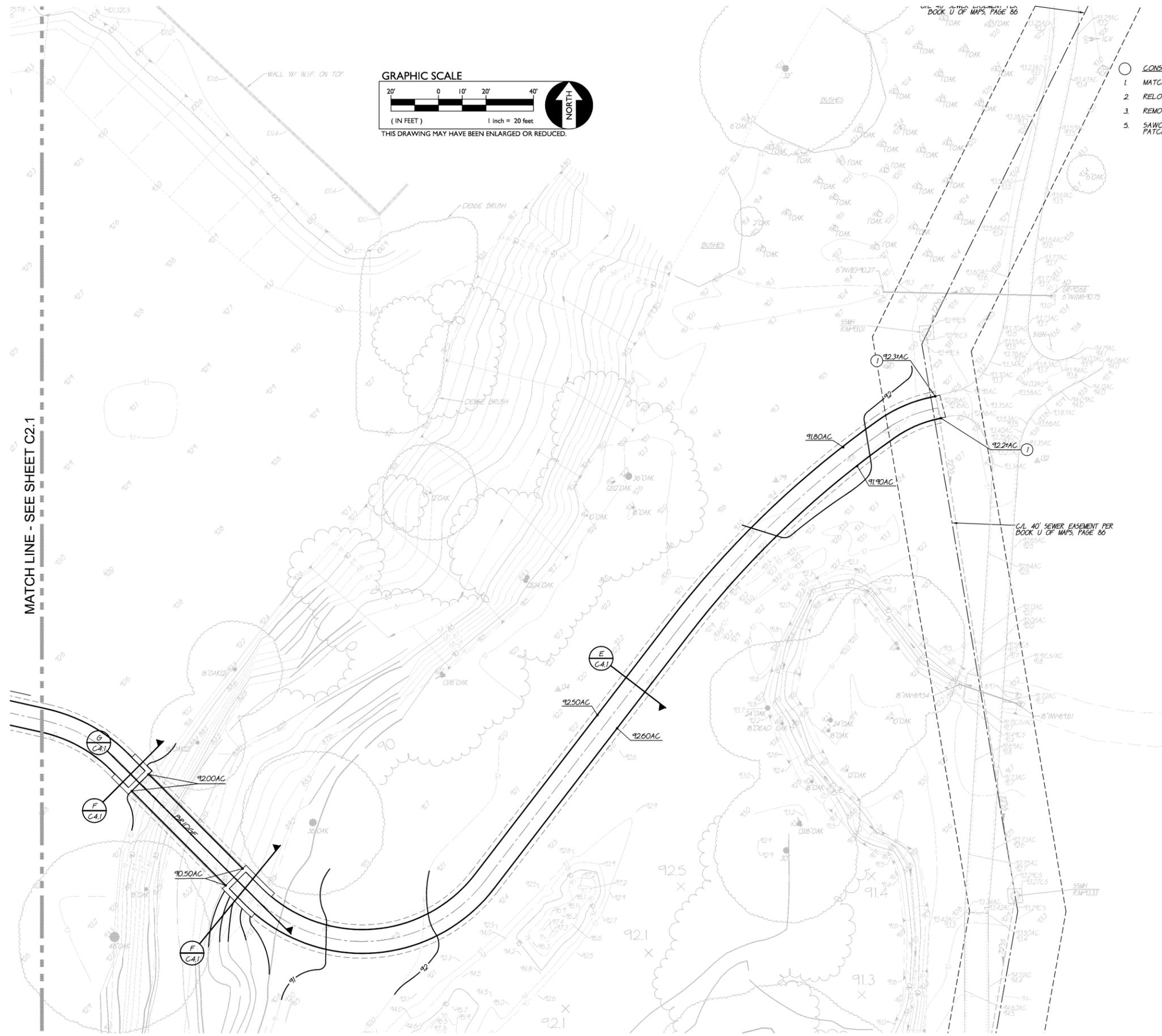
Pleasant Grove Creek Plan: PGC_WithBridge_201406 6/17/2014

River = PGC Reach = main-below split RS = 11.56 BR



Appendix B

Plan and Sketch Cross Section for Hughes Park Bridge



- CONSTRUCTION NOTES**
1. MATCH EXISTING GRADE/ELEVATION.
 2. RELOCATE EXISTING SIGNS AND POSTS.
 3. REMOVE WOOD POST.
 5. SAWCUT AND REMOVE EXISTING AC PAVING. PATCH BACK TO MATCH EXISTING.



WCE

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EL DORADO HILLS, CA
95762
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FAX (916) 985-1877

William "Bill" Hughes Park
Phase 2C
Bent Tree Bridge

City of Roseville

1600 Parkside Way
Roseville, CA

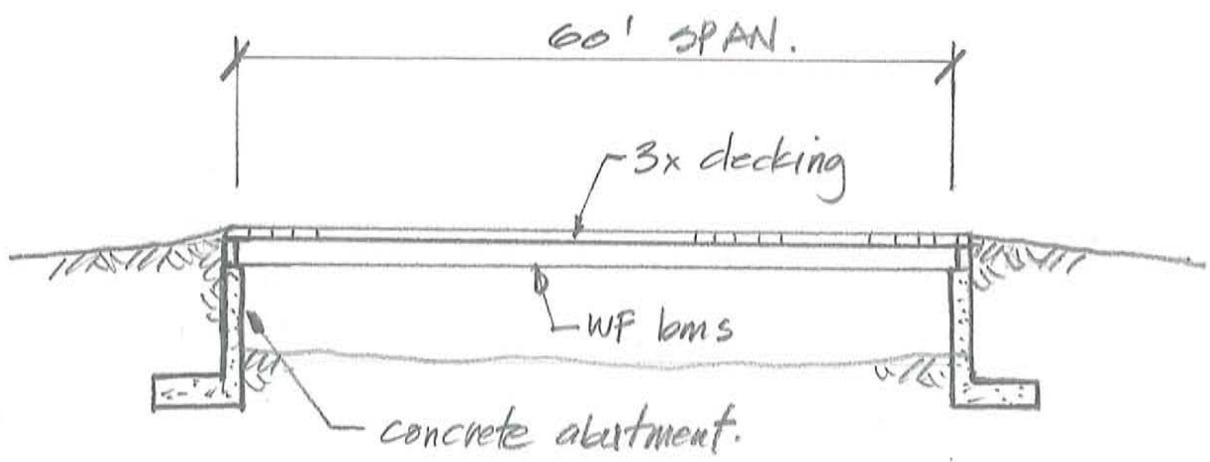
KEYPLAN

REVISIONS

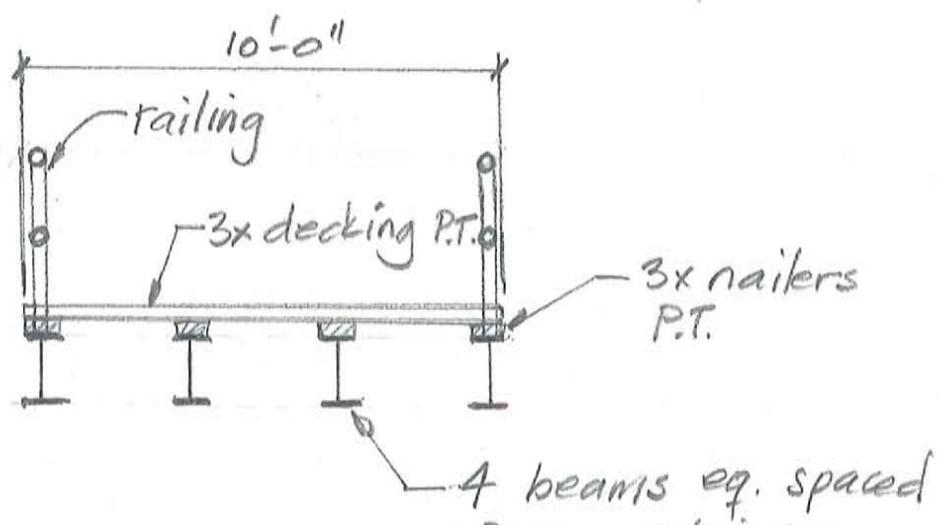
JOB NO.	28611
DRAWN	
DATE	05/09/2014
SCALE	AS NOTED
FILENAME	

GRADING PLAN

C2.2



Elevation - 1/16" = 1'-0"



- Beam options:
- W21x73
 - W18x86
 - W16x100

Section

