RESOLUTION NO. 2016-069

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE ADOPTING A MITIGATED NEGATIVE DECLARATION AND MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE LOWER LAGUNA CREEK OPEN SPACE TRAIL PROJECT (WTL022) AND APPROVING THE PROJECT

WHEREAS, the Lower Laguna Creek Open Space Trail Project (WTL022) (Project) will result in the development of a 1.15-mile Class I multi-use bikeway and educational area within the City of Elk Grove and City of Sacramento, California; and

WHEREAS, the City prepared an Initial Study/Mitigated Negative Declaration pursuant to CEQA, attached hereto as Exhibit A and incorporated herein by reference, evaluating the potential environmental effects of the Project; and

WHEREAS, the City determined that the mitigation measures identified in the Initial Study/Mitigated Negative Declaration would reduce environmental impacts to a less than significant level; and

WHEREAS, based on staff's review of the Project, no special circumstances exist that would create a reasonable possibility that this Project will have a significant effect on the environment beyond what was analyzed in the Mitigated Negative Declaration prepared for the Project and disclosed; and

WHEREAS, a Mitigation and Monitoring Reporting Program (MMRP) has been prepared for the preferred alternative in accordance with CEQA, attached hereto as Exhibit B and incorporated herein by reference, which is designed to ensure compliance with the identified mitigation measures during project implementation and operation; and

WHEREAS, the City distributed the Notice of Intent to Adopt the Mitigated Negative Declaration on March 4, 2016. It was posted at the Sacramento County Clerk's office, distributed through State Clearinghouse and at the City offices, pursuant to Section 15072 of Chapter 3 of Title 14 of the California Code of Regulations (State CEQA Guidelines). A 30-day review and comment period was opened on March 4, 2016 and closed on April 4, 2016. The Mitigated Negative Declaration was made available to the public during this review period; and

WHEREAS, the City received written comment letters within the 30-day public review period and responded to those comments in the project staff report; and

WHEREAS, the City has considered the comments received during the public review period, and they do not alter the conclusions in the Initial Study and Mitigated Negative Declaration; and

WHEREAS, the City Council has considered the written and oral comments on the proposed project and the Mitigated Negative Declaration; and

WHEREAS, the City of Elk Grove, Development Services, Planning Department, located 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based; and

WHEREAS, the City Council has reviewed the Initial Study, the Mitigated Negative Declaration, and the Mitigation Monitoring and Reporting Program and find that these documents reflect their independent judgment.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby adopts the Mitigated Negative Declaration and the Mitigation and Monitoring Reporting Program for the preferred alternative for the Lower Laguna Creek Open Space Trail Project attached hereto and incorporated herein by this reference based on the following findings:

1) On the basis of the whole record, there is no substantial evidence that the Project as designed and mitigated will have a significant effect on the environment. A Mitigated Negative Declaration has been prepared and completed in accordance with the California Environmental Quality Act (CEQA). The Mitigated Negative Declaration reflects the independent judgment and analysis of the City.

2) Pursuant to Public Resources Code, Section 21081 and CEQA Guidelines, Section 15091, all of the proposed mitigation measures described in the Mitigated Negative Declaration are feasible, and therefore shall become binding upon the City.

3) To the extent that these findings conclude that various proposed mitigation measures outlined in the Mitigated Negative Declaration are feasible and have not been modified, superseded or withdrawn, the City Council hereby binds itself and their assigns and successors in interest to implement those measures. These findings are not merely informational, but constitute a binding set of obligations that will come into effect when the City constructs the Project.

Evidence: Pursuant to CEQA and the CEQA guidelines, staff prepared an Initial Environmental Study for the Lower Laguna Creek Open Space Trail Project and mitigation measures have been developed that will reduce potential environmental impacts to less than significant levels. The Initial Environmental Study identified potentially significant adverse effects in the areas of aesthetics, air quality, biological resources, cultural resources and recreation, mitigation measures that avoid or mitigate the potentially significant effects to a point where no significant effects would occur were identified in the Initial Study and staff prepared a Mitigated Negative Declaration. Preparation of a Mitigation and Monitoring Reporting Program (MMRP) is required in accordance with the City of Elk Grove regulations and is designed to ensure compliance during project implementation. The City distributed the Notice of Intent to Adopt the Mitigated Negative Declaration on March 4, 2016. It was posted at the Sacramento County Clerk's office, distributed through State Clearinghouse and at the City offices, pursuant to Section 15072 of Chapter 3 of Title 14 of the California Code of Regulations

(State CEQA Guidelines). A 30-day review and comment period was opened on March 4, 2016 and closed on April 4, 2016. The Mitigated Negative Declaration was made available to the public during this review period. The City received written comment letters within the 30-day public review period. These comments do not alter the conclusions of the Initial Study/Mitigated Negative Declaration.

On the basis of the Mitigated Negative Declaration, environmental analysis, and the whole record, there is no substantial evidence that the project will have a significant adverse impact on the environment above those addressed within the adopted Mitigated Negative Declaration. A Mitigation and Monitoring Reporting Program (MMRP), which is incorporated herein by this reference, has been prepared to ensure compliance during project implementation. The City of Elk Grove, Development Services Planning Department, located at 8401 Laguna Palms Way, Elk Grove, California 95758 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based.

BE IT FURTHER RESOLVED that the City Council hereby approves the Project.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 27th day of April 2016.

GARY DAVIS, MAYOR of the
CITY OF ELK GROVE

ATTEST:

JASON LINDGREN, CITY CLERK

APPROVED AS TO FORM:

JONATHAN P. HOBBS,
CITY ATTORNEY

EXHIBIT A

Lower Laguna Creek Open Space Trail Project

Initial Study / Mitigated Negative Declaration

Prepared for:

City of Elk Grove

March 4, 2016

Revised April 18, 2016

Prepared by:

FOOTHILL ASSOCIATES

NOTICE OF INTENT

TO ADOPT A MITIGATED NEGATIVE DECLARATION

for the
Lower Laguna Creek Open Space Trail Project

Public Notice is hereby given that a Mitigated Negative Declaration (Environmental Report) is available for public review for the Lower Laguna Creek Open Space Trail Project (Project).

Project Location: The Project site is located approximately 0.5 mile east of Franklin Boulevard, and approximately two miles west of California State Route 99, within portions of Sections 21 and 28, Township 7 North, Range 5 East on the USGS *Florin, California* 7.5-minute quadrangle (38° 26' 17.783" North, 121° 26' 4.170" West). Proposed improvements within the City of Elk Grove would traverse through an existing area of open space as well as the Laguna Springs Unit 2 Open Space Preserve. Proposed improvements within the City of Sacramento would extend through the North Laguna Creek Wildlife Area.

Project Description: Implementation of the Proposed Project would result in the development of a 1.15-mile Class I multi-use bikeway and educational area within the City of Elk Grove and City of Sacramento, California. The Proposed Project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers. Additional Project amenities would include landscape improvements, trail nodes and signage, approximately eight culverts, a signalized pedestrian crossing at Big Horn Boulevard, and an educational area with a new parking lot. The educational area would provide opportunities for school field trips and other educational activities and educational events with an outdoor amphitheater and stage, and several small gathering areas.

Document Review and Availability: The public review and comment period will extend for 30 calendar days in accordance with CEQA Guidelines Section 15105(b) starting March 4, 2016 and ending April 4, 2016. The Initial Study/Mitigated Negative Declaration (IS/MND) is available for public review at the following location:

City of Elk Grove
Public Works Department
8401 Laguna Palms Way
Elk Grove, CA 95758
(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 Elk Grove Environmental Review webpage via the following web address:
http://www.elkgrovecity.org/city_hall/departments_divisions/planning/environmental_review/

Comments/Questions: Comments and/or questions regarding the IS/MND may be directed to: Jonathan Mitchell, P.E., Senior Project Manager, City of Elk Grove, Public Works Development, 8401 Laguna Palms Way, Elk Grove, California 95758, Phone: (916) 478-2234, Fax: (916) 691-3173, Email: JMitchell@elkgrovecity.org.

Public Meetings: The IS/MND is tentatively scheduled for consideration and possible adoption by the City of Elk Grove City Council on April 27, 2016. City Council meetings start at 6:00 P.M. in the City of Elk Grove City Hall, Council Chambers, 8401 Laguna Palms Way, Elk Grove, California, 95757. Interested parties should call the City Clerk's Office at (916) 478-3635 to confirm meeting agendas, times, and dates.

TABLE OF CONTENTS

List of Tables

List of Figures

List of Appendices

1.0 MITIGATED NEGATIVE DECLARATION INFORMATION SHEET

Project Title: Lower Laguna Creek Open Space Trail Project (Project)

Project Location: City of Elk Grove, California

Date of Completion: March 4, 2016

Project Applicant: City of Elk Grove

Lead Agency: City of Elk Grove

Project Description: Implementation of the Proposed Project would result in the development of a 1.15-mile Class I multi-use bikeway and educational area within the City of Elk Grove and City of Sacramento, California. Proposed improvements within the City of Elk Grove would traverse through an existing area of open space as well as the Laguna Springs Unit 2 Open Space Preserve. Proposed improvements within the City of Sacramento would extend through the North Laguna Creek Wildlife Area.

The Proposed Project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers. As described in detail within **Section 3.4**, additional Project amenities would include landscape improvements, trail nodes and signage, approximately eight culverts, a signalized pedestrian crossing at Big Horn Boulevard, and an educational area with a new parking lot. The educational area would provide opportunities for school field trips and other educational activities and educational events with an outdoor amphitheater and stage, and several small gathering areas.

Declaration:

The City of Elk Grove (City) has determined that implementation of the Proposed Project will not result in significant effects on the environment and therefore this Project does not require evaluation through the preparation of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA). This determination is based on the attached Initial Study in support of the following findings, as documented within Section 4.18 and Section 5.0 of this Initial Study:

- 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;

- The Project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals;

- The Project will not have impacts that are individually limited, but cumulatively considerable;

- The Project will not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly; and

- No substantial evidence exists that the Project will have a negative or adverse effect on the environment.

The Project incorporates all applicable mitigation measures identified in the attached Initial Study.

Written comments shall be submitted no later than 30 days from the posting date. The City's determination on the draft MND shall be final.

Submit comments in writing to:

Jonathan Mitchell, P.E.
Senior Project Manager
City of Elk Grove
Public Works Department
8401 Laguna Palms Way
Elk Grove, CA 95758
Phone: (916) 478-2234
Fax: (916) 691-3173
Email: JMitchell@elkgrovecity.org

2.0 INTRODUCTION

2.1. Introduction and Regulatory Guidance

This document is an Initial Study (IS) supporting a Mitigated Negative Declaration (MND) determination for the Lower Laguna Creek Open Space Trail Project (Proposed Project). This MND evaluates the potential impacts resulting from implementation of the Proposed Project. This MND has been prepared in accordance with CEQA, Public Resources Code Section 21000 *et seq.*, and the State CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15000 *et seq.*

An Initial Study is prepared by a Lead Agency to determine if a project has the potential to result in significant impacts on the environment (CEQA Guidelines Section 15063). An EIR must be prepared if an IS indicates that the Proposed Project under review may result in significant impacts to the environment. A Negative Declaration (ND) may be prepared instead, if the Lead Agency prepares a written statement describing the reasons why a proposed project would not have a significant effect on the environment, and therefore does not require the preparation of an EIR. According to CEQA Guidelines Section 15070, a Negative Declaration or Mitigated Negative Declaration shall be prepared for a project subject to CEQA when either:

A. The Initial Study documents that there is no substantial evidence, in light of the whole record before the agency, that the Proposed Project may result in any significant effect on the environment, or

B. The Initial Study identifies potentially significant effects, but:

    1) Revisions in the Project plans or proposals made by or agreed to by the applicant before the proposed mitigated negative declaration and initial study are released for public review would avoid effects or mitigate the effects to a point where clearly no significant effects would occur, and

    2) There is no substantial evidence, in light of the whole record before the agency that the Proposed Project as revised, may have a significant effect on the environment.

2.2. Lead Agency

The Lead Agency is the public agency that has the principal responsibility for carrying out or approving a proposed project. CEQA Guidelines Section 15051 states that if a project will be carried out by a public agency that agency shall be the Lead Agency, even if the project would be located within the jurisdiction of another public agency.

Proposed improvements would be located in areas within the City of Elk Grove and the City of Sacramento. The City of Elk Grove would construct proposed improvements within areas subject to City of Sacramento jurisdiction under a "Right to Enter and Construct Agreement." Therefore, for the purpose of CEQA, the City of Elk Grove is the Lead Agency and the City of

Sacramento is a Responsible Agency for the proposed Lower Laguna Creek Open Space Trail Project.

2.3. *Purpose and Document Organization*

The purpose of this Initial Study is to document if implementation of the Proposed Project may result in potentially significant impacts on the environment.

This document is divided into the following sections:

Section 1.0 Mitigated Negative Declaration Information Sheet

Pursuant to CEQA Guidelines 15071, Section 1 includes a brief description of the Project, the Project location, and the City of Elk Grove's proposed findings. Section 1.0 references the attached Initial Study, including proposed mitigating measures included by individual resource issue area as applicable to development of the Proposed Project.

Section 2.0 Introduction

This section provides an introduction and describes the purpose and organization of this document.

Section 3.0 Project Description

This section provides a detailed description of the Proposed Project including the location of the Project.

Section 4.0 Initial Study Checklist

This section describes the environmental setting for each of the environmental subject areas, the regulatory setting, where relevant, and evaluates a range of impacts in response to the environmental checklist. Impacts are classified as "no impact", "less than significant impact," "less than significant with mitigation incorporated," or "potentially significant impact." Where appropriate, mitigation measures are provided that mitigate potentially significant impacts to a less than significant level.

Section 5.0 CEQA Determination

This section provides the environmental determination for the Project.

Section 6.0 Report Preparation

This section identifies a list of staff and consultants responsible for preparation of this document, and persons and agencies consulted.

Section 7.0 References

This section identifies the references used in preparation of the MND.

Appendix A Mitigation Monitoring and Reporting Program

This appendix identifies mitigation measures included in the Initial Study and the responsible entity for implementation of the mitigation measures, as required by Section 15097 of the CEQA Guidelines.

Appendix B Lower Laguna Creek Erosion Control Work Plan

Appendix C Lower Laguna Creek Open Space Trail Project Air Quality Emissions Modeling

Appendix D Natural Environmental Study, Lower Laguna Creek Open Space Trail, City of Elk Grove, California, dated February 2016

2.4. Thresholds of Significance

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15358). Environment as used in this definition includes the land, air, water, minerals, flora, fauna, ambient noise, and objects which are historical or aesthetic in nature. The guidelines in the following Initial Study focus on these elements and are used as tools to determine the potential of whether or not an activity is considered significant (CEQA Guidelines Section 15065). Effects are also recognized as to whether they would occur either directly or indirectly as a result of the Project.

2.5. Terminology Used in this Document

The Environmental Checklist in this document utilizes the following terminology to describe the levels of significance associated with Project-related impacts:

Potentially Significant Impact: An impact that may have a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project" (CEQA Guidelines Section 15382); the existence of a potentially significant impact requires the preparation of an EIR with respect to such an impact.

Less Than Significant With Mitigation Incorporated: A potentially significant impact that could be mitigated to a level of less than significant through the incorporation of mitigation measures.

Less Than Significant Impact: An impact which is less than significant and does not require the implementation of mitigation measures.

No Impact: Utilized for checklist items where development of the Project would not have any impact and does not require the implementation of mitigation measures.

2.6. *Required Permit Approvals*

Implementation of the Proposed Project is anticipated to require permits and authorizations as summarized in **Table 2.6-1** below.

TABLE 2.6-1 — POTENTIAL RESOURCE AGENCY PERMITTING REQUIREMENTS

Approving Agency	Permit/ Approval
Federal Agencies	
U.S. Fish and Wildlife Service (USFWS)	Compliance with Section 7 of the Federal Endangered Species Act (16 USC 1536)
U.S. Army Corps of Engineers (USACE)	Compliance with Section 404 of the Federal Clean Water Act
State Historic Preservation Officer (SHPO)	Compliance with Section 106 of the National Historic Preservation Act
State Agencies	
State Water Resources Control Board, Regional Water Quality Control Board (SWRCB, RWQCB)	Coverage under the General Construction Activity Storm Water Permit (§ 402 of the Clean Water Act, 40 CFR Part 122)
State Water Resources Control Board, Regional Water Quality Control Board (SWRCB, RWQCB)	Water Quality Certification (§ 401 of the Clean Water Act)
California Department of Fish and Wildlife (CDFW)	Streambed Alteration Agreement (§1602 of the Fish and Game Code)
Local Agencies	
City of Elk Grove	Project Approval/IS/MND Adoption
City of Sacramento	IS/MND Adoption

3.0 PROJECT DESCRIPTION

3.1. Project Location

The Project site is located approximately 0.5 mile east of Franklin Boulevard, and approximately two miles west of California State Route 99. The site is bisected to the south by Big Horn Boulevard, and bordered to the north by Laguna Creek, and can be located within portions of Sections 21 and 28, Township 7 North, Range 5 East on the USGS *Florin, California* 7.5-minute quadrangle (38° 26' 17.783" North, 121° 26' 4.170" West) (Project Site) (**Figure 3.2-1**).

Proposed improvements within the City of Elk Grove would traverse through an existing area of open space as well as the Laguna Springs Unit 2 Open Space Preserve. Proposed improvements within the City of Sacramento would extend through the North Laguna Creek Wildlife Area.

3.2. Environmental Setting

3.2.1. General Plan Land Use Determination and Zoning Designation

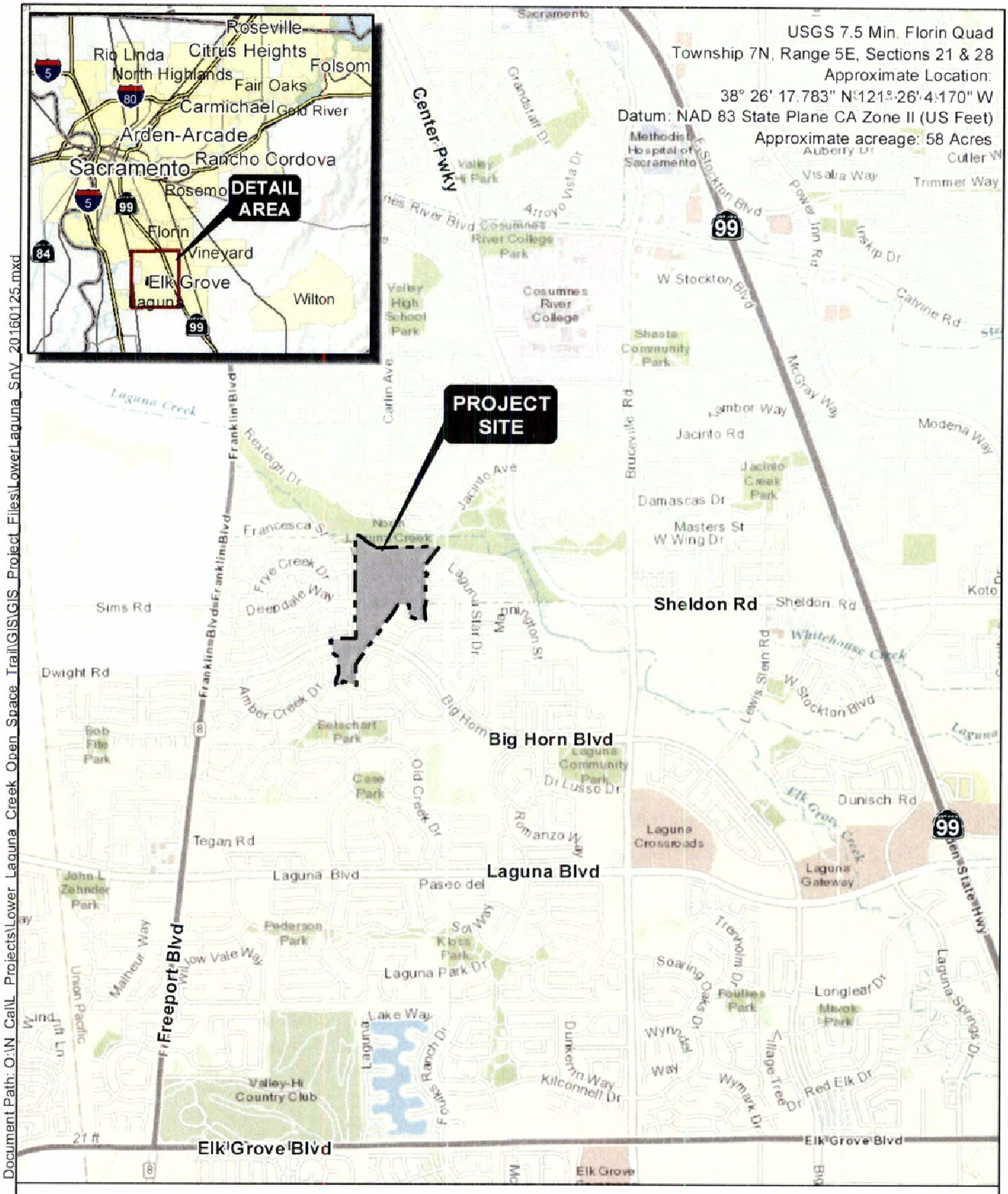
As shown on **Figure 3.2-2**, the northern portion of the Project Site is located within the City of Sacramento, while the southern portion of the Project Site is located within the City of Elk Grove. The southern portion of the Project Site is designated in the *City of Elk Grove General Plan, Land Use Element* as Public Open Space/Recreation and Public/Quasi Public, and Multi-Family Residential (City of Elk Grove 2003). The northern portion of the Project Site is designated in the *City of Sacramento General Plan, Land Use and Urban Design Element* as Parks and Recreation (City of Sacramento 2015a) (**Figure 3.2-2**). The Project Site is zoned as Open Space - Park by the City of Elk Grove and Single Family Residential and Agriculture-Open Space by the City of Sacramento (**Figure 3.2-3**).

3.2.2. Surrounding Land Uses

The Project Site is surrounded by residential communities to the east, south, and west, and John Ehrhardt Elementary School further to the south. Laguna Creek borders the Project Site to the north, and residential development lies across the creek to the north.

3.2.3. Biological Communities

Two of the parcels within the Project Site are designated as wildlife preserve land and retain the natural landscape. The Project Site is primarily characterized by non-native annual grassland. A number of seasonal wetlands and vernal pools also occur within the Project Site. The extent of individual biological communities mapped within the Project Site is summarized in **Table 3.2-1**.



LOWER LAGUNA CREEK OPEN SPACE TRAIL SITE AND VICINITY

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
© 2016

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FIGURE 3.2-1

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LOWER LAGUNA CREEK OPEN SPACE TRAIL GENERAL PLAN DESIGNATIONS

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Figure 3.2-2

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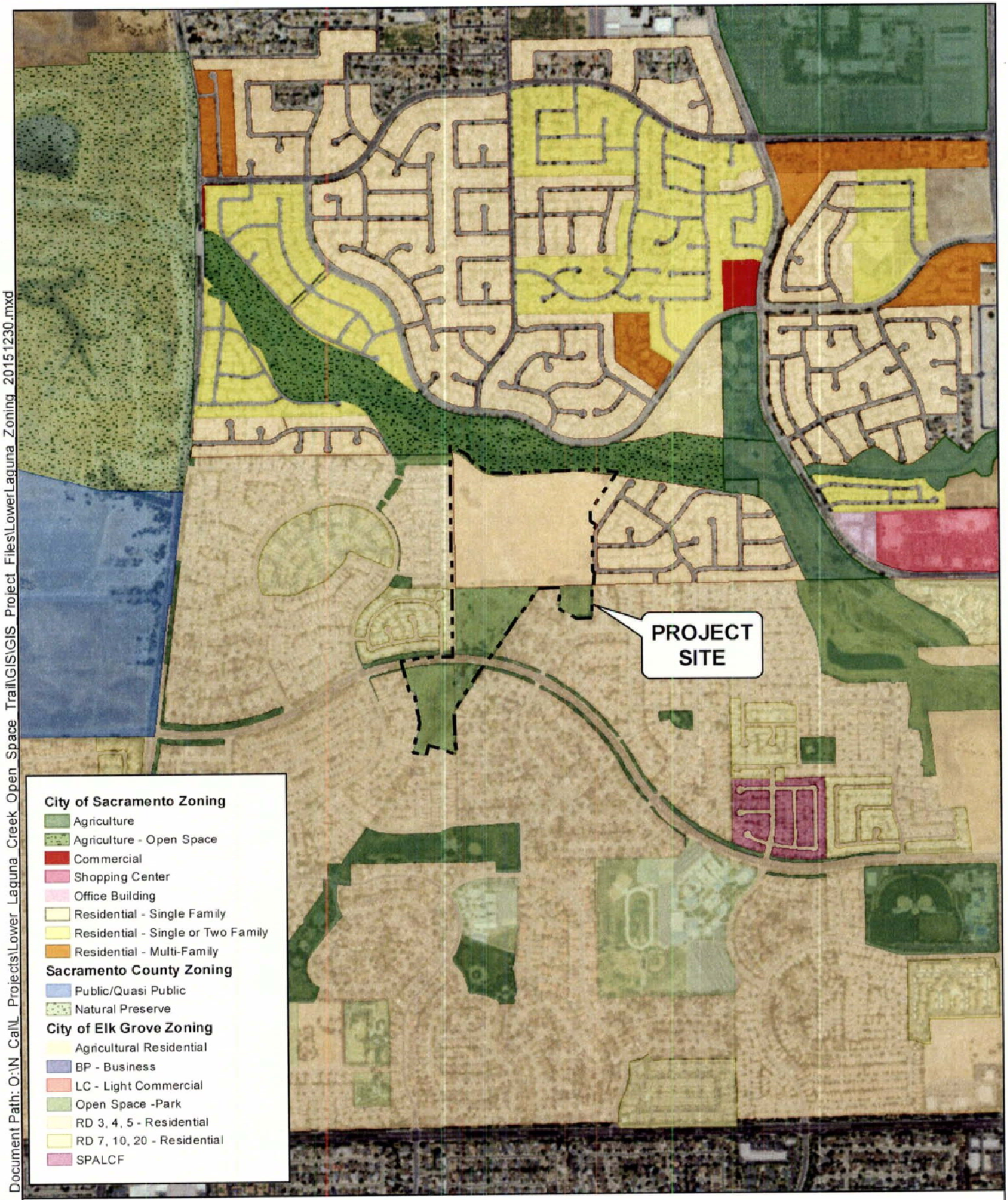

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LOWER LAGUNA CREEK OPEN SPACE TRAIL ZONING

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Figure 3.2-3

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TABLE 3.2-1 — BIOLOGICAL COMMUNITIES AND ACREAGES WITHIN THE PROJECT SITE

Biological Community	Acreage
Non-Native Annual Grassland	51.63
Developed/Disturbed	2.90
Eucalyptus Grove	1.40
Oriental Landscaping	0.98
Depressional Seasonal Wetland	0.75
Oak Woodland	0.91
Vernal Pool	0.18

3.2.4. Topography

Topography within the Project Site is relatively flat and ranges from approximately 20 to 30 feet above mean sea level (MSL).

3.2.5. Master Plans

City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan

The City of Elk Grove currently contains 29 miles of trails for pedestrians and bicyclists (City of Elk Grove 2014). The *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* (BPTMP) was adopted in July 2014 to guide and influence bicycle, pedestrian, and trail policies within the City of Elk Grove to make alternative transportation modes safer and more convenient for the community (City of Elk Grove 2014). The goal of the BPTMP is to create connectivity for bicycles and pedestrians in the City of Elk Grove through a network of trails. One of the BPTMP targets for improvements to the trail system is to connect existing trails. The BPTMP identifies the proposed Open Space Trail alignment as a proposed Class I bikeway to connect the North Laguna Creek Walking Trail in the City of Elk Grove to the Ryland Trail in the City of Sacramento (City of Elk Grove 2014).

Sacramento County Bikeway Master Plan

The *Sacramento County Bikeway Master Plan* (SCBMP) was adopted in April 2011 to guide and influence bikeway policies, programs, and development in Sacramento County. The SCBMP was first adopted in 1993 and is now a joint document with the City of Sacramento and Sacramento County (Fehr & Peers, Inc. 2011). There are a total of 203.9 miles of existing bikeways in Sacramento County and the SCBMP recommends developing a more continuous bicycle network. The SCBMP identifies the need for more access to regional parks, schools, public facilities, employment centers, and residential land uses, verifying the necessity of the proposed open space trail (Fehr & Peers, Inc. 2011). The SCBMP identifies a proposed off street bikeway along the south side of Laguna Creek.

Sacramento Area Council of Governments Regional Bicycle, Pedestrian, and Trails Master Plan

The *Sacramento Area Council of Governments* (SACOG) *Regional Bicycle, Pedestrian, and Trails Master Plan* (SACOG Master Plan) was updated in 2015 and outlines a complete transportation system for healthy living and active communities with bicycle and pedestrian Project plans. The SACOG Master Plan identifies a Proposed/Planned Class I Multi-Use Trail within the City of Elk Grove and the City of Sacramento. Within the City of Elk Grove, the proposed trail is shown along an alignment parallel to existing overhead electrical easements from Elk Springs Way through Big Horn Boulevard to the City of Elk Grove limits. The alignment then follows east terminating at Fieldale Drive. Within the City of Sacramento, a proposed trail is shown along an alignment parallel to existing overhead electrical easements and the south side of Laguna Creek (SACOG 2015).

Laguna Creek Watershed Action Plan

The *Laguna Creek Watershed Action Plan* (Action Plan) recommends actions to ensure a healthy watershed community for environmental resources and people who utilize the watershed. The Action Plan identifies the need for a North Laguna Creek Wildlife Education and Stewardship Area. The recommended action identifies the use of the trail-lined natural buffer area for recreational and educational opportunities to increase watershed education and stewardship among neighborhood residents and local schools (Laguna Creek Watershed Council 2009).

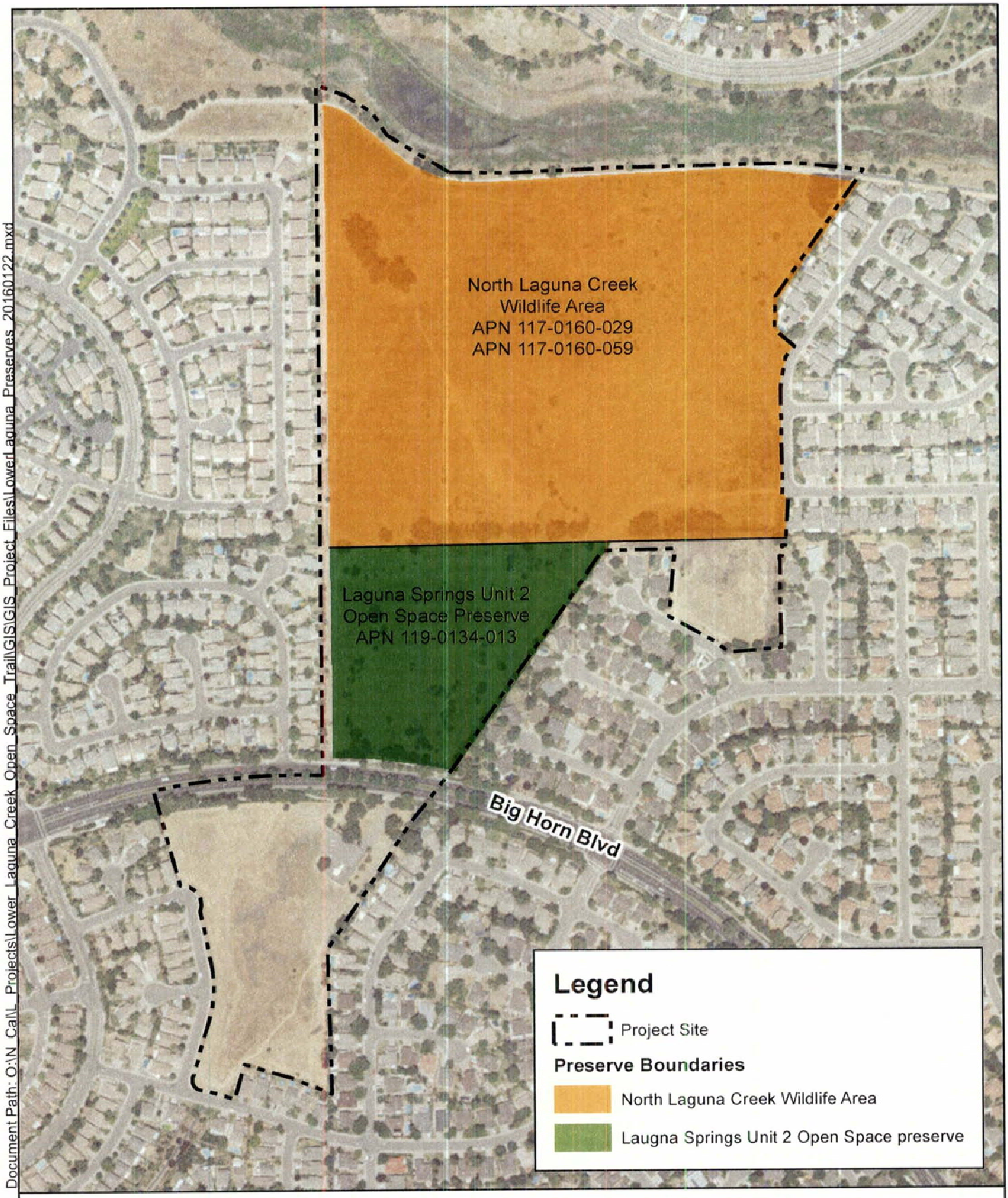
3.2.6. Laguna Springs Unit 2 Open Space Preserve

The Laguna Springs Unit 2 Open Space Preserve (Preserve) is located in the City of Elk Grove in south Sacramento County between Bruceville Road and Franklin Road, bordered by Big Horn Boulevard on the south and City of Sacramento preserve lands on the north (APN: 119-0134-013) (**Figure 3.2-4**). The Preserve encompasses 11.2 acres and was created to compensate for the loss of 2.9 acres of waters of the U.S. impacted from development of a residential development by Ryland Homes in the Laguna Springs Subdivision. The Preserve is divided into two areas, the first with seasonal marsh, constructed vernal pools, and upland habitat. The second area in the Preserve contains seasonal wetland and upland habitat. The Preserve is managed by the City of Elk Grove. The Operations and Maintenance Plan prepared for the Preserve identifies an interpretive educational area and trail as one of the allowable functions within the Preserve (Marcus H. Bole & Associates 2011).

3.2.7. North Laguna Creek Wildlife Area

A portion of the North Laguna Creek Wildlife Area (Wildlife Area) is located in the City of Sacramento along Laguna Creek adjacent to North Laguna Creek Park and residential development (APN: 117-0160-029 and 117-0160-059) (**Figure 3.2-4**). The Wildlife Area was created in 1988 when the City of Sacramento completed floodway improvements to the Laguna Creek area. The City of Sacramento's Federal Clean Water Act Section 404 Permit (No. 9570) required floodway improvements and stipulated that the City of Sacramento implement wetland habitat and restoration along the floodway. The 117-acre Wildlife Area is managed by the City of Sacramento, Department of Parks and Recreation under the conditions set forth in

the Project 404 permit and the Laguna Creek Assessment District Final Wetland Mitigation Plan (USACOE 1987). The Wildlife Area contains vernal pools, emergent marsh, and riparian woodland that have been restored and preserved as part of the Management and Monitoring Plan for the Wildlife Area.



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LOWER LAGUNA CREEK OPEN SPACE TRAIL PRESERVES

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Figure 3.2-4

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3.2.8. Existing Trails and Roads

Ryland Trail

The current alignment of Ryland Trail ends at Elk Springs Way and provides improved access to existing neighborhoods south of the Project Site including Betschart Park, Wackman Park, Marion Mix Elementary School, and John Ehrhardt Elementary School. The asphalt concrete trail is approximately 10-feet wide with two-foot shoulders of decomposed granite.

Elk Springs Way

Elk Springs Way is an urban local road at the south end of the Project limits. The local road is an undivided two lane roadway with curb, gutter, and sidewalks.

Big Horn Boulevard

Big Horn Boulevard is an urban minor arterial that runs through the center of the Project Site. Big Horn Boulevard is a divided four lane roadway, with landscaped median, Class II bicycle lanes, curb, gutter, and separated sidewalk.

North Laguna Creek Walking Trail

The North Laguna Creek Walking Trail parallels the south bank of Lower Laguna Creek at the northern end of the Project Site and ultimately connects to the existing pedestrian bridge over the creek. The trail is approximately 10-feet wide and comprised of decomposed granite.

3.3. Project Purpose & Objectives

The City of Elk Grove proposes the development of a 1.15-mile Class I multi-use bikeway (4,752 feet of paved trail and 1,320 feet of optional paving south of Laguna Creek) and educational area within the City of Elk Grove and City of Sacramento, California. The Proposed Project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers. As described in detail within **Section 3.4**, additional Project amenities would include landscape improvements, trail nodes and signage, approximately eight culverts, a signalized pedestrian crossing at Big Horn Boulevard, and an educational area with a new parking lot. The proposed educational area would provide opportunities for school field trips and other educational activities and educational events with an outdoor amphitheater and stage, and several small gathering areas (Proposed Project) (**Figure 3.4-1**).

The Lower Laguna Creek Open Space Trail would connect the North Laguna Creek Walking Trail and Ryland Trail allowing the opportunity for bicycle and pedestrian commuters and students to enjoy the open space, and natural environmental features of the preserve.

Closing the gap between the two existing trails would provide a connecting link that would ultimately provide trail users with access to a vast system of trails, with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. The trail connection and educational area would accommodate a variety of users including students

traveling to and from John Ehrhardt Elementary, Laguna Creek High School, Marion Mix Elementary School, Barbara Comstock Morse Elementary School, Harriet Eddy Middle School, and Cosumnes River College, bicycle commuters traveling to downtown Sacramento, recreational trail users, and those traveling to various commercial centers. Development of the Proposed Project would provide greater accessibility to the existing trail system within the City of Elk Grove and make trails accessible to additional homes.

3.4. Project Components

3.4.1. Trail Design

Development of the Proposed Project would include 1.15 miles (4,752 feet of paved trail and 1,320 feet of optional paving south of Laguna Creek) of new trail (Class I bikeway), trail signs, striping, and pavement markings (**Figure 3.4-1**). Paved surfaces would be Hot Mixed Asphalt (HMA) or stabilized Decomposed Granite (DG) with base and sub base as needed. For the base material aggregate base would be used and for the sub base it would be either native material or a treated native material. Treatments would include cement or lime. The trail would be developed as a standard 10-foot wide path with two-foot shoulders, except at the intersection of two or more trail segments where the trail would be wider. The trail would follow the existing informal trails where feasible and would avoid alignments directly adjacent to the back of residential homes, and would maintain existing gradual slopes and relatively flat natural topography. Side slopes would be constructed with a 3:1 slope.

The trail segment from Elk Springs Way to Big Horn Boulevard would have reversing 100-foot radii curves at Elk Springs Way and follow the existing berm. A trail connection would be added at Coaldale Court to connect with the existing Americans with Disabilities Act (ADA) ramp. To avoid existing Sacramento Municipal Utility District (SMUD) substations and impacts to vegetation, the trail alignment would tie into the existing sidewalk. A conventional mid-block crossing at Big Horn Boulevard would be located where the mid-block signal masts and would not impact the existing utilities, and would not require a new driveway at the SMUD substation (**Figure 3.4-1**).

The section of the trail alignment from Big Horn Boulevard to the Elk Grove City limits would be designed to balance cut/fill. The educational area would be located to the west of this section of trail, near the Big Horn Boulevard crossing (**Figure 3.4-1**).

The east leg of the trail alignment from the City of Elk Grove limits to Laguna Creek would avoid wetlands, utilities, and residences. The trail alignment would connect to Dunstan Place with an additional connection at Fieldale Drive (**Figure 3.4-1**).

The west leg of the trail alignment from the City of Elk Grove limits to Laguna Creek would follow the existing informal trail through the preserve. The trail alignment would meander between multiple wetlands and locations of dense trees (**Figure 3.4-1**). Impacts to aquatic features would be avoided through trail design as well as through the implementation of construction protocols, discussed in detail in **Section 3.5**.

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LOWER LAGUNA CREEK OPEN SPACE TRAIL PROPOSED PROJECT

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

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FIGURE 3.4-1

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3.4.2. Landscape Improvements

Landscape improvements along the trail corridors would be associated with important nodes along the trail, such as trail connections, street crossings, and stopping points. Stopping points may include interpretive signs, overlook areas, and bench/rest areas. All stopping points along the trail would be ADA compliant. The landscaping would comply with the Consumes Community Services District (Consumes CSD) standards, as they are responsible for trail maintenance in the City of Elk Grove. The *Consumes Community Services District Parks and Recreation Master Plan* (September 2009) identifies walking, biking, and equestrian trails as the second highest park facility need.

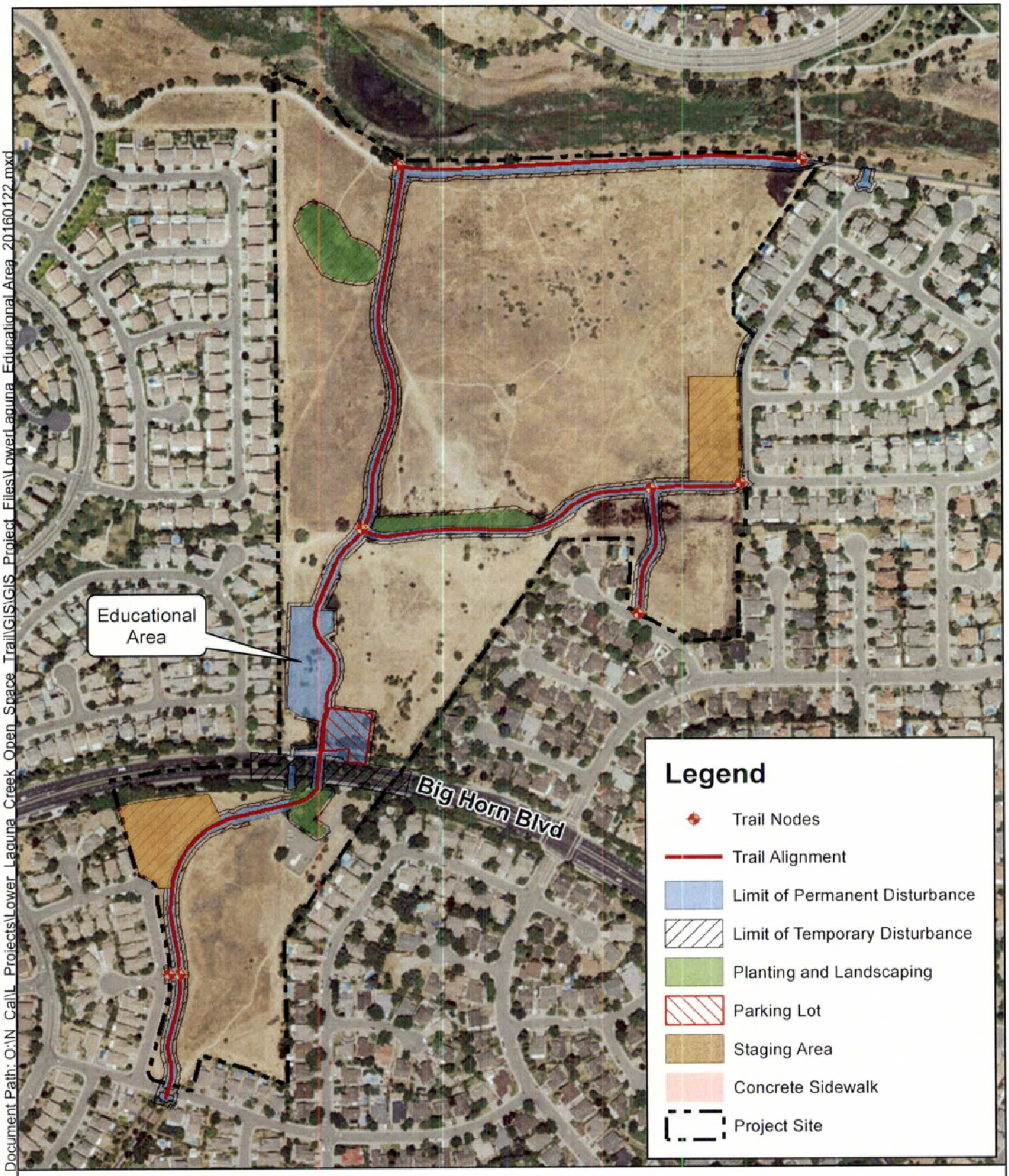
The plant palette for landscaping would consist of native plants in the preserve areas north of Big Horn Boulevard and a mix of native plants and low water use plants south of Big Horn Boulevard. Safety and clear site lines would be considered in all plantings, existing trees and shrubs along the proposed trail alignment would be pruned. Large dense shrubs that may create hiding places for people would not be planted next to the trail alignment and plantings around street crossings would maintain required site triangles. Additionally, some or all of the non-native eucalyptus trees may be removed.

3.4.3. Educational Area

A 60,000 square foot educational area with stabilized decomposed granite trails, interpretive sign stations, and an amphitheater would be constructed within the Laguna Springs Unit 2 Open Space Preserve for use by the local Elk Grove Unified School District and trail users (**Figure 3.4-2**). The educational area would be located within the City of Elk Grove just north of Big Horn Boulevard, on the western side of the trail alignment (**Figure 3.4-1**). The educational area would create up to five outdoor gathering areas for small groups and educational presentations with approximately 9,000 square feet of trails and paved areas. Activities anticipated within the educational area include: watershed education, environmental stewardship, science related education activities, art related education activities, after school program use, and physical education related activities. The educational area may provide safety lighting and electrical services for educational needs. Electricity would come from existing service within Big Horn Boulevard right-of-way. No large-scale special events or other loud recreational uses are anticipated.

The educational area would include an amphitheater/presentation area for larger gatherings. A 10-foot by 12-foot area surfaced with permeable pavers would serve as the stage in the amphitheater and would be constructed to blend with the existing natural topography. The amphitheater would provide seating for up to 65 people to view presentations on the stage. Seating in the educational area may include logs and rocks in addition to benches.

Trails within the educational area would be constructed of stabilized decomposed granite for walkways and gathering areas. Paths would be designed to allow maintenance access to the educational area.



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LOWER LAGUNA CREEK OPEN SPACE TRAIL
CONCEPTUAL DESIGN OF EDUCATIONAL AREA

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Date: 03/02/2016

FIGURE 3.4-2

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The existing oak trees within the educational area would be preserved and only native plants would be utilized for landscaping. Approximately 8,000 square feet within the educational area would be landscaped with native plantings. Large evergreen trees and shrubs would be planted on the west side of the gathering areas to help screen the educational area from adjacent residences. An additional 43,000 square feet would remain as native surroundings.

3.4.4. Culvert Crossings and Hydrology

To minimize changes to wetland hydrology, the trail Project will maintain existing grades and drainage patterns to the greatest extent feasible. Additionally, permeable asphalt paving may be used to avoid concentration of runoff during storm events. Side slopes would be constructed with a 3:1 slope.

A total of eight culverts are proposed at the existing ditches or other locations within the Project Site. Installation of these culverts would replicate the pre-Project hydrology of the Project Site, and would consist of the construction of 12-inch to 24-inch pipes with flared end sections.

The subdivision standards within the City of Elk Grove and City of Sacramento require a secondary overland release should storm drain systems fail. There is an existing easement at Compass Court for this secondary overland release. The Proposed Project would replicate pre-Project hydrology at this release point.

3.4.5. Road Crossings and Signage

Several road crossings and trail markers are proposed along the trail alignment to ensure public safety on the trail. The trail pavement would have delineation markers and other markings and signs necessary to meet the City of Elk Grove and City of Sacramento standards as well as the California Manual of Uniform Traffic Control Devices (MUTCD) standards. The City of Elk Grove may also elect to provide wayfinding signs. According to the BPTMP all bicycle striping and wayfinding signs shall also conform to the Caltrans *Highway Design Manual* chapter 1000 (City of Elk Grove 2014). The trail would have one unsignalized mid-block crossing at Elk Springs Way. Signage may also be constructed on Elk Springs Way and Fieldale Drive to accommodate Class III bike route to connect to the trails existing Class I and II facilities.

A conventional mid-block traffic signal would be placed at the proposed pedestrian crossing at Big Horn Boulevard and would follow the California MUTCD 2014 traffic signal design standards. The mid-block traffic signal would include safety lighting and be interconnected to existing safety signals.

3.4.6. Parking

Parking for the educational area would be provided southeast of the educational area. The proposed parking area would encompass 3,400 square feet and would include 10 parking spaces.

3.4.7. Utilities

To provide water services the Proposed Project would connect to the existing water main along the north edge of Big Horn Boulevard.

Electricity would come from existing service within Big Horn Boulevard right of way.

3.4.8. Trail Amenities

Several trail nodes would be constructed at various points along the trail alignment. These nodes would include a decomposed granite pad with a bench, interpretive sign or trail map, and trash can as amenities for trail users along the alignment. **Figure 3.5-1** shows design for a typical trail node.

A post and cable fence would be constructed along the perimeter of the trail and education area to reduce unauthorized pedestrian and vehicular use in the preserve, combined with the installation of interpretive signage to enhance environmental awareness.

3.4.9. Trail Maintenance

All of the trails within the City of Elk Grove are maintained by the Cosumnes CSD and the City of Elk Grove. The City of Elk Grove maintains trail pavement while the Cosumnes CSD is responsible for all other trail features through a Master Agreement. Maintenance includes weed abatement, pruning vegetation for sight distance, sign installation and removal, damage from weather conditions, and general trail clean up (City of Elk Grove 2014).

As a component of the "Right to Enter and Construct" Agreement, the City of Elk Grove and the City of Sacramento would establish a Memorandum of Understanding defining provisions for the long-term maintenance of the trail, including designated responsibilities by jurisdiction.

3.4.10. Existing Easements

There are several existing utility easements within the Project Site, including overhead electrical easements, storm drain easements, and sanitary sewer easements. The overhead electrical easement requires the area around utilities to be maintained to facilitate access of large maintenance vehicles.

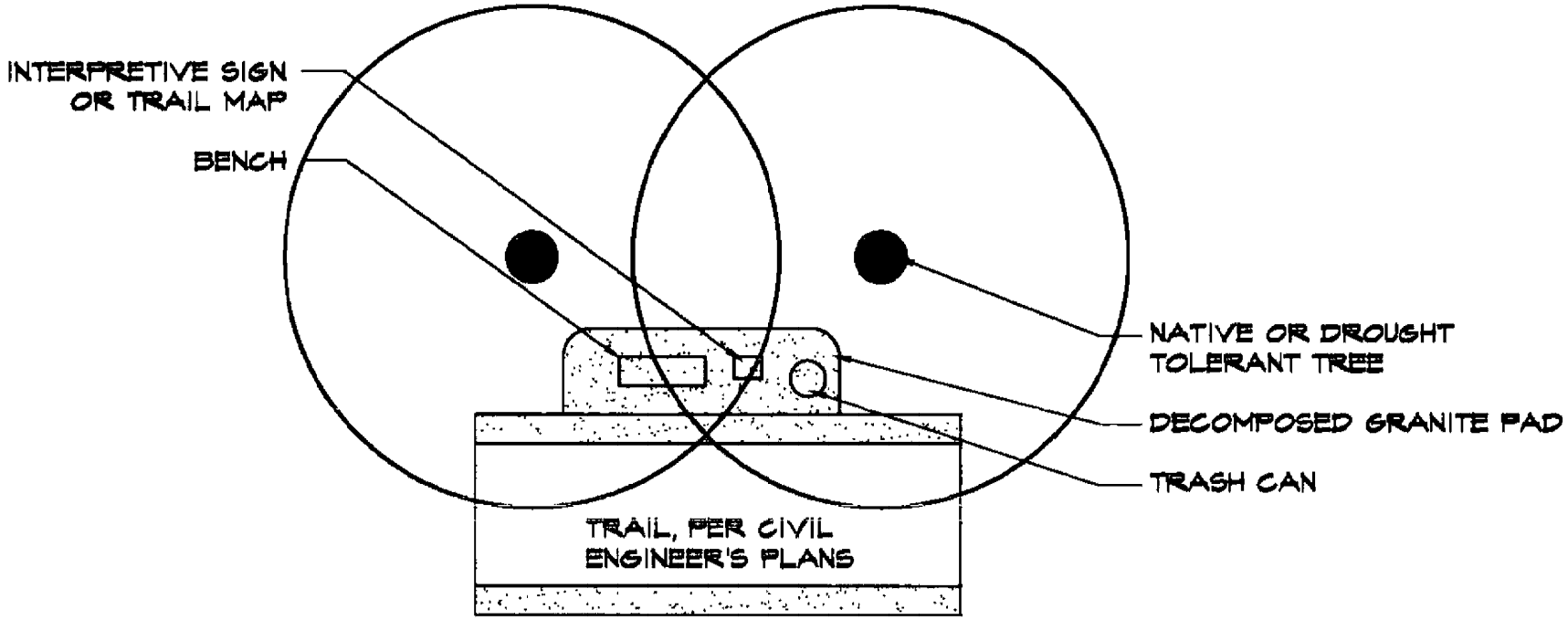
3.5. Construction

Construction along the trail alignment would involve installing BMP's, tree and brush removal, preparation of subgrade for the trail section, placement of the base aggregate, signing and striping, and placement of permanent erosion controls.

3.5.1. Staging

As shown on **Figure 3.4-1**, three potential staging areas for construction equipment are proposed within the Project Site. One potential staging area is identified in the northwest of the southernmost parcel of the Project Site off of Murrell Street. A second potential staging area is identified in the southeastern portion of the northernmost parcel of the Project Site off

of Fieldale Drive. The third and final potential staging area would be the proposed educational area.



NOTE: INTERPRETIVE FEATURE MAY NOT BE INCLUDED AT ALL TRAIL NODES

TYPICAL TRAIL NODE

LOWER LAGUNA CREEK OPEN SPACE TRAIL TYPICAL TRAIL NODE

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Figure 3.5-1

3.5.2. Avoided Aquatic Features

A minimum three-foot buffer would be maintained surrounding all avoided aquatic features in the vicinity of proposed trail improvements. The buffer would be established based on the delineated and U.S. Army Corps of Engineers (Corps) verified jurisdictional boundaries of individual features. Temporary construction exclusion fencing and a silt fence would be installed to further define these limits and exclude construction equipment and activities. A contiguous linear segment of silt fence would be installed along the northern Project boundary south of the Laguna Creek Corridor.

Caltrans' Standard Best Management Practices (BMPs), Site Monitoring Procedures, and the Lower Laguna Creek Erosion Control Work Plan will be applied during Project construction.

3.5.3. Construction Protocols

Once the Storm Water Pollution Prevention Plan (SWPPP) and schedule are approved, the contractor would receive a notice to proceed and install the temporary fence (Type ESA) to preserve existing vegetation shown to remain and protect Environmentally Sensitive Areas (ESA). In addition, a temporary silt fence would be installed along ESAs with sensitive aquatic features. The temporary fence (Type ESA) is typically installed by manual labor using hand tools to drive fence post and hang or attach high visibility fabric from outside the protected areas. The silt fence is installed in a similar manner by manual labor using hand tools to key-in the silt fence fabric, drive stakes, and hang or attach the fence fabric. This work will be completed outside the protected ESA.

Following these activities, tree and brush removal would occur to coincide with the non-nesting period of migratory birds. Tree and brush removal would be completed by a combination of manual labor with gas powered equipment such as chain saws, and equipment such as a skid steers, wood chippers, and dump trucks. Any resulting disturbed areas would be stabilized with temporary hydraulic mulch. Temporary hydraulic mulch, is typically sprayed in hydraulically from truck mounted equipment with a tackier and fiber to stabilize the slope.

For clearing and grubbing, all vegetation above the ground line and within the grading plane would be cleared by a combination of manual labor with gas powered equipment such as chain saws, and equipment such as a skid steers, scrapers, wood chippers, and dump trucks. After clearing, roots, stumps, and objectionable material within the grading plane would be grubbed. Grubbing would be completed using equipment such as scraper, excavator, and dump truck with some hand held equipment such as a stump grinder as needed.

The contractor would then prepare the subgrade for the trail section by excavating or backfilling and compacting the subgrade to the desired elevation. Equipment used for excavation would typically include bulldozers, scrapers, excavators, and front-end loaders. Cross culvers with outlet protection/velocity dissipation would be installed within the embankment using backhoes and later backfilled and compacted. Equipment to backfill would typically include dump trucks and scrapers. Rollers or other compaction type equipment would then be used for embankment compaction.

Once the subgrade is prepared the contractor will place the base course of aggregate. This material would be hauled in using a dump truck to place aggregate at the approximate depth followed by a grader and then a compaction roller. Where Hot Mix Asphalt is used, a dump truck is used to place HMA at the approximate depth followed by a paving machine and then steel drum roller. Where decomposed granite is used, the material would be hauled in using a dump truck to place aggregate at the approximate depth followed by a grader and then a compaction roller.

Additional work such as signing and striping would be done by a combination of manual labor and specialized equipment along the trail or at the trails edge. Signing would be completed by manual labor with hand tools or powered equipment to excavate sign post foundations using shovels or a powered post hold diggers and then backfilled. Striping would be done with a thermoplastic applicator that is either powered or pushed to apply the thermoplastic stripe at the center of trail.

As portions of the trail are completed, the contractor would place permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls and check dams at cross culverts. Fiber rolls and check dams are typically installed by manual labor using hand tools to key-in fiber rolls and drive stakes. The hydroseed and hydraulic mulch are typically sprayed in hydraulically from truck mounted equipment on the trail.

3.5.4. Worker Environmental Awareness Training

A Qualified Biologist shall conduct an environmental awareness training to all construction personnel before the start of construction. The training shall include the presence of sensitive habitats, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of the area of potential effect and of the permitted disturbance zones. Supporting materials containing training information should be prepared and distributed. Upon completion of training, all construction personnel shall sign a form stating that they have attended the training and understand all the measures. Proof of this instruction shall be kept on file with the Project proponent. The crew foreman shall be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. If new construction personnel are added to the site, the crew foreman shall ensure that the personnel receive the mandatory training before starting work.

3.5.5. Schedule

Construction of the Proposed Project is anticipated to commence in Spring 2017 and would take approximately four to six months to complete.

4.0 INITIAL STUDY CHECKLIST

4.1. Aesthetics

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

4.1.1. Impact Analysis

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

Less Than Significant Impact. The Project Site is surrounded by residential development with no scenic vistas overlooking the proposed trail alignment. The *City of Elk Grove General Plan* (City of Elk Grove 2003a-d) and *General Plan Draft Environmental Impact Report* (City of Elk Grove 2003e) do not identify or designate any scenic vistas in the City of Elk Grove. Development of the Proposed Project would result in a multi-use Open Space Trail and educational area within the City of Elk Grove and the City of Sacramento. The *City of Sacramento General Plan Environmental Impact Report* (EIR) describes scenic resource as a major natural open space and associated parkways (Ascent Environmental 2014).

The Proposed Project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers. Additional Project amenities would include landscape improvements, trail nodes and signage, a pedestrian crossing at Big Horn Boulevard, and an educational area with a parking lot. The Proposed Project would not adversely affect a scenic vista, but would facilitate public access through City-designated Open Space and would provide regional trail linkage.

Increased access through the Open Space would allow trail users access through and observation within these areas, and would not affect the view in any significant way because no structures are being proposed that would obstruct views. Therefore, impacts from the Proposed Project would be considered **less than significant**.

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

No Impact. California's Scenic Highway Program was created to preserve and protect the aesthetic value that is associated with the corridors adjacent to scenic highways (City of Elk Grove 2003a-d). The *City of Elk Grove General Plan* (City of Elk Grove 2003a-d) and *General Plan Draft Environmental Impact Report* (City of Elk Grove 2003e) do not identify or designate any scenic vistas in the City of Elk Grove. California Highway 160, or River Road, and State Road 99 are the only State designated scenic highways within the City of Elk Grove, and are not within the Project vicinity (City of Elk Grove 2003e). There are no other State designated scenic highways within the Project vicinity, and therefore, development of the Proposed Project would have **no impact** on scenic resources such as trees, rock outcroppings, or historic buildings along a scenic highway (County of Sacramento 2011).

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

Less Than Significant Impact. Development of the Proposed Project would result in a Class I bikeway trail alignment and educational area. The trail alignment has been designed to avoid natural resources whenever possible and would follow existing informal trails in several locations throughout the Project Site. The educational area would be located within the City of Elk Grove just north of Big Horn Boulevard, on the western side of the trail alignment. This location, to the edge of the preserve, would not degrade the views and quality of the open space. All oak trees within the educational area would be preserved and only native plants would be planted maintaining the visual character and quality of the Project Site. Large evergreen trees and shrubs would be planted on the west side of the educational area to help screen adjacent residents. Several of the existing non-native eucalyptus trees may be removed from the Project Site, however the area would be reseeded with native vegetation remaining consistent with the native vegetation within the preserve. The Proposed Project would allow trail users access to open space areas and would not degrade the existing visual character or quality of the site and its surroundings. Therefore, impacts are considered **less than significant**.

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

Less Than Significant With Mitigation Incorporated. The Lower Laguna Creek Open Space Trail is designated for use between dawn and dusk. However, recreational users may access the trail at night and use headlamps or flashlights while on the trail. These irregular light sources would not be expected to adversely affect nighttime views. In addition, the Proposed Project may include exterior safety lighting within the educational area and at select locations along the trail

alignment. This would include some possible pedestrian lighting within the parking lot as well as an electrical service system to an irrigation controller. The Big Horn Boulevard midblock crossing would also have safety lighting.

The Project Site is surrounded by residential development and exterior outdoor lighting would have the potential to affect nighttime views in the area. Implementation of **Mitigation Measure AES – 1** would minimize impacts due to new sources of light or glare through the required implementation of directional shielding and applicable current technology. Therefore, impacts resulting from implementation of the Proposed Project are considered **less than significant with mitigation incorporated**.

4.1.2. Mitigation Measures

Mitigation Measure AES — 1: All outdoor light fixtures which have the potential to impact surrounding land uses shall be designed to minimize impacts to surrounding residences through the use of directional shielding as well as current photometric technology.

4.2. *Agriculture and Forestry Resources*

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

4.2.1. Impact Analysis

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

No Impact. The Division of Land Resources Protection of the California Department of Conservation has developed the Farmland Mapping and Monitoring Program (FMMP) which monitors the conversion of the State's farmland to and from agricultural use. Data is collected at the county level to produce a series of maps identifying eight land use classifications using a

minimum mapping unit of 10 acres. According to the 2010 FMMP data, the boundaries of the Lower Laguna Creek Open Space Trail include land categorized as Urban and Built-Up Land (24.5 acres), Grazing Land (32.9 acres), and Other Land (1.0 acres) (**Figure 4.2-1**). The Project Site contains no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, **no impact** related to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use would result from development of the Proposed Project.

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

No Impact. Land within the Project alignment is mapped as Urban and Built-Up Land, Grazing Land, and Other Land by the Farmland Mapping and Monitoring Program (**Figure 4.2-1**). The northern portion of the Project Site is zoned as Rural Estates by City of Sacramento Zoning Ordinance. The southern portion of the Project alignment is located in the City of Elk Grove within areas zoned as Open Space. Development of the Proposed Project, would not impact any agricultural zoned land or land currently under a Williamson Act Contract in the City of Sacramento or City of Elk Grove. Therefore, development of the Proposed Project would not conflict with any existing agricultural zoning or Williamson Act contracts and **no impact** would result from development of the Proposed Project.

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

No Impact. No forest lands exist within the Project Site. Therefore, **no impact** related to 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)) would result from development of the Proposed Project.

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

No Impact. No forested lands are located within the vicinity of the Proposed Project. The impacts to individual tree species would be minimized in the Project design. Therefore, development of the Proposed Project would not result in the loss of any forest land or conversion of forest land to non-forest use, and **no impact** would result from development of the Proposed Project.

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LOWER LAGUNA CREEK OPEN SPACE TRAIL FARMLAND

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Figure 4.2-1

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

No Impact. The Project alignment occurs within the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area. Agricultural production is not permitted in either of these two preserves or within the additional parcel that is part of the Proposed Project. No farmland occurs in the Project vicinity and development of the proposed trail alignment and educational area would not result in conversion of farmland to non-agricultural use. Therefore, **no impact** related to conversion of agricultural land to non-agricultural use would result from development of the Proposed Project.

4.2.2. Mitigation Measures

No mitigation is warranted.

4.3. *Air Quality*

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

4.3.1. Impact Analysis

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

No Impact. The Proposed Project is located within the Sacramento Valley Air Basin. Local and regional air quality management districts, including the Sacramento Metropolitan Air Quality Management District (SMAQMD), are responsible for implementing and enforcing emissions standards and other regulations pursuant to federal and State laws. The Sacramento region's air districts work jointly with the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), Sacramento Area Council of Governments (SACGOG), county transportation and planning departments, cities and counties, and multiple non-governmental organizations to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs, and emissions reducing incentive programs (SMAQMD 2015).

The SMAQMD prepared the 1991 *Air Quality Attainment Plan* (AQAP) as required by the California Clean Air Act of 1988. The AQAP addressed the Sacramento County's non-attainment status for ozone, carbon monoxide, and particulate matter and was designed to make progress towards attaining the State ozone standard and contained preliminary implementation schedules for control programs on stationary sources, transportation, and indirect sources, and a vehicle/fuels program. SMAQMD has also adopted regulations and programs to minimize pollutant emissions.

Project development would be required to be implemented in a manner consistent with SMAQMD rules and regulations. It is not anticipated that any proposed construction or operational activities related to development of the Proposed Project would conflict with or obstruct implementation of any SMAQMD plans or regulations.

The proposed Lower Laguna Creek Open Space Trail would also be consistent with circulation policies outlined in the City of Elk Grove and City of Sacramento General Plans. The Proposed Project aligns with Policy CI-1 of the *City of Elk Grove General Plan* which promotes all modes of travel including bicycle and pedestrian to coordinate with efforts to reduce air pollution (City of Elk Grove 2003c). The Proposed Project also aligns with Policy M 1.2.1 of the Mobility Element which promotes multimodel choices, including walking and bicycling, to reduce air pollution and greenhouse gas emissions (City of Sacramento 2015b). Therefore, **no impacts** would result from development of the Proposed Project.

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

Less Than Significant With Mitigation Incorporated. Sacramento County is currently designated as in "attainment" for all State and federal ambient air quality standards, except ozone, PM_{10}, and $PM_{2.5}$. The current "non-attainment" status for ozone, PM_{10}, and $PM_{2.5}$ signifies that these pollutant concentrations have exceeded the established standard.

In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants, the SMAQMD developed the *Guide to Air Quality Assessment* in Sacramento County which has established significance thresholds for emissions of $PM_{2.5}$ and PM_{10}, 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 4.3-1** below represent the SMAQMD's current established thresholds of significance for use in the evaluation of air quality impacts associated with proposed land development projects. Thus, if the Proposed Project's emissions exceed the pollutant thresholds presented in **Table 4.3-1**, the Project would have the potential to result in significant effects to air quality, and affect the attainment of federal and State Ambient Air Quality Standards.

TABLE 4.3-1 — SMAQMD MASS EMISSIONS THRESHOLDS OF SIGNIFICANCE

Pollutant	Construction Threshold (lbs./day)	Operational Threshold (lbs./day)
ROG	None	65
NO_x	85	65
PM_{10}	80[1]	80[1]
$PM_{2.5}$	82[1]	82[1]

Source: SMAQMD 2015

Construction Emissions

Project construction is planned to commence during spring 2017, and would involve mechanical labor for construction of the trail and educational area. Construction exhaust emissions would be generated from construction equipment, earth moving activities, construction worker commutes, and construction material hauling during the construction work window. 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. Construction-related activities are of potential concern due to the fact that Sacramento County is currently designated as "non-attainment" for ozone and PM.

Short-term, construction-related emissions resulting from Project construction were estimated using the Road Construction Emissions Model, a spreadsheet-based model specifically designed to estimate emissions associated with construction of roadway facilities and other linear projects (**Appendix C**). The model uses basic Project information to estimate a construction schedule and quantify exhaust emissions from heavy-duty construction equipment, haul trucks, and worker commute trips, as well as fugitive particulate matter dust (KD Anderson & Associates, Inc. 2016). The pollutant emissions estimated from unmitigated Project construction are shown below in **Table 4.3-2**.

[1] Assumes all feasible BACT/BMPs are applied.

TABLE 4.3-2 — ESTIMATED MAXIMUM UNMITIGATED PROJECT CONSTRUCTION EMISSIONS

Pollutant	Maximum Project Emissions (lbs./day)	SMAQMD Significance Threshold (lbs./day)
ROG	8.8	None
NO_x	95.6	85
PM_{10}	24.4	80
$PM_{2.5}$	8.1	82

Source: KD Anderson & Associates, Inc. 2016, Road Construction Emissions Model (**Appendix C**).

Estimated maximum unmitigated Project construction emissions would remain below SMAQMD significance thresholds for daily NOx emissions for the grubbing/land clearing; drainage, utilities, and sub-grade; and paving Project phases. However, as shown in **Table 4.3-2** Project-related emissions during the grading/excavation phase would be 95.6 lbs./day, which would be greater than the 85 lbs./day significance threshold. The *Guide to Air Quality Assessment in Sacramento County* states:

> *For projects that will generate maximum daily NO_x emissions that exceed the District's threshold of significance, ... the District recommends implementation of the Enhanced Exhaust Control Practices for off-road construction equipment. The District considers implementation of the Enhanced Exhaust Control Practices to achieve a 20% reduction for NO_x and a 45% reduction for PM_{10} from off-road construction equipment exhaust when compared to the state fleet average.*

Implementation of **Mitigation Measure AQ – 1** would require implementation of the SMAQMD Enhanced Exhaust Control Practices for all off-road construction equipment. **Mitigation Measure AQ – 1** would reduce Project-related NO_x emissions to 76 lbs./day, which is under the 85 lbs./day significance threshold.

As outlined in the SMAQMD *Guide to Air Quality Assessment in Sacramento County* the thresholds for PM_{10} and $PM_{2.5}$ assume implementation all feasible Best Available Control Technology (BACT)/Best Management Practices (BMP) technology at the time of construction; otherwise the significance threshold is defined as 0 pounds per day (KD Anderson & Associates, Inc. 2016). Therefore, unless Project construction is implemented utilizing all feasible air quality-related BACT/BMPs impact would be considered potentially significant. However, SMAQMD Rule 201 requires any business or person to obtain an Authority to Construct/Permit to Operate before installing or operating new equipment or processes that may release or control air pollutants to ensure that all SMAQMD rules and regulations are considered. The City of Elk Grove would be required to comply with the SMAQMD Rule 201, including the identification and implementation of all feasible BACT/BMPs, resulting in estimated maximum unmitigated Project construction emissions below the established SMAQMD thresholds for PM_{10} and $PM_{2.5}$.

With implementation of **Mitigation Measure AQ – 1** construction-related emissions resulting from construction of the Proposed Project would remain below SMAQMD thresholds, and would not substantially contribute to Sacramento County's non-attainment status for ozone and particulate matter. Therefore, impacts are considered less than significant with mitigation incorporated.

Operational Emissions

Operational emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ are generated by mobile and stationary sources, including day-to-day activities such as vehicles trips to and from a given site, heavy equipment operation, landscape maintenance equipment exhaust, and consumer products (e.g., deodorants, cleaning products, spray paint, etc.). The Proposed Project is designed to provide connectivity for existing pedestrian and bicycle travel within adjacent communities and is therefore not anticipated to result in increases in roadway traffic volumes or capacity, and would therefore not affect long-term operational emissions in the Project area (KD Anderson & Associates, Inc. 2016). The proposed parking lot would accommodate approximately ten parking spaces for vehicular travel associated with educational area events. However, educational area events would be sporadic and are not anticipated to result frequent or high volume parking needs and vehicular travel. Connectivity provided by Project development would facilitate accessibility to proposed events to pedestrian and bicycle (non-vehicular) modes of transportation. No stationary emissions sources are proposed. Therefore, the Proposed Project is anticipated to result in a less than significant impact associated with operational emissions.

Proposed Project

Construction-related emissions from the Proposed Project would remain under the SMAQMD emissions thresholds, except for NO_x emissions associated with grading and excavation. Implementation of **Mitigation Measure AQ – 1** would reduce impacts to less than significant levels. Operational emissions are not anticipated to result in a substantial increase of emissions due to the fact that Project development would increase non-motorized travel accessibility and connectivity to local schools, parks and trail alignments in the area and Project development is therefore anticipated to result in a reduction in local vehicular trips. Overall impacts to air quality standards are therefore considered **less than significant with mitigation incorporated**.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?*

Less Than Significant Impact. Sacramento County is currently designated as "non-attainment" for ozone and PM. Projected growth and combined population, vehicle usage, and business activity within Sacramento County, in combination with other past, present, and reasonably foreseeable projects within the County and surrounding areas, could either delay attainment of established standards or require the adoption of additional controls on existing and future air pollution sources to offset emission increases.

Implementation of the Proposed Project would involve minimal emissions during construction and would not result in a substantial increase in long-term operational emissions, the trail would only require infrequent maintenance and visitor use of the educational area would be periodic and would include pedestrians and student by bus, for e reduction in vehicular emissions. Construction emissions would be short-term in duration, and would be implemented beginning in the spring of 2017 and completed by the end of the year. Therefore, the Proposed Project would result in a **less than significant impact**, cumulatively.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. Existing residential development surrounds the Project Site to the east, west, and south. These residences represent sensitive receptors.

Development of the Proposed Project would not involve on-site operations other than recreational use by pedestrians and bicyclists, as well as periodic visitation of the educational area. Emissions of diesel particulate matter (DPM) resulting from construction-related equipment and vehicles would be temporary and no substantial long-term concentrations of DPM emissions associated with construction of the Proposed Project are anticipated.

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

The California Air Resource Board promulgated the Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations. The ATCM is a Statewide regulation triggered prior to the ground-disturbing activities in certain areas of California, and applies to any size construction project, although there are more stringent mitigation requirements for projects that exceed one acre. Areas most likely to contain naturally occurring asbestos (NOA) are the eastern parts of Sacramento County: Folsom, and Rancho Murieta (SMAQMD 2015). The Project Site is not identified in the Department of California, Division of Mines and Geology *Open File Report 2000-19* as an area in California that is more likely to contain NOA (DOC 2000). Therefore, impacts are considered **less than significant** and no mitigation is required.

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

Less Than Significant Impact. While offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among members of the public and often result in generating citizen complaints to local governments and air districts. Project-related odor emissions would be limited to times when equipment would be utilized for construction and emissions from equipment may be evident in the immediate surrounding area. Construction activities would be short-term and would not result in the creation of long-term objectionable odors. Therefore, due to the short-term nature of the proposed construction activities, combined with the limited exposure to sensitive receptors, impacts associated with

development of the Proposed Project are considered **less than significant** and no mitigation is required.

4.3.2. Mitigation Measures

Mitigation Measure AQ — 1: All off-road construction equipment shall apply the Sacramento Air Quality Management District *Guide to Air Quality Assessment* in Sacramento County, list of Enhanced Exhaust Control Practices. The City of Elk Grove shall ensure that emissions from all off-road construction equipment would achieve a 20% reduction for NO_x.

4.4. *Biological Resources*

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☒	☐

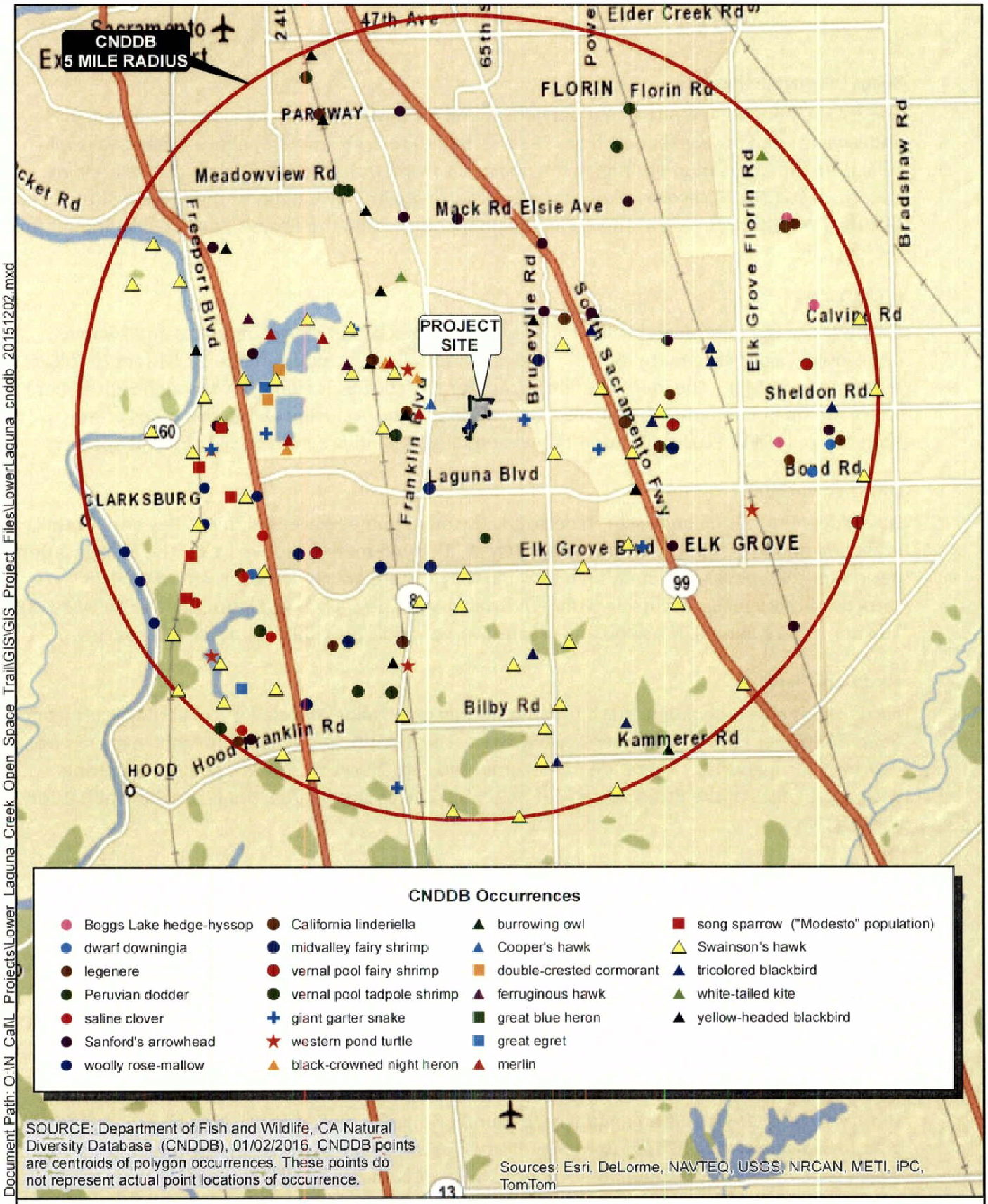
4.4.1. Impact Analysis

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?

Less Than Significant With Mitigation Incorporated. Based on a records search of the California Natural Diversity Database (CNDDB), 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 Project Site. The CNDDB special-status species occurrences in the Project vicinity are shown on **Figure 4.4-1** and enclosed with the *Natural Environment Study* [for the] *Lower Laguna Creek Open Space Trail* (NES) which was prepared by Foothill Associates (Foothill Associates 2016b) (**Appendix D**). Table 1 within the NES identifies the regionally occurring special-status species based on database searches, along with their listing, habitat requirements, and potential to occur within the Project Site (**Appendix D**). Only species that are known to be present or that have potential for occurrence within the Project Site are discussed in further detail below.

Special-Status Plants

The following special-status plants have potential to occur within the Project Site: Boggs Lake hedge-hyssop (*Gratiola heterosephala*), bristly sedge (*Carex comosa*), dwarf downingia (*Downingia pusilla*), Ferris' goldfields (*Lasthenia ferrisiae*), Ferris' milk-vetch (*Astragalus tener* var. *ferrisiae*), Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*), hogwallow starfish (*Hesperevax caulescens*), legenere (*Legenere limosa*), and saline clover (*Trifolium hydrophilum*).



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LOWER LAGUNA CREEK OPEN SPACE TRAIL CNDDB OCCURRENCES

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

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SCALE IN MILES

Drawn By: MUB
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FIGURE 4.4-1

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Boggs Lake hedge-hyssop

Boggs Lake hedge-hyssop is an annual herb found on clay soils along lake margins of marshes and swamps and in vernal pools from 33 to 7,792 (10 to 2,375 meters) above mean sea level (MSL). The identification period for this species is from April through August. There are two documented CNDDB records of this species occurring within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools within the Project Site provide habitat for this species.

Bristly sedge

Bristly sedge is a perennial rhizomatous herb found on coastal prairie, marshes and swamps, occasionally along lake margins, and valley and foothill grassland from 0 to 2,051 feet (0 to 625 meters) above MSL. The identification period for this species is from May through September. There are no documented CNDDB records of this species occurring within five miles of the Project Site (CDFW 2015). The non-native annual grassland provides habitat for this species.

Dwarf downingia

Dwarf downingia is an annual herb occasionally found in mesic areas within valley and foothill grassland and vernal pools from 3 to 1,460 feet (1 to 445 meters) above MSL. The identification period for this species is from March through May. There are three documented CNDDB records of this species occurring within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The non-native annual grassland and created vernal pools provide habitat for this species.

Ferris' goldfields

Ferris' goldfields is an annual herb found primarily on alkaline and clay soil in vernal pools from 66 to 2,297 feet (20 to 700 meters) above MSL. The identification period for this species is from February through May. There are no documented CNDDB records of this species occurring within five miles of the Project Site (CDFW 2015). The created vernal pools provide habitat for this species.

Ferris' milk-vetch

Ferris' milk-vetch is an annual herb found in meadows and seeps, which are occasionally vernally mesic, and valley and foothill grassland, which are occasionally on subalkaline flats, from 7 to 246 feet (2 to 75 meters) above MSL. The identification period for this species is from April through May. There are no documented CNDDB records of this species occurring within five miles of the Project Site (CDFW 2015). The non-native annual grassland provides habitat for this species.

Heckard's pepper-grass

Heckard's pepper-grass is an annual herb found primarily on alkaline flats in valley and foothill grassland from 7 to 1,657 feet (0 to 505 meters) above MSL. The identification period for this species is from March through May. There are no documented CNDDB records of this species occurring within five miles of the Project Site (CDFW 2015). The non-native annual grassland provides habitat for this species.

Hogwallow starfish

Hogwallow starfish is an annual herb found within valley and foothill grassland on mesic and clay sites and within shallow vernal pools from 0 to 1,657 feet (0 to 505 meters) above MSL. The identification period for this species is from March through June. There are no documented CNDDB records of this species occurring within five miles of the Project Site (CDFW 2015). The created vernal pools and non-native annual grassland provide habitat for this species.

Legenere

Legenere is an annual herb found in vernal pools from 3 to 2,887 feet (1 to 880 meters) above MSL. The identification period for this species is from April through June. There are five documented CNDDB records of this species occurring within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools provide habitat for this species.

Saline clover

Saline clover is an annual herb found in marshes and swamps, valley and foothill grassland, which are occasionally mesic and alkaline, and vernal pools from 1 to 984 feet (0 to 300 meters) above MSL. The identification period for this species is from April through June. There are five documented CNDDB records of this species occurring within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools and non-native annual grassland provide habitat for this species.

Special-Status Wildlife Species

The following special-status wildlife species have potential to occur within the Project Site: vernal pool branchiopods, including California linderiella (*Linderiella occidentalis*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), vernal pool fairy shrimp (*Branchinecta lynchi*), and vernal pool tadpole shrimp (*Lepidurus packardi*), giant garter snake (*Thamnophis gigas*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), white-tailed kite (*Elanus leucurus*), and American badger (*Taxidea taxus*).

Vernal Pool Branchiopods

California linderiella is a relatively common branchiopod found in vernal pools, swales, and ephemeral freshwater habitats. There are seven CNDDB occurrences documented within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools provide habitat and the seasonal wetlands provide marginal habitat given that the wetlands are shallow and that the Project Site undergoes routine mowing practices.

Midvalley fairy shrimp occur in small, short-lived vernal pools and grass-bottomed swales ranging from 4 to 663 square feet (0.37 to 61.6 square meters) in area and averaging less than 4 inches (10 centimeters) in depth (Helm 1998). The species has been collected from pools on a volcanic mudflow landform of the Merhten Formation in Pentz Gravelly Loam and Raynor Clay soils. he midvalley fairy shrimp has also been found on San Joaquin Silt Loam soils on the Riverbank formation on Low Terrace landforms. There are seven CNDDB occurrences documented within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created

vernal pools provide habitat and the seasonal wetlands provide marginal habitat given that the wetlands are so shallow and that the Project Site undergoes routine mowing practices.

Vernal pool fairy shrimp are listed as federally threatened. Vernal pool fairy shrimp are found in vernal pools, swales, and ephemeral freshwater habitats. These species are most commonly found in grassy or mud bottomed pools or basalt flow depression pools in unplowed grasslands. The pools vary in size from over 10 hectares to only 20 square meters. There are four CNDDB occurrences documented within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools provide habitat and the seasonal wetlands provide marginal habitat given that the wetlands are shallow and that the Project Site undergoes routine mowing practices.

Vernal pool tadpole shrimp are listed as federally endangered. Vernal pool tadpole shrimp are found in natural and artificial seasonally ponded habitats including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetlands range from very small (2 square meters) to very large (356,253 square meters). There are ten CNDDB occurrences documented for this species within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The created vernal pools provide habitat for these species however, the proposed trail alignment is lower in elevation than the top of the banks of the constructed vernal pools, thereby avoiding the potential to alter the hydrology. The proposed trail alignment occurs within the micro-watershed of the depressional seasonal wetlands, these features are considered to be marginal habitat for vernal pool branchiopods due to the relatively short inundation period and saturation-dominated hydrologic regime.

Giant Garter Snake

Giant garter snake inhabits sloughs, marshes, low-gradient streams, flooded rice fields, ponds, irrigation and drainage ditches, and adjacent upland habitats. This snake forages primarily at the interface between open water and emergent aquatic vegetation, and is most often found in habitats with slow flowing or standing water, permanent summer water, mud bottoms, earthen banks, and an abundance of prey such as small fish, frogs, and tadpoles. Giant garter snakes use upland habitat with grassy or shrubby banks for basking and thermoregulation. They also use upland burrows and soil or rock crevices as nighttime refugia, daytime escape cover, and winter aestivation sites. Giant garter snakes typically emerge from winter retreats from late March to early April and can remain active through October. The timing of their annual activities is subject to varying seasonal weather conditions. Cool winter months are spent in dormancy or periods of reduced activity.

While this species is strongly associated with aquatic habitats, individuals have been noted using burrows as far as 165 feet from marsh edges during the active season and retreats more than 800 feet from the edge of wetland habitats while overwintering. While the Project Site does not provide habitat, this species is known to occur within Lower Laguna Creek to the north of the Project Site. Although it is unlikely that this species would move beyond the upper banks of the creek, overland movement could occur southward over the existing trail and into the

Project Site. There are seven occurrences of the giant garter snake documented within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015).

Burrowing Owl

Burrowing owls typically occupy open, dry, sparsely vegetated habitats including grasslands and agricultural fields. Burrow availability is a critical feature of suitable habitat. Burrowing owls utilize existing burrows excavated by other animals, typically ground squirrels (*Otospermophilus beecheyi*). In areas where burrows are scarce, they can use pipes, culverts, debris piles, and other artificial structures (Center for Biological Diversity *et. al.* 2003). There are twelve documented CNDDB records for this species within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The non-native annual grassland provides habitat for this species and it has the potential to breed or winter within the Project Site.

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 *In Preparation*). 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. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley (County of Sacramento 2007). Nest locations are usually in close proximity (up to a 10-mile radius) to suitable foraging habitats, which include fallow fields, all types of grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops (SAIC 2012). Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and Dewater 1994).

The CDFW considers five or more vacant acres within ten miles of an active nest within the last five years to be significant foraging habitat for Swainson's hawk, the conversion of which to urban uses is considered a significant impact and requires mitigation, in accordance with the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk in the Central Valley of California* (CDFW 1994) (Staff Report). There are 49 CNDDB occurrences within five miles of the Project Site (CDFW 2015). There are 179 CNDDB occurrences within 10 miles of the Project Site. The nearest CNDDB record documenting an active nest within the last five years is occurrence number 2245. Occurrence number 2245 is documented in 2011 and is approximately 4.98 miles north of the Project Site. The trees within the eucalyptus grove provide suitable nesting habitat and the non-native annual grassland provides foraging habitat. Additionally, the riparian trees along Lower Laguna Creek to the north and within 0.25 miles of the Project Site provide nesting habitat for Swainson's hawk. The Project Site represents potential foraging and nesting habitat for Swainson's hawk.

Project construction would remove 3.76 acres of non-native annual grassland, which provides foraging habitat for Swainson's hawk. The CDFW considers five or more vacant acres within ten miles of an active nest within the last five years to be significant foraging habitat for Swainson's hawk, the conversion of which to urban uses is considered a significant impact and requires mitigation, in accordance with the Staff Report. Although an active nest is present within 4.98 miles of the Project Site, no mitigation is required since the Project would remove less than five acres of foraging habitat.

Project implementation could result in permanent and temporary direct impacts to Swainson's hawk. Permanent direct impacts to nesting habitat could occur should any active Swainson's hawk nests be present within eucalyptus trees proposed for removal. Temporary direct impacts from construction associated with trail work and the educational area could disturb nesting Swainson's hawk, if they are present in the eucalyptus trees proposed for avoidance within the Project Site and/or within the trees along the riparian corridor surrounding Lower Laguna Creek within 0.25 miles of the Project Site.

Tricolored Blackbird

Tricolored blackbird was identified as a candidate species for listing on December 10, 2015. Tricolored blackbird is a colonial species that breeds in freshwater marshes of cattail (*Typha sp.*), bulrush (*Schoenoplectiella* sp. and *Isolepis* sp.), sedge (*Carex* sp.), and non-native vegetation including Himalayan blackberry (*Rubus armeniacus*). Nests occur in large colonies of up to thousands of individuals (Nature Serve 2015). Nesting locations must be large enough to support a minimum colony of approximately fifty pairs (Zeiner *et. al.* 1990). This species forages in grasslands and agricultural fields with low-growing vegetation. There are nine CNDDB records for this species within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The Project Site does not provide breeding habitat for the tricolored blackbird, and the non-native annual grassland provides marginal foraging habitat given the high levels of disturbance associated with the Project Site. The Proposed Project would not result in impacts to tricolored blackbird based on the minimal percentage of foraging habitat given the high levels of disturbance associated with multiple spot fires and routine mowing practices.

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 are two CNDDB records of white-tailed kite documented within five miles of the Project Site (**Figure 4.4-1**) (CDFW 2015). The trees within the oak woodland, eucalyptus grove, non-native annual grassland, and ornamental landscaping within the Project Site provide nesting habitat and the non-native annual grassland provides foraging habitat for white-tailed kite.

American Badger

American badgers are found in dry, open habitats including grassland and open woodland. Suitable burrowing habitat requires dry, sandy soil. Breeding occurs in summer and early fall, with young being born from March to April (Nature Serve 2015). There are no CNDDB records

for this species within five miles of the Project Site (CDFW 2015). The non-native annual grassland and burrows provide marginal habitat for the American badger give the lack of sandy soils within the Project Site.

Migratory Birds and other Birds of Prey

All raptors, including common species not considered special-status, are protected under the California Fish and Game Code (Section 3503.5). Removal or destruction of an active raptor nest is considered a violation of the Fish and Game Code. In addition, migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The non-native annual grassland and the trees within the oak woodland, eucalyptus grove, non-native annual grassland, and ornamental landscaping within the Project Site provide nesting habitat for migratory birds and raptors during the breeding season (February 15 through August 31).

Conclusion

Special-Status Plant Species

Project design, including the three-foot minimum buffer around all aquatic features, would avoid permanent direct impacts to onsite aquatic habitat, including the created vernal pools, which provide habitat for the non-listed Ferris' goldfields and Bogg's Lake hedge hyssop. However, indirect impacts to these species, if determined to be present on the Project Site, may result from construction-related activities. Implementation of construction protocols described in **Section 3.5.3**, would avoid permanent direct impacts to onsite aquatic habitat, which provides potential habitat for vernal pool plant species. Potential construction-related impacts would be further reduced through the implementation of the construction protocols described in **Section 3.5.3**. The City would be required to obtain coverage under a current NPDES General Permit prior to commencement of ground-disturbing activities.

Project implementation would result in direct impacts to potential habitat for the non-listed bristly sedge, dwarf downingia, Ferri's milk-vetch, Heckard's pepper-grass, hogwallow starfish, and saline clover through the removal of non-native annual grassland and Project construction. Implementation of **Mitigation Measure BIO – 1** would reduce impacts to less than significant levels through completion of botanical surveys by a qualified botanist, and if necessary a mitigation plan in consultation with CDFW.

Special-Status Animal Species

Project design, including a three-foot minimum buffer around all aquatic features, and construction protocols described in **Section 3.5.3**, would avoid permanent direct impacts to onsite aquatic habitat, which provides potential habitat for vernal pool branchiopods. However, impacts to these species could occur indirectly through accidental discharge into the created vernal pools and seasonal wetlands during Project construction. Potential construction-related impacts would be further reduced through the implementation of the

construction protocols described in **Section 3.5.3**. The City would be required to obtain coverage under a current NPDES General Permit prior to commencement of ground-disturbing activities. In addition, as summarized in **Section 3.5.4**, a qualified biologist would conduct an environmental awareness training to all construction personnel before the start of construction.

The giant garter snake has the potential to occur within the Project Site, and could be impacted during Project construction. Implementation of **Mitigation Measure BIO – 2** would require pre-construction surveys for giant garter snake, designated staging areas and operation areas, a 20-mile-per-hour Project speed limit, and restoration of disturbed areas to pre-Project conditions.

Several special-status avian species have the potential to occur within the Project Site. Project construction would have the potential to impact to these species. Implementation of **Mitigation Measure BIO – 3** through **Mitigation Measure BIO – 5** would require pre-construction surveys prior to implementation of construction activities ensuring no adverse effects to special-status species. These measures would reduce potential impacts to special-status avian species to a less than significant level.

The American badger has potential to occur within the Project Site and Project construction has the potential to impact the American badger through destruction of dens, should any be present within the Project Site. Implementation of **Mitigation Measure BIO – 6** would require a pre-construction survey prior to Project construction and additional avoidance measures if any American badgers are identified. These measures would reduce potential impact to the American badger to a less than significant level. Therefore, impacts from development of the Proposed Project are considered **less than significant with mitigation incorporated**.

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

Less Than Significant With Mitigation Incorporated. 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. Sensitive habitats within the Project Site include: oak woodland, constructed vernal pools, and depressional seasonal wetlands (**Figure 4.4-2**).

Valley Oak Woodland

Oak woodland habitat occurs in the central and southern parcel of the Project Site. The oak woodland is dominated by valley oaks, with a few interior live oaks. The understory consists of small oak saplings and grasses and forbs as categorized under the Non-Native Annual Grassland biological community. Approximately 0.91 acres of valley oak woodland occur within the Project Site.

Constructed Vernal Pools

Constructed vernal pools occur along the central portion of the Project Site. Vernal pools are shallow, seasonally inundated depressional wetlands that form in soils with a subsurface layer that restricts the downward flow of water. The constructed vernal pools within the Project Site are located in an open space area within the non-native grassland. Dominant vegetation observed within these vernal pools includes: Mediterranean barley (*Hordeum marinum*) and ryegrass.

Depressional Seasonal Wetlands

Depressional seasonal wetlands occur within the Project Site. Seasonal wetlands are those depressions or topographic folds within the topography that inundate or flow for short periods of time following intense rains, but do not maintain seasonal aquatic or saturated soils conditions for durations long enough for colonization by perennial, obligate plant species. These features occur throughout the Project Site. Dominant vegetation observed within the depressional seasonal wetlands include: Mediterranean barley and ryegrass.


Tall Grass Way
Cypress Creek Way
Moon Creek Way
Owl Ct
Deepdale Way
Fieldale Dr
Anchor Bay Way
Breaker Point Ct
Harborside Way
Dunstan Pl
Kepler Ct
Steadman Pl
Brockenhurst Dr
Greybridge Ct
Big Horn Blvd
Hiddenspring Way
Ivy Spring Ct
Palm Springs Ct
Oxford Glen Pl
Murrell St
Legend
Project Site
Non-Native Annual Grassland (5
Eucalyptus Grove (1.04 Acres)
Oak Woodland (0.91 Acres)
Depressional Seasonal Wetland

Conclusion

Of the 0.91 acres of valley oak woodland within the Project Site 0.17 acre would be temporarily impacted and 0.29 acres would be permanently impacted (**Figure 4.4-3**). An Arborist Report was prepared for all trees present within the Project Site (Foothill Associates 2016b). Implementation of **Mitigation Measure BIO – 7** would require oak tree mitigation at a 1:1 ratio in accordance with the Elk Grove Municipal Code, Chapter 19.12, Tree Preservation and Protection, reducing impacts to less than significant levels.

Potentially jurisdictional wetlands and other waters of the United States present within the Project Site, that are considered sensitive habitat, include constructed vernal pools and depressional seasonal wetlands. The Project has been designed to maintain existing hydrologic connections through maintaining existing grades, using permeable materials, and installing culverts, where necessary. A minimum three-foot exclusion construction buffer along all aquatic resources would be implemented to avoid temporary or direct permanent impacts associated with construction activities.

Temporary direct impacts could occur to these species through accidental discharge into the constructed vernal pools and seasonal wetlands during construction activities. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2003) and Site Monitoring Procedures (Caltrans 2013) as well as Avoidance and Minimization Measure 4.1.2, which includes obtaining coverage under a NPDES General Permit, and implementation of the Lower Laguna Creek Erosion Control Work Plan (Erosion Control Work Plan). The BMPs detailed within the Erosion Control Work Plan include the following specific measures for avoiding adverse impacts to sensitive habitats:

- Prior to commencement of ground- or vegetation-disturbing activities, the contractor shall install a temporary fence (Type ESA) to preserve existing vegetation shown to remain and protect Environmentally Sensitive Areas (ESA) at the limit of work.

- Within 50 feet of avoided wetlands, high-visibility silt fencing shall be used as ESA fencing to minimize the transportation of water or air-borne sediment into the wetlands;

- Staging areas will include reinforced temporary construction entrances and protected concrete washout and materials storage facilities as necessary. Additionally, staging areas are located a minimum of 43 feet from the nearest wetland;

- Following the tree and shrub removal any disturbed areas will be stabilized with temporary hydraulic mulch;

- During construction, temporary hydraulic mulch, check dams, and fiber rolls will be placed in advance of predicted rain events in areas under construction;


Deepdale Way
Chesterbrook Dr
Fieldale Dr
Anchor Bay Way
Dunstan Pl
Kepler Ct
Steadman Pl
Brockenhurst Dr
Greybridge Ct
Big Horn Blvd
Hiddenspring Way
Oxford Gle
Elk Spring Way
Other Features
Project Site
Limit of Permanent Disturbance -
Limit of Temporary Disturbance -
Legend
Biological Communities
Non-Native Annual Grassland (51.76 Acres)
Eucalyptus Grove (1.04 Acres)
Oak Woodland (0.91 Acres)
Depressional Seasonal Wetland (0.75 Acres)
Vernal Pool (0.18 Acres)
Temporary Impacts
Non-Native Annual Grassland (4.53 Acres)
Eucalyptus Grove (0.85 Acres)
Oak Woodland (0.17 Acres)
Ornamental Landscaping (0.18 Acres)
Permanent Impa
Non-Native Grassland
Eucalyptus Acres)
Oak Woodl Acres)
Ornamenta Landscapir Acres)

- As portions of the trail are completed permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls may be placed along the trail alignment to minimize erosion;

- Following the completion of all grading and paving all equipment and material storage will be removed and staging areas will be repaired to resemble preconstruction conditions;

- Permanent erosion control comprised of hydroseed, hydromulch, and bio-degradable fiber rolls will be applied to the Project Site. Native seed mix will be used for all revegetation; and

- Following final stabilization temporary BMPs and the temporary fence will be removed.

Additionally, a Qualified Biologist shall conduct an environmental awareness training to all construction personnel before the start of construction. The training shall include the presence of sensitive habitats, general measures that are being implemented to conserve the species as they relate to the Project, penalties for non-compliance, and boundaries of the construction area and of the permitted disturbance zones. Supporting materials containing training information should be prepared and distributed. Upon completion of training, all construction personnel should sign a form stating that they have attended the training and understand all the measures. Proof of this instruction should be kept on file with the Project proponent. The crew foreman should be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. If new construction personnel are added to the site, the crew foreman should ensure that the personnel receive the mandatory training before starting work.

Permanent improvements that will minimize potential future impacts to these species include: construction of a post and cable fence along the perimeter of the trail and education area to reduce unauthorized pedestrian and vehicular use in the preserve and installation of interpretive signage to enhance environmental awareness.

If the U.S. Army Corps of Engineers verifies that the artificial irrigated seasonal wetland and the two manmade excavated linear ditch features are not jurisdictional, then the features may still be subject to waste discharge under the Porter-Cologne Water Quality Control Act should the Proposed Project result in impacts to these features. 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 a community sewer system, within a region that could affect the quality of the water of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredge or fill material may constitute a discharge of waste that could affect the quality of waters of the State. Implementation of **Mitigation Measure BIO – 8** requires compliance with the State Water Resources Control Board Water Quality Order NO. 2004-0004-DWQ, if waters are considered not to be jurisdictional. Therefore, impacts to sensitive natural communities within the Project Site are considered **less than significant with mitigation incorporated**.

c) *Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption or other means?*

Less Than Significant With Mitigation Incorporated. The Project Site contains a total of 0.93 acre of aquatic features potentially subject to federal jurisdiction, including constructed vernal pools (0.18 acre) and depressional seasonal wetlands (0.75 acre). See *subsection b* above for a more detailed description of individual feature classifications. The Proposed Project would not directly fill the created vernal pools and seasonal wetlands. However, Project construction involves implementation of eight culvert crossings, which could result in the discharge of pollutants into surface waters during Project construction. A three-foot buffer delineated by construction exclusion and silt fencing around all avoided aquatic features would be installed, in accordance with the Project Description (**Section 3.0**). In addition, Project design includes linear silt fencing which would be established along the northern perimeter of the Project Site to avoid impacts to Lower Laguna Creek to the north of the Project Site.

If the U.S. Army Corps of Engineers determines that the artificial irrigated seasonal wetland and the two manmade excavated linear ditch features mapped on the Project Site are jurisdictional, and Project development cannot avoid impacting these features, impacts to these features would be considered potentially significant and impacts to wetlands would therefore be considered **less than significant with mitigation incorporated**. Implementation of **Mitigation Measure BIO – 9** would require the City to obtain authorization for the placement of fill within any federally-jurisdictional waters, including compliance with the Corps' no-net-loss of aquatic functions and values policy and would require that the City obtain 401 Water Quality Certification or a waiver from the Central Valley Regional Water Quality Control Board. Compliance with current regulatory standards would ensure that Project development would not have a substantial adverse effect on federally-protected wetlands.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less Than Significant. The Project Site provides low quality habitat for most wildlife species because of the overall lack of vegetation cover and the high levels of disturbed and developed areas. The Project Site is not part of a major wildlife corridor because it does not connect two significant habitats. The Project Site is surrounded by residential development and paved trails and roads, hindering wildlife movement. In addition, Big Horn Boulevard crosses west to east through the southern portion of the Project Site, which acts another barrier to wildlife dispersal. Therefore, impacts from development of the Proposed Project are considered **less than significant**.

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

Less Than Significant With Mitigation Incorporated. Chapter 12.64 of the Sacramento City Code, the Heritage Trees protects Heritage trees during Project construction. The Elk Grove Municipal Code, Chapter 19.12, Tree Preservation and Protection, protects landmark trees and trees of local importance within the City limits. A total of 198 oak trees were inventoried within the Project Site (Foothill Associates 2016b). Seventeen of the 200 trees occur within the City of Sacramento, and of the 17 trees, four trees are considered Heritage trees and protected under the Chapter 12.64 of the Sacramento City Code. These three trees would be avoided during implementation of the Proposed Project, and would therefore not require any special protection. Of the 183 trees within the City of Elk Grove 85 are protected under Chapter 19.12. Within the City of Elk Grove Project development would remove a total of 26 oak trees, which totals 219 inches' diameter breast height (DBH), protected by Chapter 19.12. Implementation of **Mitigation Measure BIO – 7** would require a Tree Permit from the City of Elk Grove prior to the removal of any protected tree species and barriers shall be placed outside of critical root zones for protected trees. A Certified Arborist shall be required for any tree pruning to protect trees and comply with the City of Sacramento and City of Elk Grove Tree preservation and protection codes. Therefore, impacts associated with conflicts to local policies and ordinances are considered **less than significant with mitigation incorporated**.

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?

Less Than Significant Impact. The Project Site is within the Lower Laguna Creek Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area. These two preserves were established to protect wildlife and wetland habitat. The Proposed Project would not conflict with any of the provisions outlined in the Operation and Management Plans for each preserve. Trails and an educational area are permitted uses in the preserves and the Proposed Project would therefore remain in compliance with the associated Operation and Management Plan. Therefore, impacts are considered **less than significant** and no mitigation is required.

4.4.2. Mitigation Measures

Mitigation Measure BIO – 1: A qualified biologist shall conduct botanical surveys within the blooming periods for all special-status plant species within the non-native annual grassland prior to commencement of construction activities. Special-status plant species that shall be surveyed include: bristly sedge (*Carex comosa*), dwarf downingia (*Downingia pusilla*), Ferris' milk-vetch (*Astragalus tener* var. *ferrisiae*), Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*), hogwallow starfish (*Hesperevax caulescens*), and saline clover (*Trifolium hydrophilum*). If none of the special-

status plants are observed then a letter report documenting the result of the survey shall be provided to the City of Elk Grove for their records, and no additional measures are required.

If any of the non-listed special-status plant species listed above are found within the Project Site, they shall be avoided to the extent feasible. The plant locations shall be identified on a map, and a 10-foot buffer shall be established around the plants with high visibility construction fencing. Construction fencing shall remain intact until all Project construction has been completed.

If the special-status plant species cannot be avoided during construction of the Proposed Project, a mitigation plan shall be prepared in consultation with CDFW. At a minimum, the mitigation plan shall include locations where the plants would be transplanted in suitable habitat adjacent to the Project footprint, success criteria, and monitoring activities. The CDFW shall approve the mitigation plan prior to transplantation and commencement of construction activities.

Mitigation Measure BIO – 2:

Twenty-four hours prior to the commencement of construction activities, the Project Site shall be surveyed for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. The Project Site shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred.

Snake exclusion fencing shall be established along the outer edge of work as far south as possible from Lower Laguna Creek.

During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to minimal area necessary to avoid impacts to giant garter snake.

Project-related vehicles will observe a 20-mile-per-hour speed limit within construction areas, except on existing

paved roads where they will adhere to the posted speed limits.

After completion of construction activities, the City shall ensure that any temporary fill and construction debris, has been removed, wherever feasible, and shall restore disturbed areas to pre-Project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-Project conditions.

Mitigation Measure BIO – 3:

A qualified biologist shall conduct a pre-construction take survey no less than 14 days prior to initiation of ground disturbance using the recommended methods described in the "Detection Surveys Section" in Appendix D of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If no burrowing owls or sign of burrowing owls are detected in the vicinity of the Project Site during the pre-construction survey, a letter report documenting survey methods and finds shall be submitted to the City of Sacramento, the City of Elk Grove, and the CDFW, and no further avoidance or minimization measures are recommended.

If burrowing owls are detected, no-construction buffers and timing on page-9 of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) shall be followed unless a qualified biologist verifies through non-invasive methods 1) that the birds have not begun egg laying and incubation, 2) that juveniles from the occupied burrows are capable of independent survival (i.e., foraging independently, or 3) that a reduced buffer is appropriate based on a site-specific evaluation. In addition, high visibility construction fencing shall be established around the buffer zone, if feasible. Buffer dimensions are outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012).

If the buffers specified above are infeasible, then a qualified biologist shall conduct a site evaluation to determine whether impacts can be avoided with implementation of additional measures. If the qualified biologist determines that measures can be established to avoid impacts to burrowing owls, the qualified biologist shall develop a mitigation plan through consultation with the CDFW including, but not limited to, the installation of

visual screens between the nest and construction activities and/or the implementation of biological monitoring during construction activities.

Mitigation Measure BIO – 4: If feasible, any trees anticipated for removal shall be completed outside of the nesting season (September 1 through February 14). The nesting season is from February 15 through August 31.

Prior to the commencement of construction activities during the nesting season for Swanson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol-level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the 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 surveys for nesting Swainson's hawk within 0.25 miles of the Project Site where legally permitted. The qualified biologist shall use binoculars to visually determine whether Swainson's hawk nests occur within the 0.25-mile survey area, if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 miles of the Project Site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the City of Elk Grove and the CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.

If active Swainson's hawk nests are found within 0.25 miles of construction activities, the qualified biologist shall contact the City of Elk Grove and the CDFW within one day following the pre-construction survey to report the findings. For the purposes of this mitigation measure construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing) or other Project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site between February 15 and August 31. Should an active nest be

present within 0.25 miles of construction area, then CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing shall be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. If the qualified biologist determines that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer, then a letter report summarizing the survey results shall be submitted to the City of Elk Grove and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are required.

Mitigation Measure BIO – 5: If feasible, any trees anticipated for removal shall be completed outside of the nesting season (September 1 through February 14). The nesting season for white-tailed kite is from February 15 through August 31.

A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities and tree removal, if anticipated to commence during the nesting season (between February 15 and August 31) for planning purposes. An additional pre-construction survey shall be conducted within 72 hours of commencement of ground-disturbing activities. If the pre-construction survey shows that there is no evidence of active nests, then a letter report shall be submitted to the City of Elk Grove and the CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, an additional pre-construction survey is required.

If any active white-tailed kite nests are identified during the pre-construction survey within the Project Site, a

qualified biologist shall establish 250-foot buffer zone around the nests. The biologist shall mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. No trees anticipated for removal shall be removed until the qualified biologist determines that the nest is no longer occupied. If a 250-foot buffer is not feasible, then the qualified biologist may reduce the buffer through consultation with the CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied. Once it has been determined that the nest is no longer active, then a letter report will be submitted to the City of Elk Grove and the CDFW for their records and no additional measures are recommended.

Mitigation Measure BIO – 6: A qualified biologist shall conduct a pre-construction survey for American badger within 14 days prior to the start of ground disturbance. If no American badgers are observed, then a letter report documenting the results of the survey shall be provided to the City of Elk Grove for their records, and 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 American badgers or their dens are found, additional avoidance measures shall occur including having a qualified biologist conduct a pre-construction survey within 24 hours prior to commencement of construction activities, performing a Worker Awareness Training to all construction workers, and being present during grading activities for the purpose of temporarily halting construction activities until the biologist determines that the badger has left the construction footprint on its own accord.

Mitigation Measure BIO – 7: A City of Elk Grove tree permit shall be obtained prior to the removal of any protected trees. At minimum the City of Elk Grove shall mitigate for the loss of the 219 inches DBH at a 1:1 ratio. The City of Elk Grove shall prepare a tree mitigation plan for review and approval by the City

Arborist. Only the mitigation authorized under an approved mitigation plan shall be used. The plan shall specify where the trees will be planted and how the trees will be monitored and maintained for a minimum of five years.

A chain link or City of Elk Grove-approved barrier shall be installed one-foot outside of the critical root zone of the trees to be retained in order to avoid damage to the trees and their root systems. The critical root zone is defined as a circle with a radius measurement from the trunk of the tree to the tip of its longest limb plus one foot. No grading (grade cut or fills) or trenching shall occur within the critical root zone of trees to be retained with the exception of encroachment areas shown on the final plans. If it is absolutely necessary to install underground utilities within the dripline of the tree, the utility line shall be bored or drilled under the direct supervision of a Certified Arborist.

Any pruning of retained trees shall be supervised by a Certified Arborist and should be completed to the most current ISA standards ("Tree Pruning Guidelines") and America National Standards Institute (ANSI) A300 Standards. Branch and limb pruning shall be limited to that which has been deemed necessary in order to correct a safety hazard, structural defect, crown clearing, or arborist recommended pruning in the tree.

Mitigation Measure BIO – 8: If the artificial irrigated seasonal wetland and the two manmade excavated ditch features are not considered jurisdictional, and are subject to the waste discharge requirements under the Porter-Cologne Water Quality Control Act, the City of Elk Grove shall comply with the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ or the current applicable Water Quality Order, and will abide by all applicable filing, reporting, and waste discharge requirements.

Mitigation Measure BIO – 9: If the Corps determines that the artificial irrigated seasonal wetland and the two manmade excavated ditch features are subject to Federal jurisdiction under Section 404 of the Federal Clean Water Act, or if future Project design modifications result in the placement of fill within

federally-jurisdictional waters, prior to initiation of any activity that would place fill in federally-jurisdictional waters, the City shall obtain authorization for the placement of fill in waters of the U.S. and shall comply with the standards in effect at the time authorization is sought.

If Project development would result in the fill of federally-jurisdictional waters, the City shall also obtain 401 Water Quality Certification or a waiver, as required by the current Central Valley Regional Water Quality Control Board standards.

4.5. Cultural Resources

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

4.5.1. Impact Analysis

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

Less Than Significant With Mitigation Incorporated. Portions of the Project Site are identified as "Sensitive Areas" by Figure 4.11-1 of the City's General Plan EIR (City of Elk Grove 2003e). The Lee/Wightman homestead site is located at the northern edge of the open space area located within the southern tip of the Project Site south of Big Horn Boulevard and east of the area of proposed planting and landscaping area. In addition, preliminary fieldwork conducted on the Project Site has identified several resources related to past agricultural operations, including ditch segments and groves of eucalyptus trees a remnant eucalyptus grove likely dating back to the 1910's, an east/west road segment lined by eucalyptus trees and a fence (Windmiller 2016). In addition, a small segment of the Lee/Wightman Homestead access road remains within the Project Site. These resources are not eligible for listing in the California Register of Historical Resources or the National Historic Register (Windmiller 2016).

CEQA Guidelines Section 15064.5 generally defines historical resources as resources listed in or determined eligible for listing in the California Register of Historical Resources, a resource included in a local register of historic places, or a resource determined to be historically significant.

Project development would involve the construction of a culverted crossing across a portion of the agricultural ditch within the northern area of the Project Site. As this ditch is not considered eligible for listing in the California Register of Historical Resources, the development of the proposed trail crossing would not be considered a significant impact.

The City of Elk Grove may trim and/or remove some or all of the eucalyptus trees within the Project Site as a component of the Proposed Project to prevent threats to public safety. As these resources are not eligible for listing in the California Register of Historical Resources, the development of the proposed trail crossing would not be considered a significant impact.

Portions of the east-west road segment and/or the Lee/Wightman access road segment may be impacted during Project construction. As these resources are not eligible for listing in the California Register of Historical Resources, the development of the proposed trail crossing would not be considered a significant impact.

Several cultural resources have been preliminarily identified within the Project Site. Project development may impact these resources. As these resources are not defined as historical resources under CEQA any impacts to these resources would not be considered significant. However, the potential remains for inadvertent discovery of previously unidentified resources. Therefore, impacts are considered **less than significant with Mitigation Incorporated**.

Compliance with **Mitigation Measure CR – 1** would require construction activities to cease in the event of inadvertent discovery of historical or archaeological resources and would require that the City of Elk Grove Planning Department be immediately contacted for inadvertent discovery of resources associated with Project construction. In the event of inadvertent discovery of historical or archaeological resources, **Mitigation Measure CR – 1** would require coordination with local agency planning resources and the Project archaeologist to assist with the proper treatment of discovered resources.

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

Less Than Significant With Mitigation Incorporated. No known archaeological resources are present within the Project Site. However, portions of the Project Site are identified as "Sensitive Areas" by Figure 4.11-1 of the City's General Plan EIR (City of Elk Grove 2003e). Project-related construction activities are anticipated to require excavation ranging from under one-foot to approximately four-feet in depth related to trail construction. Although currently characterized as open space, areas within both preserves have been subject to previous disturbance related to vernal pool creation construction activities (Laguna Springs Unit 2 Preserve) and flood control facility construction (North Laguna Creek Wildlife Area). Similarly, the non-preserve undeveloped parcel south of Big Horn Boulevard has been subject to past disturbance related to utility facility development (SMUD substation and utility lines). Implementation of proposed trail construction is not anticipated to impact archaeological resources due to the limited depth of excavation and past disturbance within the Project Site. Development of the Proposed Project would also involve the construction of drainage facilities,

and crossing/signalization improvements that may require excavations of up the ten feet in depth. As with the anticipated trail construction excavations, excavations for drainage improvements and signalization would occur within areas subject to past disturbance and impacts to archaeological resources are not anticipated.

Although the Project Site has been subject to previous disturbance and impacts to archaeological resources are not anticipated, grading and excavation activities associated with construction of the Proposed Project would have the potential to unearth or otherwise expose previously unidentified archaeological resources. Therefore, impacts are considered **less than significant with mitigation incorporated**.

Per Assembly Bill 52 (AB 52), as of July 1, 2015 Public Resources Code Sections 21080.3.1 and 21080.3 require public agencies to consult with the Native American Heritage Commission (NAHC) and Native American tribes for the purpose of mitigating impacts to tribal cultural resources. The process is described in part below:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section (Public Resources Code Section 2150.1(d)).

Compliance with **Mitigation Measure CR – 2** would require construction activities to cease in the event of inadvertent discovery of archaeological resources and would require that the City of Elk Grove Planning Department be immediately contacted for inadvertent discovery of resources associated with Project construction within the City of Elk Grove and that the City of Sacramento Planning Division be contacted for inadvertent discovery of archaeology resources associated with Project construction within the City of Sacramento. In the event of inadvertent discovery of archaeological resources, **Mitigation Measure CR – 2** would require coordination with local agency planning resources and the Project archaeologist to assist with the proper treatment of discovered resources.

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

Less Than Significant With Mitigation Incorporated. No paleontological resources are known to be present within the Project Site. However, portions of the Project Site are identified as "Sensitive Areas" by Figure 4.11-1 of the City's General Plan EIR (City of Elk Grove 2003e), and grading and excavation activities associated with construction of the Proposed Project would have the potential to unearth or otherwise expose previously unidentified paleontological resources. Therefore, impacts are considered **less than significant with mitigation incorporated**.

Compliance with **Mitigation Measure CR – 3** would require construction activities to cease in the event of inadvertent discovery of paleontological resources and would require that the City of Elk Grove Planning Department be contacted for inadvertent discovery of resources associated with Project construction within the City of Elk Grove and that the City of Sacramento Planning Division be contacted for inadvertent discovery of resources associated with Project construction within the City of Sacramento. In the advent of inadvertent discovery of paleontological resources, **Mitigation Measure CR – 3** would require coordination with local agency planning resources and the Project archaeologist to assist with the proper treatment of discovered resources.

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

Less Than Significant With Mitigation Incorporated. No known grave sites or burial grounds are known to be present within the Project Site. Portions of the Project Site are identified as "Sensitive Areas" by Figure 4.11-1 of the City's General Plan EIR (City of Elk Grove 2003e). However, based on the February 6, 2016 Records Search for the Project Site and surrounding ¼-mile radius, no cultural resources were identified (Windmiller 2016). Similarly, based on tribal consultation efforts conducted during preparation of the Project Archaeological Survey Report and Historic Property Survey Report, no tribal resources have been identified within the Project Site (Windmiller 2016). Grading and excavation activities associated with construction of the Proposed Project may have the potential to inadvertently unearth or otherwise expose previously unidentified human remains or burial grounds. Therefore, impacts are considered **less than significant with mitigation incorporated**.

Compliance with **Mitigation Measure CR – 3** would require coordination with the Sacramento County Coroner in compliance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), as well as the Native American Heritage Commission who will notify and appoint a Most Likely Descendent (MLD), thereby reducing potential impacts to less than significant levels.

4.5.2. Mitigation Measures

Mitigation Measure CR – 1: Should buried historical or archaeological deposits or artifacts be inadvertently exposed during the course of construction activities, work shall immediately cease within a 100-foot radius of the find and the City of Elk Grove Development Services Department shall be immediately contacted. A qualified archaeologist shall be retained to document the find, assess its significance, and recommend further treatment. Work on the Project Site shall not resume until the archaeologist has had a reasonable time to conduct an examination and implement mitigation measures deemed appropriate and necessary by the City of Elk Grove in consultation with the

qualified archaeologist to reduce impacts to a less than significant level.

Mitigation Measure CR – 2: If evidence of a paleontological site is uncovered during grading or other construction activities, work shall be halted within 100 feet of the find and the City of Elk Grove Planning Department shall be contacted immediately. A qualified paleontologist shall be retained to conduct an on-site evaluation and provide recommendations for removal and/or preservation. Work on the Project Site shall not resume until the paleontologist has had a reasonable time to conduct an examination and implement mitigation measures deemed appropriate and necessary by the City of Elk Grove in consultation with the qualified paleontologist to reduce impacts to a less than significant level.

Mitigation Measure CR – 3: In the event that any human remains or any associated funerary objects are encountered during Project construction, all work shall cease within the vicinity of the discovery and the City of Elk Grove Development Services Department shall be immediately contacted. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the Sacramento County coroner shall be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects. Construction activities in the immediate vicinity will not resume until a notice-to-proceed is issued.

4.6. *Geology and Soils*

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

4.6.1. Impact Analysis

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?

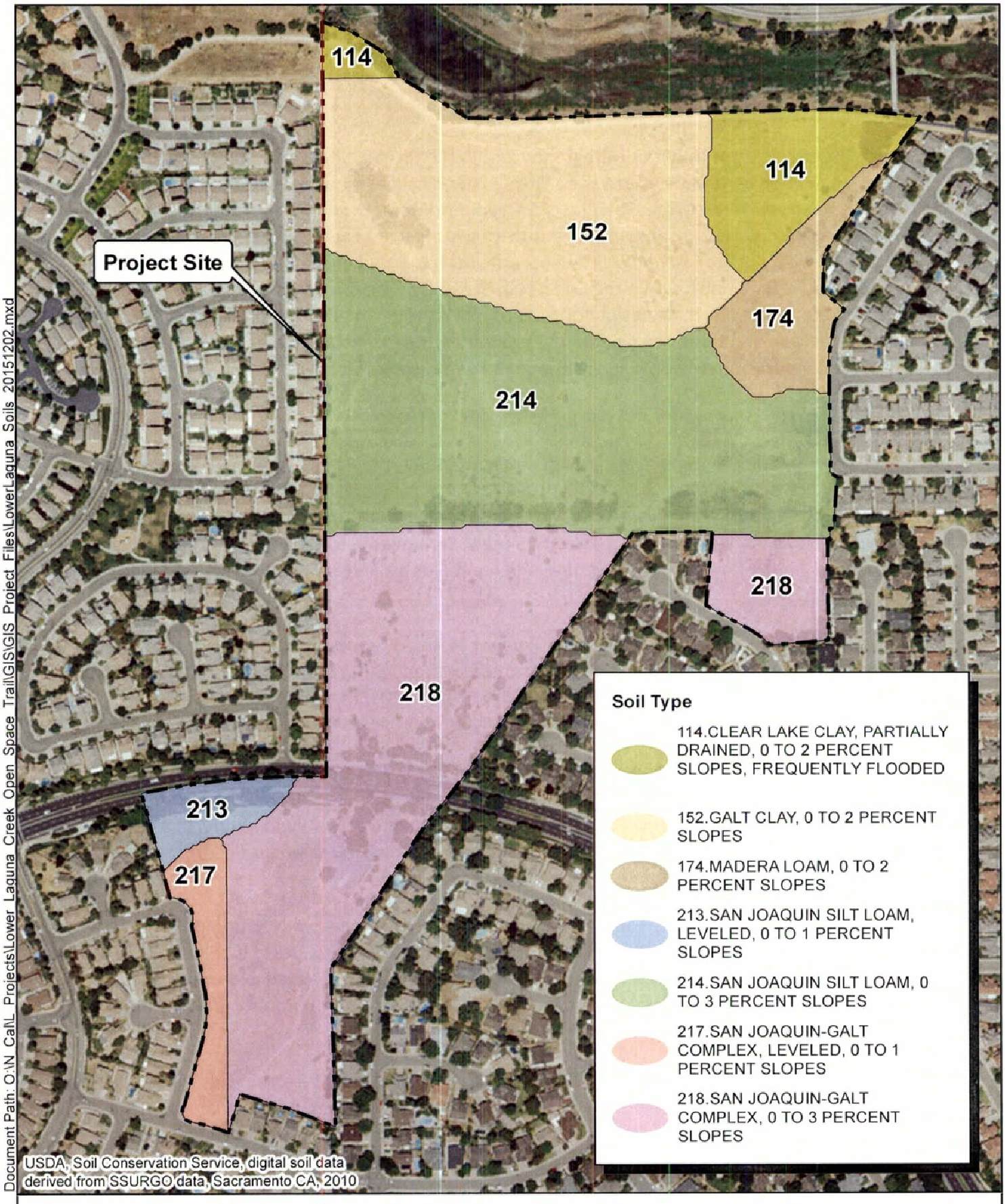
Less Than Significant Impact. Geological literature indicates that no major active faults transect Sacramento County (Sacramento County 2011). Therefore, impacts are considered **less than significant** and no mitigation is required.

II. Strong seismic ground shaking?

Less Than Significant Impact. The *Elk Grove General Plan EIR* and geologic maps of the City display a very low potential for seismic ground shaking in Elk Grove. Additionally, the City of Elk Grove is not located within an active or potentially active fault or Alquist-Priolo earthquake hazard zone (City of Elk Grove EIR 2003b). The Sacramento 2035 General Plan EIR identifies the City of Sacramento as having no known active faults and Sacramento's potential for seismic ground shaking is one of the lowest in the State (Ascent Environmental 2014). Therefore, the Proposed Project is not expected to experience strong ground shaking, and impacts are considered **less than significant**.

III. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a loss of soil strength related to seismic ground shaking and is most commonly associated with soil deposits characterized by water-saturated, well sorted, fine grain sands and silts. The Project Site contains Clear Lake Clay, Partially Drained, 0 to 2 Percent Slopes, Frequently Flooded; Galt Clay, 0 to 2 Percent Slopes; Madera Loam, 0 to 2 Percent Slopes; San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes; San Joaquin Silt Loam, 0 to 3 Percent Slopes; San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes; and San Joaquin-Galt Complex, 0 to 3 Percent Slopes soils (**Figure 4.6-1**). The potential for liquefaction within the Project Site is low. Based on the soils, groundwater, and ground shaking conditions within the Project Site the potential for liquefaction is considered low (City of Elk Grove EIR 2003b). Areas that are susceptible to liquefaction within the City of Sacramento are the Central City, Pocket, and North and South Natomas (Ascent Environmental 2014). The Project Site is located in the southern portion of the City of Sacramento and is not located within an area identified as susceptible to liquefaction. Therefore, impacts are considered **less than significant** and no mitigation is required.



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LOWER LAGUNA CREEK OPEN SPACE TRAIL SOILS

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 175 350
Feet
1 inch = 350 feet

Drawn By: MUB
Date: 02/05/2016

FIGURE 4.6-1

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IV. Landslides?

Less Than Significant Impact. Topography within the Project Site is relatively flat with very little rise in elevation across the entire site. The elevation ranges from approximately 20 to 30 feet above mean sea level (MSL). The City of Sacramento is relatively flat and slop stability and landslides do no present substantial hazards to people and property (Ascent Environmental 2014). The City of Elk Grove has little potential for the occurrence of landslides because the maximum surface slope within the City of Elk Grove is approximately three percent (City of Elk Grove 2003e). Engineering design for the Proposed Project maintains the natural topography, where feasible and there are no steep slopes within the Project vicinity. Therefore, impacts associated with landslides are considered **less than significant**.

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

Less Than Significant Impact. As shown on **Figure 4.6-1**, the Proposed Project is characterized by seven soil map units including: Clear Lake Clay, Partially Drained, 0 to 2 Percent Slopes, Frequently Flooded; Galt Clay, 0 to 2 Percent Slopes; Madera Loam, 0 to 2 Percent Slopes; San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes; San Joaquin Silt Loam, 0 to 3 Percent Slopes; San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes; and San Joaquin-Galt Complex, 0 to 3 Percent Slopes.

Clear Lake Clay, Partially Drained, 0 to 2 Percent Slopes, Frequently Flooded is a poorly drained soil that is frequently flooded with a high runoff located within basin floors. The parent material for this soil is alluvium (USDA, NRCS, 1974 and 2015a). The hydric soils list for Sacramento County identifies this soil unit as hydric (USDA, NRCS 2015b).

Galt Clay, 0 to 2 Percent Slopes consists of alluvium derived from granite and is located on terraces from 10 to 150 feet above MSL. This soil unit is moderately well-drained with a high runoff class and is considered a soil that supports Farmland of Statewide Importance (USDA, NRCS 1974 and 2015a). The hydric soils list for Sacramento County identifies this soil type as hydric (USDA, NRCS 2015b).

Madera Loam, 0 to 2 Percent Slopes is a moderately well-drained soil located on terraces and in drainageways from 20 to 250 feet above MSL. The parent material for this soil unit is alluvium derived from granite. The soil unit has a high runoff class and low available water storage (USDA, NRCS 1974 and 2015a). The hydric soils list for Sacramento County identifies this soil type as hydric (USDA, NRCS 2015b).

San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes is found on terraces and depressions from 20 to 500 feet above MSL. The soil unit is moderately well-drained with a high runoff class and low available water storage profile. The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 1974 and 2015a). The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

San Joaquin Silt Loam, 0 to 3 Percent Slopes is found on terraces and depressions from 50 to 500 feet above MSL. The soil unit is moderately well drained with a low available water storage profile and low capacity to transmit water. The parent material for this soil until is alluvium derived from granite (USDA, NRCS 1974 and 2015a).

San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45%), Galt soils (40%), and other minor soil components (15%). This soil unit is moderately well-drained with a very low available water storage profile and very high runoff class. The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 1974 and 2015a). The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

San Joaquin-Galt Complex, 0 to 3 Percent Slopes is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45%), Galt soils (40%), and other minor soil components (15%). This soil unit is moderately well-drained with a high runoff class and low available water storage profile. The parent material for this soil unit is alluvium derived from granite (USDA, NRCS 1974 and 2015a). The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

The proposed Lower Laguna Creek Open Space Trail would be constructed as a paved trail (4,752 feet of paved trail and 1,320 feet of optional paved trail) with a minimum width of 10 feet for the path with 2 foot shoulders and would follow existing informal trails where feasible. The educational area located in the southwest corner of the Laguna Springs Unit 2 Open Space Preserve would include several stabilized decomposed granite trails and a parking area.

Several Project components would prevent soil loss and erosion during and following Project construction. Caltrans' Standard Best Management Practices (BMPs), Site Monitoring Procedures, and the *Lower Laguna Creek Erosion Control Work Plan* (Erosion Control Work Plan) (**Appendix B**) will be applied during construction of the Proposed Project. BMPs within the Erosion Control Work Plan include the following specific measures for avoiding erosion and soil loss:

- Staging areas will include reinforced temporary construction entrances and protected concrete washout and materials storage facilities as necessary. Additionally, staging areas are located a minimum of 43 feet from the nearest wetland;
- Following the tree and shrub removal any disturbed areas will be stabilized with temporary hydraulic mulch;
- During construction, temporary hydraulic mulch, check dams, and fiber rolls will be placed in advance of predicted rain events in areas under construction;
- As portions of the trail are completed permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls may be placed along the trail alignment to minimize erosion; and

- Following the completion of all grading and paving all equipment and material storage will be removed and staging areas will be repaired to resemble preconstruction conditions.

State regulations pertaining to the management of erosion and sedimentation target the protection surface water resources from the effects of land development (such as turbidity caused by sedimentation), measures include regulations and standards to also reduce the potential for erosion and soil loss. Such regulations include, but are not limited to, the National Pollutant Discharge Elimination System (NPDES) program for management of construction and municipal storm water runoff, which is part of the federal Clean Water Act and the State Porter-Cologne Water Quality Act and is implemented at the State and local level through issuance of permits and preparation of site-specific Storm Water Pollution Prevention Plans (SWPPP).

Site disturbance related to clearing, grading, paving, and excavation activities associated with implementation of the Proposed Project would have the potential to increase erosion within the Project Site. The Laguna Springs Unit 2 Open Space Preserve is monitored annually with general inspections, and one of the monitoring objectives is erosion. If significant erosion is identified within the preserve the City of Elk Grove and Preserve Manager will be contacted and the erosion will be identified and solutions developed to prevent further erosion issues (Marcus H. Bole & Associates 2011). Erosion in the rest of the Project Site as well as the Laguna Springs Until 2 Open Space Preserve would be managed through State, federal, and local regulations and policies.

Project development would be required to comply with the standards established by the *City of Elk Grove's Stormwater Quality Improvement Plan* (SQIP) and the City of Sacramento's Stormwater Quality Improvement Program. Each of these SQIP's contain a construction element that requires the reduction of sediments in construction sites. City of Sacramento staff inspect and enforce erosion, sediment and pollution control requirements in accordance with the City Ordinances (Section 15.88.250). The City of Elk Grove and City of Sacramento's area-wide MS4 permit, Order R5-2015-0023 (NPDES No. CAS082597) manages stormwater runoff within the Cities. Compliance with the NPDES would ensure that the areas surrounding the Project Site would not result in erosion or soil loss as a result of long term trail use and unauthorized use in surrounding lands adjacent to the designated trail.

Grading activities would also be subject to the requirements of the California Regional Water Quality Control Board for filing a Notice of Intent (NOI) to comply with the Construction General Permit for projects over an acre or for projects that are part of a larger common plan of development that is over one acre. NOI applicants are required to develop a SWPPP specifying individual BMPs as well as scheduling for regular monitoring and maintenance of said BMPs for effectiveness.

Construction-related soil disturbance within the Project Site would exceed one acre and would have the potential to result in impacts to water quality resulting from pollutant discharge, including soil sediments. Therefore, preparation of a SWPPP would be required to comply with the NPDES Construction General Permit administered by the State Water Resources Control

Board. The SWPPP shall identify structural and non-structural BMPs to control and prevent erosion and topsoil loss. Existing enforceable regulations pertaining to the Proposed Project exist addressing potential impacts related to erosion. Impacts are therefore considered **less than significant**.

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

Less Than Significant Impact. Lateral spreading, a phenomenon associated with liquefaction, subsidence, or other geologic or soils conditions that could create unstable subsurface conditions that could affect Project features, is not a significant hazard for the Project Site. Impacts related to unstable soils including lateral spreading or collapse resulting from seismic-induced ground shaking are considered less than significant due to the distance from an active fault, the low potential for ground shaking hazards, and soil conditions in the area. Subsidence is generally characterized by the gradual settling of the earth's surface with little or no horizontal motion, and typically occurs in formations overlaying an aquifer subject to a gradual and consistently decreasing withdraw of groundwater. Subsidence is an issue in the delta regions of Sacramento County but not in the Project vicinity. Impacts are therefore considered **less than significant** and no mitigation is required.

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

Less Than Significant Impact. The Project Site is located in an area of expansive soils. Proposed trail design, as consistent with the *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan*, would ensure that the trail would not experience substantial damage from soil expansion by using Hot Mix Asphalt (HMA) or stabilized Decomposed Granite on the trail with engineered base and subbase as needed. Therefore, impacts from expansive soils are considered **less than significant**.

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

No Impact. Project development would not involve septic tank installation or the use of alternative wastewater disposal systems. Therefore, **no impact** related to the use of septic tanks would occur as a result of Project development.

4.6.2. Mitigation Measures

No mitigation is warranted.

4.7. *Greenhouse Gas Emissions*

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

4.7.1. Impact Analysis

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

Less Than Significant Impact. Greenhouse gas (GHG) emissions negatively affect the environment through contributing, on a cumulative basis, to global climate change. Atmospheric concentration of GHGs determines the intensity of climate change, with current levels already leading to increases in global temperatures, sea level rise, severe weather, and other environmental impacts. From a CEQA perspective, GHG impacts to global climate change are inherently cumulative (SMAQMD 2015). Due to the inherently cumulative nature of impacts associated with global climate change, a Project's GHG emissions contribution is typically quantified and analyzed on an annual operational basis.

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 CO_2 and other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O), from mobile sources and construction equipment operation. The Proposed Project's short-term construction-related emissions were estimated using the Roadway Construction Emissions Model (**Appendix C**), a spreadsheet-based model specifically designed to estimate emissions associated with construction of roadway facilities and other linear projects (KD Anderson & Associates, Inc. 2016). The model quantifies direct GHG emissions from construction, which are expressed in tons per project of CO_2 equivalent units of measure ($MTCO_2e$), based on the global warming potential of the individual pollutants. The term "CO_2 Equivalent" (CO_2e) refers to a weighted composite of these compounds, expressed as the equivalent amount of CO_2. Project-related emissions of nitrous oxide (N_2O)

and methane (CH_4) were estimated based on methods from the California Air Resources Board and U.S. Environmental Protection Agency (EPA). A weighted composite CO_2 value was then calculated based on methods from the EPA (KD Anderson & Associates, Inc. 2016). The estimated increase in GHG emissions associated with construction of the Proposed Project is 530.22 MT/yr. CO_2e as summarized below in **Table 4.7-1**.

TABLE 4.7-1 — PROJECT ESTIMATED ANNUAL CONSTRUCTION-RELATED GHG EMISSIONS

	CO_2 emissions ($MTCO_2e$)
Total Construction GHG Emissions	530.22

Source: KD Anderson & Associates, Inc. 2016 (**Appendix C**).

As presented in **Table 4.7-1**, annual construction-related GHG emissions associated with development of the Proposed Project are estimated to total 530.22 MT/yr. CO_2e. The SMAQMD Board of Directors adopted GHG thresholds on October 23, 2014, via Resolution AQMD2014-028. The adopted annual threshold of 1,100 $MTCO_2e$ is applicable to the construction phase, as well as the operation phase for land development and construction projects in Sacramento County.

The Proposed Project's construction-related emissions would be substantially below the SMAQMD thresholds of significance for construction phase GHG emissions. Therefore, the Proposed Project's construction-related GHG emissions are not expected to result in a significant impact.

Operational GHG emissions would be minimal. Development of the Proposed Project is not anticipated to result in a substantial increase in vehicle trips, nor would proposed improvements significantly modify the existing operations within the Project Site in a way that would result in GHGs from operational emissions. By design, Project development is intended to increase pedestrian and bicycle accessibility to existing communities, schools and other existing trails and further encourage non-motorized travel within the Project area. The proposed parking lot would accommodate approximately ten parking spaces for vehicular travel associated with educational area events. However, these educational area events would be sporadic and are not anticipated to result frequent or high volume parking needs and vehicular travel. Connectivity provided by Project development would facilitate accessibility to proposed events to pedestrian and bicycle (non-vehicular) modes of transportation. Development of the Proposed Project would not involve mobile, stationary, or area sources and new operational GHG emissions would therefore not occur. 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 by the region. Therefore, the Proposed Project's contribution to global climate change through GHG emission are considered **less than significant**.

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

No Impact. Implementation of the Proposed Project would not conflict with or obstruct implementation of any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. By design, proposed improvements include consistency with the goals identified by the *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan*. The proposed Lower Laguna Creek Open Space Trail would also be consistent with circulation policies outlined in the City of Elk Grove and City of Sacramento General Plans. The Proposed Project aligns with Policy CI-1 of the *City of Elk Grove General Plan* which promotes all modes of travel including bicycle and pedestrian to coordinate with efforts to reduce air pollution (City of Elk Grove 2003c). The Proposed Project also aligns with Policy M 1.2.1 of the *Mobility Element* which promotes multimodel choices, including walking and bicycling, to reduce air pollution and greenhouse gas emissions (City of Sacramento 2015b). Construction and operation of the Proposed Project would be implemented consistent with applicable regulatory standards and requirements, including consistency with all applicable SMAQMD rules and thresholds. Therefore, **no impact** would result from development of the Proposed Project.

4.7.2. Mitigation Measures

No mitigation is warranted.

4.8. *Hazards and Hazardous Materials*

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

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

4.8.1. Impact Analysis

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

Less Than Significant Impact. The Proposed Project would involve the construction of a multi-use Class I Open Space Trail and educational area, and therefore would not involve the routine transport, use or disposal of hazardous materials.

City of Elk Grove

There are no sites within the City of Elk Grove segment of the Project Site that are listed in the *State of California Hazardous Waste and Substances Site List* (Cortese List) (City of Elk Grove 2003e). The closest California Department of Toxic Substances Control *EnviroStor Database* hazardous site to the Project Site is the Laguna Creek High School Addition (3820002), approximately 0.5 miles from the Project Site. The Laguna Creek High School Addition has a cleanup status of "No Action Required" as of March 16, 2001 (CDTSC 2015).

City of Sacramento

The City of Sacramento contains several sites that have been historically contaminated and sites that are known to be contaminated that are currently being cleaned up. The majority of hazardous sites in Sacramento County are sites primarily automobile related including areas with amenities such as gas stations and repair shops (City of Sacramento 2015c). None of these sites are within a 1-mile radius of the Project Site.

Proposed Project

The Proposed Project would involve construction activities such as grading, trail crossings over aquatic features, and one mid-block roadway crossing. Some of these activities would involve the use of heavy equipment, which would contain fuels, oils, solvents, and various other possible contaminants. The transport, storage, and disposal of any hazardous materials used would be subject to federal, State, and local regulations. The Sacramento County Environmental Management Division (SCEMD) is the Certified Unified Program Agency (CUPA)

for the incorporated and unincorporated areas within Sacramento County. As the CUPA, the SCEMD regulates the use, storage, and disposal of hazardous materials and is available to respond to hazardous materials complaints or emergencies, if any, during construction.

The SCEMD administers the Hazardous Materials Business Plan (HMBP) Program to protect public health and the environment and groundwater from risks or adverse effects associated with the storage of hazardous materials. Businesses that handle/store 55 gallons of hazardous liquids, 500 pounds of hazardous solids, and 200 cubic feet (at standard temperature and pressure) of compressed gases must complete a HMBP for the safe storage and use of chemicals (City of Sacramento 2015c).

The handling, use, and storage of hazardous materials during construction would be required to be compliant with SCEMD standards. Therefore, impacts related to violation of hazards and hazardous material requirements are considered **less than significant** and no mitigation is required.

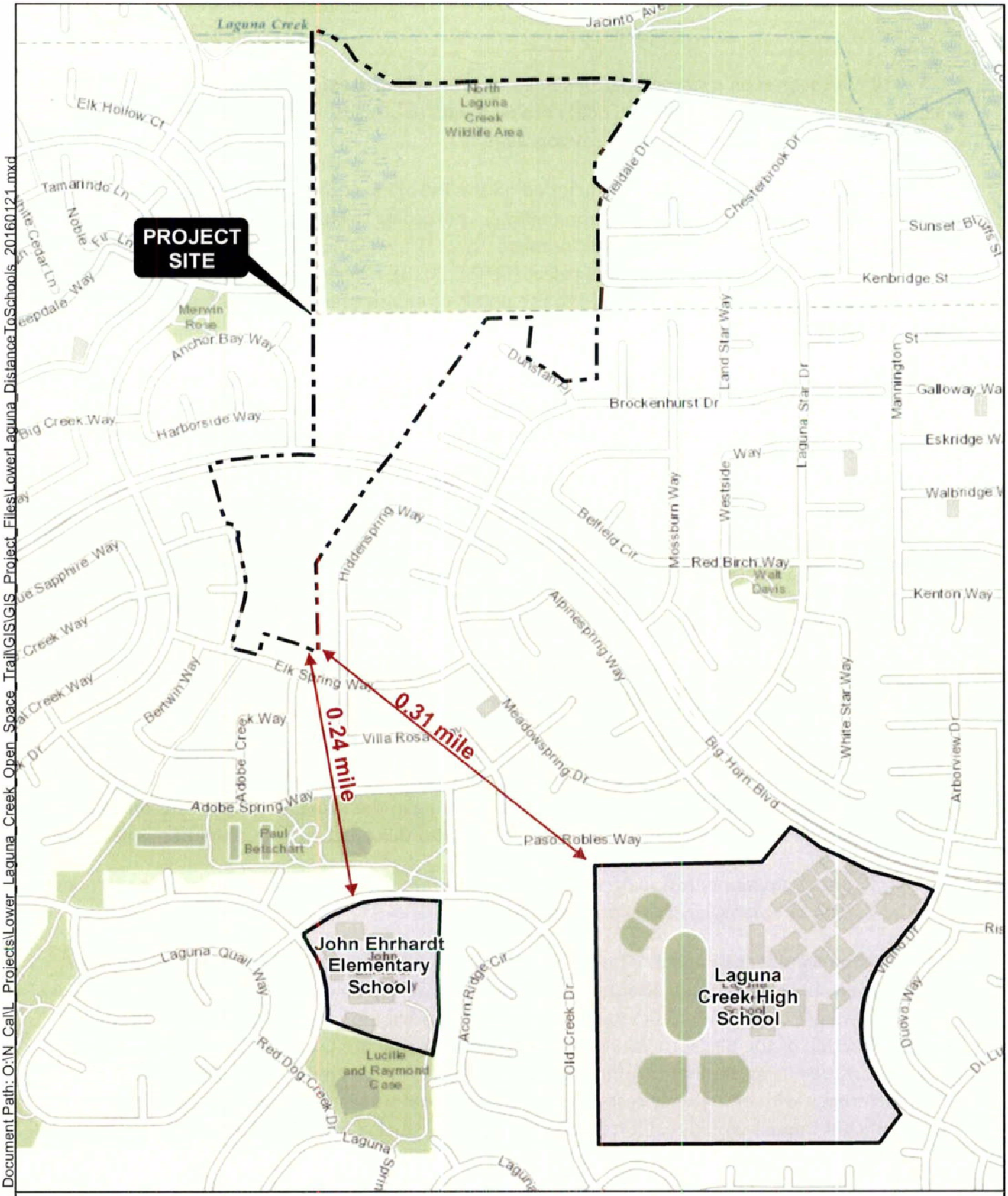
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. During trail and educational area construction there is the possibility of upset or accident conditions involving the release of hazardous materials into the environment involving contaminants from machinery. However, if an accident should occur the SCEMD is available to respond to an emergency relating to hazardous materials during construction. The City of Sacramento Fire Department is the second agency that would respond to an accident, through the Special Operations Division. This division operates a Hazardous Materials Program in partnership with the Sacramento County Environmental Management Divisions. The program provides 24-hour response for the County of Sacramento as well as the City of Elk Grove (City of Sacramento 2015c). The handling, use, and storage of hazardous materials during construction would be required to be compliant with SCEMD standards. Therefore, impacts are considered **less than significant** and no mitigation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are no schools located within the Project Site. Laguna Creek High School is located approximately 0.31 miles southeast from the Project Site and John Ehrhardt Elementary School is located approximately 0.24 miles south from the edge of the Project Site (**Figure 4.8-1**). John Ehrhardt Elementary School is therefore within one-quarter mile of the Project Site. Operations of the Proposed Project would not generate hazardous air emissions or handle acutely hazardous substances. However, Project construction would involve the use of heavy equipment, which would contain fuels, oils, solvents, and various other possible contaminants. The transport, storage, and disposal of any hazardous materials used for the Proposed Project would be subject to federal, State, and local regulations reducing the

probability of hazardous materials threatening the school. Additionally, construction would be short-term in duration commencing in the Spring of 2017 and lasting only 6 months, and students would be on summer vacation during much of the construction period and not present at John Ehrhardt Elementary School. Therefore, impacts from hazardous emissions and hazardous materials within one-quarter mile of an existing school are considered **less than significant**.



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LOWER LAGUNA CREEK OPEN SPACE TRAIL DISTANCE FROM SCHOOLS

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 325 650
Feet
1 in = 650 feet

Drawn By: CCH
Date: 01/21/2016

FIGURE 4.8-1

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

No Impact. The Project Site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the California Department of Toxic Substances Control *Envirostor Database*, there are no known hazardous sites within the immediate vicinity of the Proposed Project (CDTSC 2015). Therefore, the Proposed Project would not create a significant hazard to the public or environment and **no impact** would result from Project implementation.

e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The County of Sacramento operates five airports: Sacramento International, Sacramento Executive, Sacramento Mather, Franklin Field, and McClellan Airport (Sacramento County 2014). The Proposed Project is not located within an airport land use plan area (SACOG 2015). The Proposed Project is not within two miles of any airport and would not result in a safety hazard for people residing or working in the Project vicinity. Therefore, **no impact** would result from development of the Proposed Project.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The closest private airstrip to the Project Site is Mosier Airport, over five miles to the east. The Project Site is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the Project vicinity. Therefore, **no impact** would result from development of the Proposed Project and no mitigation is required.

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

Less Than Significant Impact. The Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because the Proposed Project would occur within the two open space preserves. During the construction of the Big Horn Boulevard mid-block crossing the City of Elk Grove would allow lane closures using standard traffic control systems to ensure that there would be no interference with emergency response plans or evacuation plans. Therefore, **less than significant impact** would result from development of the Proposed Project and no mitigation is required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less Than Significant Impact. Wildland fires are those fires that pose a threat to the more rural areas of the County. Grass fires and peat fires are the two main types of wildland fires of concern in Sacramento County. Grass fires are an annual threat in the unincorporated area of the County, especially recreational areas such as the American River Parkway (Sacramento County 2011). According to the California Fire Hazard Severity Zone Map for Sacramento County, the Project Site is located outside of a State Responsibility Area. The Project Site is located within an incorporated Local Responsibility Area (LRA) and there is no fire severity designation indicated on the Fire Hazard Severity Zone Map for the Project Site (Cal Fire 2007). Additionally, the *City of Elk Grove General Plan, Safety Element* states that there are no known fire hazards within the City of Elk Grove that require implementation of specific General Plan Policies (City of Elk Grove 2003d). Therefore, impacts from the Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, and impacts are considered **less than significant**.

4.8.2. Mitigation Measures

No mitigation measures warranted.

4.9. *Hydrology and Water Quality*

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

4.9.1. Impact Analysis

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

Less Than Significant Impact. Implementation of the Proposed Project would result in the development of a 1.15-mile Class I multi-use bikeway (4,752 feet of paved trail and 1,320 feet of optional paving south of Laguna Creek) and educational area within the City of Elk Grove and City of Sacramento, California. The Proposed Project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers. As described in detail within **Section 3.4**, additional Project amenities would include landscape improvements, trail nodes and signage, a pedestrian crossing at Big Horn Boulevard, and an educational area with a parking lot. The educational area would provide opportunities for school field trips and other educational activities and educational events with an amphitheater and stage, and several small gathering areas.

Development of the Proposed Project would require approximately eight culvert crossings at existing ditches and other locations within the Project Site.

Construction-Related Impacts

Any discharge of pollutants to waters of the U.S. is unlawful unless the discharge is in compliance with the National Pollutant Discharge Elimination System permit. The Statewide General Construction Permit and the NDPES General Construction Activity Stormwater Permit

(General Permit) are applicable to requiring the preparation and implementation of a Storm Water Pollution Prevention Plan that specifies erosion and sediment control construction and post-construction Best Management Practices (BMPs) to reduce or eliminate construction-related and operational impacts on receiving water quality. The SWPPP identifies structural and non-structural BMPs to uphold water quality and waste discharge requirements.

Chapter 16.44 of the City of Elk Grove Code establishes the Land Grading and Erosion Control Ordinance to minimize water quality degradation. A Grading and Erosion Control Permit is required to grade, fill, excavate, store, or dispose of 350 cubic yards or more of soil or earthen material, or to clear and grub one acre or greater of land within the City of Elk Grove. A project is required to develop and implement plans prior to grading activities that include measures to minimize erosion, sediment, and dust created by construction and maintenance activities.

Chapter 15.88 of the City of Sacramento Code establishes the Grading, Erosion, and Sediment Control Chapter to regulate grading on property within the City of Sacramento limits to avoid pollution of watercourses with nutrients, sediments, and other materials generated or caused by surface water runoff, to comply with the City of Sacramento's National Pollution Discharge Eliminate System Permit Number CA0082597, issued by the California Regional Water Quality Control Board. The Ordinance states that an Erosion and Sediment Control Plan shall be prepared for all projects to control surface runoff and erosion and to retain sediment on a particular site and prevent pollution of site runoff. The Erosion and Sediment Control Plan applies both during and after construction of the Project, until all final improvements and permanent structures are complete. The Ordnance applies to projects where the volume of material graded is more than 50 cubic yards.

Implementation, monitoring and maintenance of BMPs required to comply with existing enforceable City Ordinances, combined with compliance with State and federal regulations relevant to maintaining water quality objectives, would ensure that Project development would not result in substantial erosion or siltation violating water quality standards and discharge requirements. In addition, Project design features would establish a minimum three-foot buffer maintained around all avoided aquatic features in the vicinity of the proposed trail improvements during construction. Temporary construction exclusion fencing and a silt fence would be installed to further define these limits and exclude construction equipment and activities near the avoided aquatic features, which would help maintain water quality standards. Proposed construction protocols, combined with existing enforceable provisions addressing erosion applicable to the Proposed Project would ensure that current water quality standards are maintained. Construction-related impacts related to Project development are therefore considered **less than significant**.

Operational Impacts

Ongoing use of the proposed Lower Laguna Creek Open Space Trail and educational area would have the potential, through time to result in areas prone to erosion within the designated trail alignment. In addition, it is likely that trail users would use areas adjacent to and outside of the designated trail alignment.

Ongoing use by trail users would have the potential to result in areas within the unpaved trail alignment, as well as areas off of the trail alignment, that may exhibit erosion and sediment loss. The Laguna Springs Unit 2 Open Space Preserve is monitored annually with general inspections, and one of the components evaluated on an annual basis is erosion. If significant erosion is identified within the Preserve, the City of Elk Grove and Preserve Manager will be contacted and the erosion will be identified and solutions developed to prevent further erosion issues (Marcus H. Bole & Associates 2011). However, there is no erosion and sediment loss inspection required for the North Laguna Creek Wildlife Area and the southernmost Project parcel. Compliance with the City of Elk Grove and City of Sacramento area-wide MS4 permit (NPDES No. CAs082597) would ensure that the areas surrounding that the Project Site would not result in erosion or soil loss as a result of long term trail use and unauthorized use in surrounding lands adjacent to the designated trail alignment. Therefore, potential impacts associated with trail operation are considered **less than significant**.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Less Than Significant Impact. Project development would not result in an increased demand for or use of groundwater. Development of the Proposed Project would result in a multi-use Open Space Trail and educational area, as well as a parking lot. The educational area would have stabilized decomposed granite paths and permeable pavers within the amphitheater allowing for effective groundwater recharge. A 3,400 square foot paved parking area with approximately ten parking spaces would be added to the south of the educational area, but would not be large enough to substantially interfere with groundwater recharge. Therefore, 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, and impacts are considered **less than significant.**

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less Than Significant Impact. Development of the Proposed Project would include approximately eight culvert crossings over ditches and other areas within the Project Site. The Project Site consists of open space areas with pre-existing drainage patterns that flow to onsite basins. The Proposed Project has been designed to replicate all pre-Project hydrology and hydraulics. The educational area would have pervious materials and the stormwater from this area would recharge into the groundwater table. The increase in impervious surface area for the trail is minimal (4,752 feet of paved trail and 1,320 feet of optional paved trail) and it is anticipated that stormwater runoff would not appreciably decrease the onsite basin's capacity

or functionality. There would be no substantial erosion onsite or offsite since Project design would replicate pre-Project hydrology. Therefore, impacts to drainage from development of the Proposed Project are considered **less than significant**.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less Than Significant Impact. Development of the Proposed Project would include approximately eight culvert crossings over ditches and other areas within the Project Site. The Project Site is an open space area with pre-existing drainage patterns that flow to onsite basins. The Proposed Project has been designed to replicate all pre-Project hydrology and hydraulics. The educational area would have pervious materials and the stormwater from this area would recharge into the groundwater table. The increase in impervious surface area for the trail is minimal (4,752 feet of paved trail and 1,320 feet of optional paved trail) and it is anticipated that stormwater runoff would not appreciably decrease the onsite basin's capacity or functionality. There would be no flooding onsite or offsite since Project design would replicate pre-Project hydrology. Therefore, impacts to drainage from development of the Proposed Project are considered **less than significant**.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. Construction and operations of the Proposed Project would not substantially contribute to runoff water that would exceed existing stormwater drainage patterns. The subdivision standards within the City of Elk Grove and City of Sacramento require a secondary overhead release should storm drain systems fail. There is an existing easement at Compass Court for this secondary overhead release. The Proposed Project would replicate pre-Project hydrology at this release point ensuring its proper function. Therefore, impacts associated with Project development are considered **less than significant**.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Construction of the Proposed Project would be implemented through mechanical work. Construction activities have the potential disturb the existing topography and would therefore have the potential to result in erosion and sediment loss. Long-term use of the educational area and optional unpaved section of the proposed Lower Laguna Creek Open Space Trail would occur on earthen surfaces, with further potential for contributing to erosion and sediment loss that could impact water quality.

Project construction-related design features would establish a minimum three-foot buffer maintained around all avoided aquatic features in the vicinity of the proposed trail improvements during construction. Caltrans' Standard Best Management Practices (BMPs), Site Monitoring Procedures, and the *Lower Laguna Creek Erosion Control Work Plan* (Erosion

Control Work Plan) (**Appendix B**) would be applied during Project construction. The BMPs detailed within the Erosion Control Work Plan include the following specific measures for avoiding aquatic impacts:

- Within 50 feet of avoided wetlands, high-visibility silt fencing shall be used as ESA fencing to minimize the transportation of water or air-borne sediment into the wetlands;

- Staging areas will include reinforced temporary construction entrances and protected concrete washout and materials storage facilities as necessary. Additionally, staging areas are located a minimum of 43 feet from the nearest wetland;

- Following the tree and shrub removal any disturbed areas will be stabilized with temporary hydraulic mulch;

- During construction, temporary hydraulic mulch, check dams, and fiber rolls will be placed in advance of predicted rain events in areas under construction;

- As portions of the trail are completed permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls may be placed along the trail alignment to minimize erosion;

- Following the completion of all grading and paving all equipment and material storage will be removed and staging areas will be repaired to resemble preconstruction conditions;

- Permanent erosion control comprised of hydroseed, hydromulch, and bio-degradable fiber rolls will be applied to the Project Site. Native seed mix will be used for all revegetation; and

- Following final stabilization temporary BMPs and the temporary fence will be removed.

Implementation, monitoring, and maintenance of BMPs required to comply with existing enforceable City of Elk Grove and City of Sacramento Municipal Code requirements, construction erosion BMPs detailed within the Erosion Control Work Plan combined with compliance with State and federal regulations relevant to maintaining water quality objectives, would ensure that Project development would not result in substantial erosion or siltation violating water quality standards and discharge requirements. Construction-related impacts related to Project development are therefore considered **less than significant**.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. As shown on **Figure 4.9-1**, the Proposed Project is not located within a FEMA-designated 100-year flood hazard area. Additionally, 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) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. As shown on **Figure 4.9-1**, the Project Site is not located within a FEMA-designated 100-year flood hazard area. Therefore, no structures would be placed within a FEMA-designated 100-year flood hazard area that would impede or redirect flood flows and Project development would result in **no impact** to impeding or redirecting flood flows.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of a failure of a levee or dam?

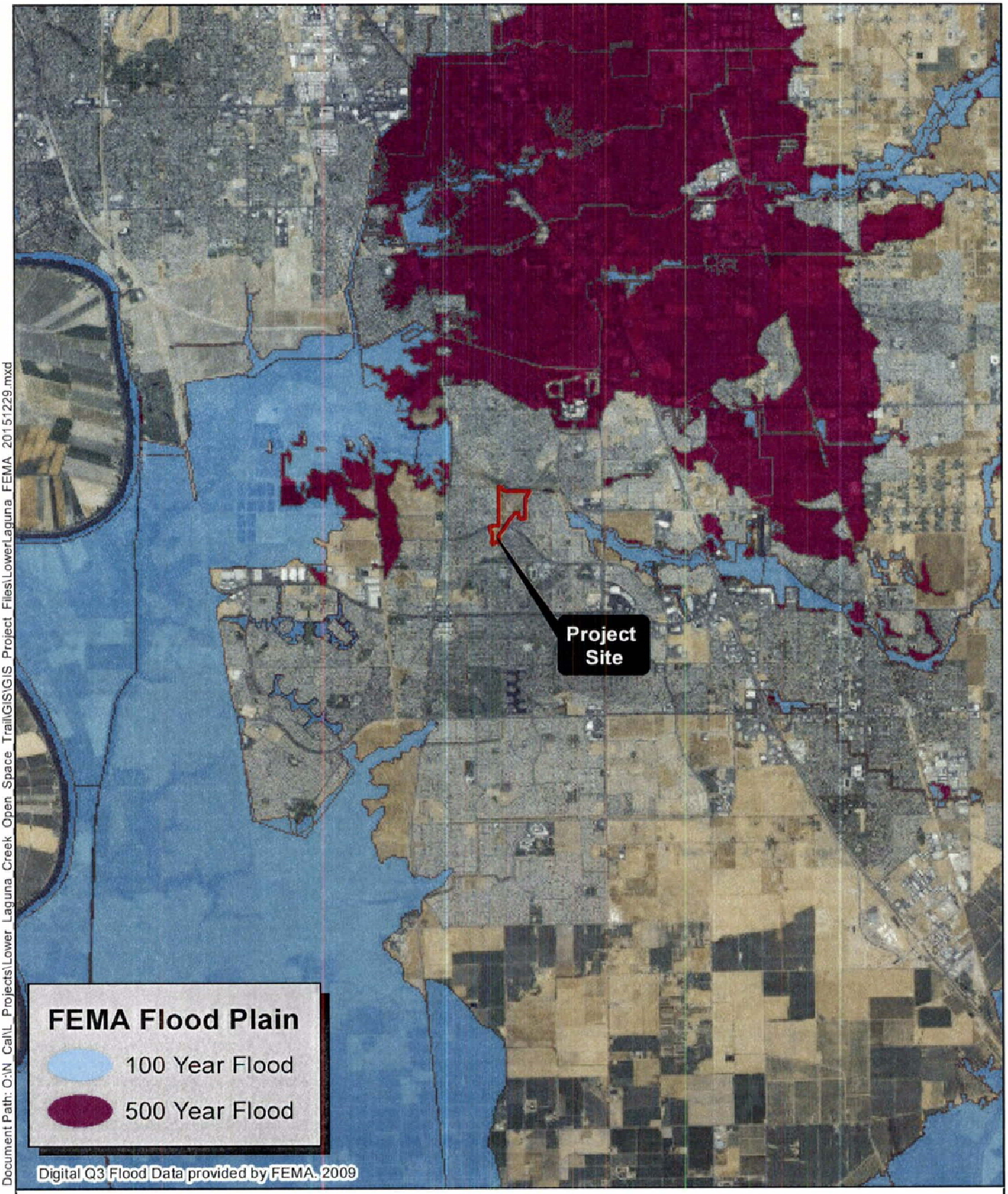
No Impact. The Project Site is not located within a FEMA-designated 100-year flood hazard area or within the vicinity of a dam or levee. Therefore, Project development would not expose people or structures to a significant risk of loss, injury, or death, involving flooding and **no impact** would result from development of the Proposed Project. No mitigation is required.

j) Inundation by seiche, tsunami or mudflow?

No Impact. The Project Site is not located near a coastal area 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.

4.9.2. Mitigation Measures

No mitigation is warranted.



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LOWER LAGUNA CREEK OPEN SPACE TRAIL FEMA FLOODPLAIN LOCATION

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE

N

0 3500 7000
FEET
1 inch = 7,000 feet

Drawn By: MUB
Date: 12/29/2015

Figure 4.9-1

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4.10. Land Use and Planning

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

4.10.1. Impact Analysis

a) Physically divide an established community?

No Impact. The Project Site is located within the Laguna Springs Unit 2 Open Space Preserve, North Laguna Creek Wildlife Area, and a small parcel to the south of the Laguna Springs Preserve (APN: 119-1270-046). Each of the two preserves contain no development and the third parcel has no development and is adjacent to a small Sacramento Municipal Utility District station. Development of the proposed Lower Laguna Creek Open Space Trail and educational area would be accessible to pedestrians and bicyclists from the existing Ryland and Laguna Creek Walking trails. The Proposed Project is designed to provide connectivity for pedestrian and bicycle travel within adjacent communities. Development of the proposed trail alignment and interpretive educational area would therefore not divide an established community, and **no impact** related to the division of an established community would result from development of the Proposed Project.

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

Less Than Significant Impact. There are several policies within the *City of Elk Grove General Plan* that relate to parks, trails, and open space. The underlying goal of the *City of Elk Grove's General Plan, Parks, Trails, and Open Space Element* is to maintain open space while increasing the number of trails in the City of Elk Grove, and linking these trails to developed portions of Elk Grove (City of Elk Grove 2003c). Policy PTO-1 of the General Plan states:

Policy PTO-1: The City of Elk Grove supports the development, maintenance, and enhancement of parks and trails serving a variety of needs at the neighborhood, area, and citywide level. The City may seek to accomplish the provision of parks and trails in corporation with the Cosumnes Community Services District.

PTO-1-Action 1: *As part of the review of development projects, ensure that public parks and trails are provided which meet the City's and CCSD's criteria and which implement the CCSD/City Parks Mater Plan and Bicycle, Pedestrian, and Trail Master Plan.*

The Proposed Project would provide an additional trail within the City of Elk Grove and the trail is outlined within the BPTMP. Additionally, PTO-7 of the General Plan states that "*the trails system in Elk Grove should provide for connectivity, so that all trails are linked to the extent possible for greater use as recreational and travel routes*" (City of Elk Grove 2003c). Development of the Proposed Project would provide connections to several other trails within the Project vicinity. The southernmost parcel of the Proposed Project (Assessor's Parcel Number: 119-1270-046) contains a SMUD station in the northeastern portion of the parcel. The Proposed Project would have no conflict with any SMUD safety or maintenance policies. Additionally, the proposed Open Space Trail has obtained an easement to be within the SMUD corridor near the existing power lines throughout the Project Site. The trail alignment and interpretive educational area therefore, would not conflict with any of the City of Elk Grove plans or policies no impact would result from development of the Proposed Project.

There also several policies within the *City of Sacramento General Plan* that relate to trails. Goal ERC 2.4 of the *Education, Recreation, and Culture Element* states:

<u>Goal ERC 2.4 Rivers, Creeks, and Natural Resource Areas</u>. Provide positive recreational experiences and enjoyment of nature through the development, maintenance, patrol, and preservation of the rivers, creeks, and natural resource areas, while maximizing the use of these areas through partnerships with other agencies.

Policy ERC 2.4.3 Connections to Other Trails. The City shall maintain existing and pursue new connects to local, regional, and state trails.

The Proposed Project would provide additional recreation and enjoyment of open space while establishing a new connection to local trails. The trail alignment would therefore not conflict with any City of Sacramento plans or policies. Therefore, impacts associated with development of the Proposed Project are considered **less than significant**.

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

No Impact. There are no habitat conservation plans or natural community conservation plans applicable to the City of Elk Grove. The City of Sacramento is a participant in the South Sacramento Habitat Conservation Plan (SSHCP). The SSHCP is a regional approach to addressing habitat conservation, urban development, and agricultural protection in South Sacramento County (Sacrament County 2010). The SSHCP is still being finalized and will allow landowners "incidental take" of protected species in return for conservation commitments. However, the SSHCP is not yet finalized and therefore, the Proposed Project would therefore not conflict with a habitat conservation plan. Therefore, no **impact** would result from development of the Proposed Project.

4.10.2. Mitigation Measures

No mitigation is warranted.

4.11. Mineral Resources

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

4.11.1. Impact Analysis

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

No Impact. Mineral resources in Sacramento County include natural gas, sand, petroleum, gold, gravel, clay, peat, lignite, and topsoil. The City of Elk Grove and the section of the Project Site in the City of Sacramento are not mapped by Sacramento County as regional or Statewide important aggregate resource areas (Sacramento County 2011). The City of Elk Grove is covered by the MRZ-3 classification from SMARA Special Report 156, Mineral Land Classification: Portland Cement Concrete Grade Aggregate in the Sacramento-Fairfield Production-Consumption Region (1988). The MRZ-3 classification is for areas "containing aggregate deposits, the significance of which cannot be evaluated from available data" (City of Elk Grove EIR 2003b). Therefore, **no impact** to mineral resources of regional or Statewide importance is anticipated resulting from development of the Proposed Project.

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

No Impact. As stated in the *City of Sacramento General Plan, Environmental Resources Element* Goal ER 5.1 provides the protection of mineral resources:

<u>Goal ER 5.1 Conservation and Compatibility</u>. Conserve existing and newly discovered aggregate deposits for environmentally and community-sensitive extraction and reclamation, while ensuring compatibility between extraction activity and surrounding uses.

Policy ER 5.1.1 Mineral Resource Zones. The City shall protect lands designated MRZ-2, as mapped by the California Geological Survey, and continue to regulate activities consistent with the Surface Mining and Reclamation Act, mineral land classification information, and the California Environmental Quality Act.

The Project Site is not within a designated MRZ-2 area within the City of Sacramento. The City of Elk Grove contains no mineral resources, other than the Special Report 156 designations, and therefore has no mineral resource plan designations within the General Plan. Therefore, **no impact** to mineral resources is anticipated from development of the Proposed Project.

4.11.2. Mitigation Measures

No mitigation is warranted.

4.12. Noise

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

4.12.1. Impact Analysis

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies?

Less Than Significant Impact. Development of the Proposed Project would require construction activity over an anticipated six-month timeframe. Construction of the Proposed

Project would generate construction-related noise, primarily from heavy equipment and construction worker vehicles.

The *City of Sacramento General Plan, Environmental Constraints Element* has established Goals and Policies relating to evaluating noise impacts due to projects (City of Sacramento 2015d). The underlying theme in the Noise Element of the General Plan is to protect the health and welfare of the community from exposure to excessive noise by requiring noise mitigation for all development that exceeds specific noise levels. These Noise Element standards for maximum allowable noise exposure are presented in the General Plan. The Exterior Noise Compatibility Standard for playgrounds and neighborhood parks is 70 dBA, which is accepted as the highest level of noise exposure in those designated areas. The City of Sacramento Municipal Code Section 8.86.060 contains the noise standards for the City of Sacramento. The Municipal Code states that the exterior noise standard from 7:00 A.M. to 10:00 P.M. is 55 dBA and from 10:00 P.M. to 7:00 A.M. is 50 dBA. The Ordinance further states that internal combustion engines in use on construction sites must be equipped with "suitable exhaust and intake silencers that are in good working order" (Section 8.86.080(D)). Construction activities associated with the Proposed Project would include grading, paving, and construction of proposed trail amenities. The construction noise would vary from house to house adjacent to the Project area as equipment progresses along the 1.15-mile trail alignment. Residences near the Project Site would be able to hear construction equipment noise. Compliance with the City of Sacramento noise ordinance standards, would require that construction equipment would be outfitted with muffling devices and construction would only occur during the day when ambient noise levels are higher and residents are less likely to be engaged in activities that require quiet, such as sleep.

The trail segment located in the City of Elk Grove must adhere to the *City of Elk Grove, General Plan, Noise Element*. The Noise Element establishes noise standards for maximum allowable noise exposure. The Non-Transportation Noise Standard in playgrounds and neighborhood parks is 70 Ldn/CNEL, db. The City of Elk Grove Municipal Code Section 6.32.100 (E) contains specific requirements for construction activities. City Code Section 6.32.100(E) states that noise sources related to construction activities are exempt from the provisions of noise codes if all activities occur between the hours of 6:00 A.M. and 8:00 P.M. on weekdays (Monday through Friday), and the hours of 7:00 A.M. and 8:00 P.M. on Saturday and Sunday.

The existing noise environment of the Proposed Project is influenced by residential and roadway noise, because the Project Site is surrounded by residential development and roadways. Any additional Project-related noise within the Project Site would result from construction-related activities. Construction noise, however, would be temporary and short-term by nature. Project development would be required to comply with all applicable municipal codes, including those governing noise. Therefore, all Project construction would be required to adhere to activities occurring between 7:00 A.M. and 8:00 P.M., internal combustion engines in use on construction sites must be equipped with "suitable exhaust and intake silencers that are in good working order" and construction activities must comply with the 55dBA noise standard. Impacts are considered **less than significant**.

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

Less Than Significant Impact. Construction of the Proposed Project is not anticipated to generate excessive groundborne vibration or noise levels. Construction activities, however, may result in some level of groundborne vibration. The majority of work on the trail alignment would be conducted by construction crews with mechanical labor. Project construction equipment would be temporarily used to construct the educational area and trail alignment and excessive groundborne vibration is not anticipated. Therefore, potential vibration-related impacts associated with construction of the Proposed Project are considered **less than significant.**

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

No Impact. Long-term operational use would include use by pedestrians and bicyclists along the Lower Laguna Creek Open Space Trail and people using the educational area. There are several informal trails existing within the Project Site that are currently used by pedestrians. Operation of the Proposed Project would generate passive recreational noise and noise from natural resource education. No special events or other loud recreational land uses are proposed within the Project Site. The location of the educational area is adjacent to Big Horn Boulevard, which generates a substantial amount of roadway noise. The ambient noise associated with the educational area is not expected to exceed the noise levels from the roadway. Ambient noise levels within the Project vicinity are currently influenced by pedestrian travel through the Project Site. Special events resulting in substantial noise are not anticipated for the Project Site. Therefore, **no impact** would result from development of the Proposed Project.

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

Less Than Significant. The primary source of temporary increased noise levels due to development of the Proposed Project would be construction noise. Construction noise would be temporary and intermittent and is subject to the noise standards specified by the City of Elk Grove Municipal Code Section 6.32.100 (E) as applicable to construction activities. As provided within the City of Sacramento ordinances all construction equipment would be outfitted with muffling devices and construction would only occur in specified hours to reduce impacts to sensitive receptors. Therefore, impacts are considered **less than significant**.

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

No Impact. The Proposed Project is not located within an airport land use plan area or within two miles of a public airport or public use airport. Therefore, people working on the Project

and residing in the Project vicinity would not be exposed to excessive noise levels. **No impact** would result from development of the Proposed Project.

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

No Impact. The closest private airstrip to the Project Site is Mosier Airport, over five miles to the east. Therefore, there are no private airstrips within the vicinity of the Project Site and people working in the Project Site would not be exposed to any excess noise levels. **No impact** would result from development of the Proposed Project.

4.12.2. Mitigation Measures

No mitigation is warranted.

4.13. Population and Housing

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

4.13.1. Impact Analysis

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)?

No Impact. Development of the Proposed Project would involve the construction of a combined Class I bikeway and multi-use trail and educational area, connecting the existing Ryland and Laguna Creek Trail systems and would not involve any residential development or employment-generating land 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.

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

No Impact. The Proposed Project is located within the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area and would not displace any existing housing units. **No impact** would result from development of the Proposed Project.

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

No Impact. The Proposed Project is located within the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area and would not displace any people. **No impact** would result from development of the Proposed Project.

4.13.2. Mitigation Measures

No mitigation is warranted.

4.14. Public Services

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☒
b) Police protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other public facilities?	☐	☐	☐	☒

4.14.1. Impact Analysis

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

a) Fire protection?

No Impact. The Proposed Project is served by the Cosumnes Community Service District Fire Department (CCSDFD) in the City of Elk Grove and the Sacramento Fire Department (SFD) in the City of Sacramento.

City of Elk Grove

There are currently eight stations operated by CCSDFD and the closest CCSDFD fire station to the Project Site is Fire Station 74 located at 6501 Laguna Park Drive. The *City of Elk Grove General Plan, Safety Element* states that *"there are no known fire hazards in Elk Grove that require the implementation of specific policies in the General Plan"* (City of Elk Grove 2003d). The General Plan also has safety policies to ensure efficient movement of police and firefighting equipment and safe evacuation of residents, and the City of Elk Grove cooperates with the CCSDFD to reduce fire hazards, assist in fire suppression, and promote fire safety. The *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* requires that all bicycle and pedestrian trails be at minimum 10 feet of paved trail, which is consistent with Cosumnes Community

Service District fire standards, so that the trails can double as a fire road (City of Elk Grove 2014).

City of Sacramento

The SFD provides fire protection services to the entire City of Sacramento and some small unincorporated areas of Sacramento County. The responsibilities of the fire department include responding to fire, medical emergencies, hazardous materials, technical and water rescues. The SFD operates 24 fire stations (9 in the southern portions of the City of Sacramento) and deploys 24 engine companies, 8 truck companies, 13 Advanced Life Support (ALS) ambulances, and a rescue company (SFD 2015). The Project Site is served by Station 57, 7927 East Parkway, and Station 7 (6500 Wyndham Drive). The *City of Sacramento General Plan, Public Health and Safety Element* PHS 1.1 and 1.2 provides that adequate staffing levels for police and fire are important for the long-term health, safety, and well-being the community.

Proposed Project

Development of the proposed Lower Laguna Creek Open Space Trail would not result in increased population and residential structures, and a subsequent need for additional fire protection facilities. It is therefore anticipated that existing fire protection facilities in the City of Sacramento and the City of Elk Grove would be able to provide fire protection services for the proposed Open Space Trail within each City, and acceptable service ratios, response times, and performance objectives would not be impacted. Therefore, **no impact** related to fire protection services would result from development of the Proposed Project.

b) Police protection?

No Impact. Police protection services within the vicinity of the proposed Lower Laguna Creek Open Space Trail are provided by the Elk Grove Police Department and the Sacramento Police Department.

City of Elk Grove

The Elk Grove Police Department has 131 sworn officers and 77 civilian employees who provide law enforcement and policing services to the City of Elk Grove. In addition, the *City of Elk Grove General Plan, Safety Element* contains policies relating to police protection. Under SA-29 the City shall *"regularly monitor and review the level of police staffing provided in Elk Grove, and ensure that sufficient staffing and resources are available to serve local needs"* (City of Elk Grove 2003d). This policy ensures adequate police protection in the City as it expands. Trail safety would be provided by informal monitoring of trail users and security would be facilitated through the design of trail system elements and enforcement by the Elk Grove Police Department (City of Elk Grove 2014).

City of Sacramento

The Sacramento Police Department has four command districts and the Project Site is located within the South Command district, serving Southwest District 4 and south District 5. The department has a total of 723 sworn officers and the South Command district contains the

police headquarters known as the Public Safety Center (Sacramento Police Department 2014). Additionally, the *City of Sacramento General Plan, Public Health and Safety Element* contains policies relating to police protection. Under Policy PHS 1.1.1 the City will maintain a Police Master Plan that will address staffing needs and service goals within the City, and under Policy PHS 1.1.2 the City will "*strive to achieve optimal response times and adequate safety throughout the City*" (City of Sacramento 2015c).

The *Sacramento County Bikeway Master Plan* provides a list of recommendations to ensure the safety of bicycle facilities. The list includes the following: maintain adequate recording and response mechanisms for reported safety problems; provide regular police patrols to the extent needed and/or possible; respond to accident investigations; manage vegetation so corridors are visually unobstructed; provide adequate lighting at tunnels, undercrossings, and overcrossings; provide mileage markers at half-mile increments; place benches and other path amenities at locations with good visual surveillance; and create a "Path Watch Program" with local residents (Fehr & Peers, Inc. 2011). These safety recommendations were also adopted by the City of Elk BPTMP (City of Elk Grove 2014).

Proposed Project

The proposed Lower Laguna Creek Open Space Trail would not involve residential development and would not result in increased population. The City of Sacramento and City of Elk Grove police departments would jointly provide police protection services for the Proposed Project. Recommendations from the *Sacramento County Bikeway Master Plan* would help to ensure safety on the Open Space Trail. Additionally, the associated General Plans contain policies that update police protection services within the surrounding growing communities. Therefore, **no impact** related to the provision of police protection services would result from development of the Proposed Project.

c) Schools?

No Impact. The Proposed Project would involve the construction of a multi-use Open Space Trail and interpretive educational area within the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area. The Project Site is located in the Elk Grove Unified School District and the Sacramento City Unified School District. The proposed Lower Laguna Creek Open Space Trail would provide a connection route to the John Ehrhardt Elementary School, Marion Mix Elementary School, and Laguna Creek High School in the City of Elk Grove. The Proposed Project would not involve residential development and would not result in increased population. Therefore, **no impact** related to existing school facilities would result from Project development.

d) Parks?

No Impact. Development of the Proposed Project would not involve residential development or employment-generating land uses and therefore would not result in increased population. Implementation of the Proposed Project is expected to provide increased recreational use and

transportation opportunities for local pedestrians and bicyclists. Therefore, **no impact** would result from development of the Proposed Project.

e) Other public facilities?

No Impact. The Proposed Project would not involve residential development and would not result in increased population; therefore, **no impact** related to other public facilities such as hospitals or libraries would result from Project development.

4.14.2. Mitigation Measures

No mitigation is warranted.

4.15. Recreation

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
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?	☐	☐	☐	☒
b) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☒	☐	☐

4.15.1. Impact Analysis

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

No Impact. Development of the Proposed Project would result in the construction of recreational facilities for public access/use and would not increase the use of other recreational facilities or parks such that substantial physical deterioration would occur or be accelerated. Therefore, **no impact** would result from development of the Proposed Project.

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

Less Than Significant With Mitigation Incorporated. As discussed throughout this document, construction of the Proposed Project would have the potential to result in adverse physical effects on the environment related to **Aesthetics**, **Air Quality**, **Biological Resources**, and **Cultural Resources**. However, mitigation measures are proposed which would reduce all potentially significant effects resulting from implementation of the Proposed Project to less than significant levels; therefore, impacts are considered **less than significant with mitigation incorporated**.

4.15.2. Mitigation Measures

Mitigation measures are proposed within this document relevant to **Aesthetics**, **Air Quality**, **Biological Resources**, and **Cultural Resources**. Individual mitigation measures can be found within individual resource-related sections within the document.

4.16. Transportation / Traffic

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☒
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒

4.16.1. Impact Analysis

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

No Impact. Development of the Proposed Project would result in development of a multi-use Open Space Trail and interpretive educational area. The proposed parking lot would accommodate approximately ten parking spaces for vehicular travel associated with educational area events. However, these educational area events would be sporadic and are

not anticipated to result frequent or high volume parking needs and vehicular travel. Connectivity provided by Project development would facilitate accessibility to proposed events to pedestrian and bicycle (non-vehicular) modes of transportation.

City of Elk Grove

Within the City of Elk Grove roadways with motor vehicles are the primary form of transportation with limited existing bicycle and pedestrian facilities. Bicycle and pedestrian transportation is approximately 2.6 percent of all work related trips and 4.6 percent of all non-work trips made by residents and employees in suburban areas. The majority of bike paths within the City are Class II bikeways on existing streets or highways (City of Elk Grove 2003e). The Proposed Project aligns with *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* because the Project follows the guidelines of the Master Plan and Promotes alternative forms of transportation. The Proposed Project is also consistent with the City of Elk Grove circulation policies supporting alternative transportation. Particularly Policy CI-5, which encourages the use of transportation alternatives to reduce the use of personal motor vehicles (City of Elk Grove 2003b).

Off-street parking for the Open Space Trail would be provided in the proposed parking lot adjacent to the educational area, consistent with General Plan Policy PTO-10, which states:

***PTO-10-Action 1**: Develop standards for and locations of potential trailhead locations, including sufficient space for the off-street parking of equestrian trailers and vehicles.*

The proposed parking lot would provide parking for trail users and people visiting the educational area. The parking area would additionally accommodate buses for school trips to the educational area providing safe off-street parking. City Ordinance 23.58.050 (a) provides the City's off-street parking requirements for different land use classifications provided in Table 23.58-2. The number of parking spaces required for a bicycle and pedestrian trail is not specified in the table. Uses that are not listed in Table 23.58-2 shall have the required number of parking spaces determined by the Planning Director based on common functional, product, or compatibility characteristics and activities. The City of Elk Grove Planning Department has approved the parking area as adequate parking for the Proposed Project.

City of Sacramento

The underlying theme of the *City of Sacramento General Plan, Mobility Element* is to develop efficient multi-model transportation networks while minimizing impacts to the environment and neighborhoods. The Proposed Project aligns with the City's mobility policies especially Policy M 1.2.2 that promotes development of integrated multi-modal transportation and Policy M 1.2.4 which promotes multimodal access to corridors, schools, parks, and recreation (City of Sacramento 2015b). The Proposed Project would provide additional bicycle and pedestrian routes within the City while also connecting existing bikeways, implementing multi modal access consistent with City General Plan policies.

Proposed Project

The Proposed Project would provide additional routes for pedestrians and bicyclists within the City of Elk Grove and City of Sacramento, while connecting existing bikeways. The Proposed Project is therefore consistent with all plans, codes, and policies within the City of Elk Grove and City of Sacramento and therefore **no impact** would result from development of the Proposed Project.

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The Proposed Project would cross one road, Big Horn Boulevard. Big Horn Boulevard bisects the Project Site and is an east-west four lane collector that extends from Franklin Boulevard to Elk Grove Boulevard. Along Big Horn Boulevard there are curbs, gutters, sidewalks, and a Class II bike lane. The posted speed limit on Big Horn Boulevard is 45 miles per hour (mph). The Proposed Project would construct a conventional mid-block crossing across Big Horn Boulevard. Based on review of several alternative crossings a conventional mid-block crossing was chosen due to the high vehicle speed on Big Horn Boulevard, the horizontal curve on Big Horn Boulevard, the dense roadside and median vegetation, and the proximity to the existing traffic signal at the Brockenhurst Drive intersection. The mid-block crossing would not have a substantial effect on congestion management within the City of Elk Grove because level of service standards and travel demand measures would not be significantly impacted by the mid-block crossing at Big Horn Boulevard.

Construction of the mid-block crossing would involve temporary lane closures using standard traffic control systems. Lane closures may be limited to certain days or hours of operation depending on traffic demand. Construction would be short-term and temporary in nature and would therefore not conflict with any applicable congestion management plans. Therefore, impacts associated with development of the Proposed Project are considered **less than significant**.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The Project Site is not located within an area subject to an Airport Land Use Compatibility Plan. Therefore, **no impact** would result from development of the Proposed Project and no mitigation is required.

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

Less Than Significant Impact. Development of the Proposed Project would require a single road crossing at Big Horn Boulevard. The conventional mid-block crossing would allow trail users to safely access the entire trail. The conventional mid-block crossing was chosen due to the high vehicle speed on Big Horn Boulevard, the horizontal curve on Big Horn Boulevard, the dense roadside and median vegetation, and the proximity to the existing traffic signal at the

Brockenhurst Drive intersection. The mid-block crossing would follow the *California Manual on Uniform Traffic Control Devices* (CA MUTCD 2014), to ensure that the design features would not increase hazards. Additionally, the proposed Open Space Trail design would consist of a 10-foot trail paved with standard two-foot shoulders. The trail width would allow for compatible trail use of bicyclists and pedestrians. Impacts are therefore considered **less than significant**.

e) Result in inadequate emergency access?

No Impact. The *City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan* requires that all bicycle and pedestrian trails be at minimum 10-feet of paved trail, which is consistent with CCSDFD fire standards, so that the trails can double as a fire road (City of Elk Grove 2014). Emergency access would also be available along multiple points of the proposed trail alignment. The following streets would allow emergency access to the proposed trail alignment: Murrell Street, Elk Springs Way, Big Horn Boulevard, and Fieldale Drive. The proposed parking area would provide parking for cars and buses as well as a turnaround for fire trucks, allowing additional emergency access. Project development would not involve temporary road or lane closures during construction and no emergency access routes would be affected by the Project. Therefore, **no impact** would result from development of the Proposed Project.

f) Result in inadequate parking capacity?

No Impact. Off-street parking for the Lower Laguna Creek Open Space Trail would be provided in the proposed parking lot adjacent to the educational area, consistent with General Plan Policy PTO-10, which states:

***PTO-10-Action 1**: Develop standards for and locations of potential trailhead locations, including sufficient space for the off-street parking of equestrian trailers and vehicles.*

The proposed parking lot would provide parking for trail users and people visiting the educational area. The parking area would additionally accommodate buses for school trips to the educational area providing safe off-street parking. City Municipal Code 23.58.050 (a) provides the City's off-street parking requirements for different land use classifications provided in Table 23.58-2. The number of parking spaces required for a bicycle and pedestrian trail is not specified in the table. Uses that are not listed in Table 23.58-2 shall have the required number of parking spaces determined by the Planning Director based on common functional, product, or compatibility characteristics and activities. The City of Elk Grove Planning Department has approved the parking area as adequate parking for the Proposed Project.

If there is not adequate funding to construct the off-street parking lot, existing street parking would be utilized to access the trail alignment and educational area. There is existing off street parking adjacent to the vacant southernmost parcel of the Project Site available on Murrell Street. The parking on Murrell Street would provide parking spaces for approximately 30 vehicles. On-street parking would therefore provide adequate parking for the trail alignment

and educational area if the funds are not available to build the parking lot. Therefore, **no impact** would result from development of the Proposed Project.

4.16.2. Mitigation Measures

No mitigation is warranted.

4.17. Utilities and Service Systems

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

4.17.1. Impact Analysis

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

No Impact. Development of the Proposed Project would result in a multi-use Open Space Trail and interpretive educational area within the City of Elk Grove and the City of Sacramento. The Proposed Project would not include the construction of any wastewater-generating uses. **No impact** would result from the development of the Proposed Project.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. Development of the Proposed Project would not increase the population within the Project vicinity. Development of 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.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The Proposed Project would integrate construction stormwater management best management practices as part of the City of Elk Grove Municipal Code Chapter 15.12 Stormwater Management and Discharge Control (Section 15.12.200 and Section 15.12.220) and through the Land Grading and Erosion Control Chapter (Chapter 16.44) which establishes administrative procedures, minimum standards for review, and implementation and enforcement procedures for erosion and sedimentation. The Proposed Project would also integrate construction stormwater management principles as part of the City of Sacramento Chapter (Section 13.16.130). The subdivision standards within the City of Elk Grove and City of Sacramento require a secondary overhead release should storm drain systems fail. There is an existing easement at Compass Court for this secondary overhead release. The Proposed Project would replicate pre-Project hydrology at this release point. The construction of new stormwater facilities or the expansion of existing facilities would not be required. There would be **no impact** from development of the Proposed Project and no mitigation is required.

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

No Impact. Development of the Proposed Project would not result in the need for new or expanded water supplies. Project-related needs for irrigation water and/or proposed drinking fountains would connect to the existing water main along the north edge of Big Horn Boulevard. **No impact** would result from development of the Proposed Project.

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

No Impact. The Proposed Project would not increase population in the Project vicinity. Development of 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.

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

Less Than Significant Impact. The Kiefer Landfill is the permitted landfill facility in Sacramento County handling recycling and waste disposal for the County and surrounding areas. The Kiefer Landfill is a 1,084-acre Class III landfill that has a maximum permitted capacity of 117,400,000 cubic yards and a remaining capacity of 112,900,000 cubic yards as of September 12, 2005 (Cal Recycle 2015). Project construction would generate some construction debris and excavated soil. This would not affect landfill capacity because anticipated Project-related waste volumes would not be substantial and would occur only during the construction period. Therefore, impacts associated with development of the Proposed Project are considered **less than significant**.

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

Less Than Significant Impact. The Sacramento Regional Solid Waste Authority (SRSWA) is the regional agency handling recycling and waste disposal for the Sacramento region. The Environmental Management Department (EMD) is the Local Enforcing Agency for Sacramento County, enforcing State and local solid waste laws. Minimal solid waste would be generated from the Project during the construction period and would be disposed of at an appropriately permitted and established solid waste facility. All construction debris and excavated soil would be disposed of according to relevant federal, State, and local statues and regulations related to solid waste and impacts are therefore considered **less than significant**.

4.17.2. Mitigation Measures

No mitigation is warranted.

4.18. Mandatory Findings of Significance

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

4.18.1. Impact Analysis

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

Less Than Significant With Mitigation Incorporated. Implementation of the Proposed Project would have the potential to degrade the quality of the existing environment. Potential impacts have been identified related to **Biological Resources** and **Cultural Resources**. 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) Have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Less Than Significant with Mitigation Incorporated. Implementation of the Proposed Project would facilitate the development of an Open Space Trail and educational area within the City of Elk Grove and City of Sacramento. Where applicable, this Initial Study, identifies Mitigation Measures by individual resource area as relevant to potential environmental impacts resulting from development of the Proposed Project. Mitigation Measures are proposed to reduce all Project-related impacts to less than significant levels; therefore, impacts are considered **less than significant with mitigation incorporated**.

c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. Substantial adverse environmental effects to human beings resulting from implementation of the Proposed Project are not anticipated. **No Impact** would result from development of the Proposed Project.

5.0 CEQA DETERMINATION

Pursuant to Section 15063, CEQA Guidelines, City of Elk Grove has utilized an Environmental Checklist to evaluate the potential environmental effects of the Proposed Project. The checklist provides a determination of these potential impacts and includes the substantiation developed in support of the conclusions checked on this form.

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 the mitigation measures described on the attached sheets have been added to the Project (see previous pages). 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 significant effect 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 upon the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." 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, there will NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project. Nothing further is required.

Signature	Date
Printed Name: Rick Carter, P.E. Capital Program Manager	For: City of Elk Grove

6.0 REPORT PREPARATION

6.1. Lead Agency

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6.2.2. TY Lin International

Kevin M. Bewsey, PE, QSD

6.2.3. KD Anderson & Associates, Inc.

Wayne Shijo, Project Manager

7.0 REFERENCES

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EXHIBIT B

Lower Laguna Creek Open Space Trail Project Mitigation Monitoring and Reporting Program

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
Aesthetics				
AES – 1: All outdoor light fixtures which have the potential to impact surrounding land uses shall be designed to minimize impacts to surrounding residences through the use of directional shielding as well as current photometric technology.	City of Elk Grove	City of Elk Grove	During/Following Construction	
Air Quality				
AQ – 1: All off-road construction equipment shall apply the Sacramento Air Quality Management District Guide to Air Quality Assessment in Sacramento County, list of Enhanced Exhaust Control Practices. The City of Elk Grove shall ensure that emissions from all off-road construction equipment would achieve a 20% reduction for NOx.	City of Elk Grove and Construction Contractors	City of Elk Grove/Sacramento Municipal Air Quality Management District (SMAQMD)	During Construction	
Biological Resources				
BIO – 1: A qualified biologist shall conduct botanical surveys within the blooming periods for all special-status plant species within the non-native annual grassland prior to commencement of construction activities. Special-status plant species that shall be surveyed include: bristly sedge (*Carex comosa*), dwarf downingia (*Downingia pusilla*), Ferris' milk-vetch (*Astragalus tener* var. *ferrisiae*), Heckard's	City of Elk Grove/Qualified Biologist	City of Elk Grove	Prior to Construction and During Floristically-appropriate Season	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
pepper-grass (*Lepidium latipes* var. *heckardii*), hogwallow starfish (*Hesperevax caulescens*), and saline clover (*Trifolium hydrophilum*). If none of the special-status plants are observed then a letter report documenting the result of the survey shall be provided to the City of Elk Grove for their records, and no additional measures are required. If any of the non-listed special-status plant species listed above are found within the Project Site, they shall be avoided to the extent feasible. The plant locations shall be identified on a map, and a 10-foot buffer shall be established around the plants with high visibility construction fencing. Construction fencing shall remain intact until all Project construction has been completed. If the special-status plant species cannot be avoided during construction of the Proposed Project, a mitigation plan shall be prepared in consultation with CDFW. At a minimum, the mitigation plan shall include locations where the plants would be transplanted in suitable habitat adjacent to the Project footprint, success criteria, and monitoring activities. The CDFW shall approve the mitigation plan prior to transplantation and commencement of construction activities.				

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
BIO – 2: Twenty-four hours prior to the commencement of construction activities, the Project Site shall be surveyed for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. The Project Site shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred. Snake exclusion fencing shall be established along the outer edge of work as far south as possible from Lower Laguna Creek. During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to minimal area necessary to avoid impacts to giant garter snake. Project-related vehicles will observe a 20-mile-per-hour speed limit within construction areas, except on existing paved roads where they will adhere to the posted speed limits. After completion of construction activities, the City shall ensure that any temporary fill and construction debris, has been removed, wherever	City of Elk Grove/ Qualified Biologist	City of Elk Grove	24 Hours Prior to Construction	

Mitigation Measure (MM)		Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	feasible, and shall restore disturbed areas to pre-Project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-Project conditions.				
BIO – 3:	A qualified biologist shall conduct a pre-construction take survey no less than 14 days prior to initiation of ground disturbance using the recommended methods described in the "Detection Surveys Section" in Appendix D of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If no burrowing owls or sign of burrowing owls are detected in the vicinity of the Project Site during the pre-construction survey, a letter report documenting survey methods and finds shall be submitted to the City of Sacramento, the City of Elk Grove, and the CDFW, and no further avoidance or minimization measures are recommended. If burrowing owls are detected, no-construction buffers and timing on page-9 of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) shall be followed unless a qualified biologist verifies through non-invasive methods 1) that the birds have not begun egg laying and incubation, 2) that juveniles from the occupied burrows are capable of independent survival (i.e., foraging independently, or 3) that a reduced buffer is appropriate based on a site-specific evaluation. In addition, high visibility	City of Elk Grove/Qualified Biologist	City of Elk Grove	14 Days Prior to Construction	

	Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	construction fencing shall be established around the buffer zone, if feasible. Buffer dimensions are outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If the buffers specified above are infeasible, then a qualified biologist shall conduct a site evaluation to determine whether impacts can be avoided with implementation of additional measures. If the qualified biologist determines that measures can be established to avoid impacts to burrowing owls, the qualified biologist shall develop a mitigation plan through consultation with the CDFW including, but not limited to, the installation of visual screens between the nest and construction activities and/or the implementation of biological monitoring during construction activities.				
BIO – 4:	If feasible, any trees anticipated for removal shall be completed outside of the nesting season (September 1 through February 14). The nesting season is from February 15 through August 31. Prior to the commencement of construction activities during the nesting season for Swanson's hawk (between March 1 and September 15), a qualified biologist shall conduct a minimum of two (2) protocol-level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the commencement of	City of Elk Grove/Qualified Biologist	City of Elk Grove	Prior to Construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
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 surveys for nesting Swainson's hawk within 0.25 miles of the Project Site where legally permitted. The qualified biologist shall use binoculars to visually determine whether Swainson's hawk nests occur within the 0.25-mile survey area, if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 miles of the Project Site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the City of Elk Grove and the CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required. If active Swainson's hawk nests are found within 0.25 miles of construction activities, the qualified biologist shall contact the City of Elk Grove and the CDFW within one day following the pre-construction survey to report the findings. For the purposes of this mitigation measure construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing) or other				

	Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	Project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site between February 15 and August 31. Should an active nest be present within 0.25 miles of construction area, then CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing shall be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. If the qualified biologist determines that the construction activities are disturbing the nest, the qualified biologist shall halt construction activities until CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the qualified biologist determine that the nest has not been disturbed during construction activities within the buffer, then a letter report summarizing the survey results shall be submitted to the City of Elk Grove and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are required.				
BIO – 5:	If feasible, any trees anticipated for removal shall be completed outside of the nesting season	City of Elk Grove/Qualified	City of Elk Grove	14 Days Prior to Construction	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
(September 1 through February 14). The nesting season for white-tailed kite is from February 15 through August 31. A qualified biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities and tree removal, if anticipated to commence during the nesting season (between February 15 and August 31) for planning purposes. An additional pre-construction survey shall be conducted within 72 hours of commencement of ground-disturbing activities. If the pre-construction survey shows that there is no evidence of active nests, then a letter report shall be submitted to the City of Elk Grove and the CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, an additional pre-construction survey is required. If any active white-tailed kite nests are identified during the pre-construction survey within the Project Site, a qualified biologist shall establish 250-foot buffer zone around the nests. The biologist shall mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. No trees anticipated for	Biologist			

Mitigation Measure (MM)		Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	removal shall be removed until the qualified biologist determines that the nest is no longer occupied. If a 250-foot buffer is not feasible, then the qualified biologist may reduce the buffer through consultation with the CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring shall occur until the qualified biologist determines that the nest is no longer occupied. Once it has been determined that the nest is no longer active, then a letter report will be submitted to the City of Elk Grove and the CDFW for their records and no additional measures are recommended.				
BIO – 6:	A qualified biologist shall conduct a pre-construction survey for American badger within 14 days prior to the start of ground disturbance. If no American badgers are observed, then a letter report documenting the results of the survey shall be provided to the City of Elk Grove for their records, and 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 American badgers or their dens are found, additional avoidance measures shall occur including having a qualified biologist conduct a pre-	City of Elk Grove/Qualified Biologist	City of Elk Grove	14 Days Prior to Construction	

Mitigation Measure (MM)		Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	construction survey within 24 hours prior to commencement of construction activities, performing a Worker Awareness Training to all construction workers, and being present during grading activities for the purpose of temporarily halting construction activities until the biologist determines that the badger has left the construction footprint on its own accord.				
BIO – 7:	A City of Elk Grove tree permit shall be obtained prior to the removal of any protected trees. At minimum the City of Elk Grove shall mitigate for the loss of the 219 inches DBH at a 1:1 ratio. The City of Elk Grove shall prepare a tree mitigation plan for review and approval by the City Arborist. Only the mitigation authorized under an approved mitigation plan shall be used. The plan shall specify where the trees will be planted and how the trees will be monitored and maintained for a minimum of five years. A chain link or City of Elk Grove-approved barrier shall be installed one-foot outside of the critical root zone of the trees to be retained in order to avoid damage to the trees and their root systems. The critical root zone is defined as a circle with a radius measurement from the trunk of the tree to the tip of its longest limb plus one foot. No grading (grade cut or fills) or trenching shall occur within the critical root zone of trees to be retained with	City of Elk Grove	City of Elk Grove	Prior to Removal of Protected Trees	

Mitigation Measure (MM)		Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	the exception of encroachment areas shown on the final plans. If it is absolutely necessary to install underground utilities within the dripline of the tree, the utility line shall be bored or drilled under the direct supervision of a Certified Arborist. Any pruning of retained trees shall be supervised by a Certified Arborist and should be completed to the most current ISA standards ("Tree Pruning Guidelines") and America National Standards Institute (ANSI) A300 Standards. Branch and limb pruning shall be limited to that which has been deemed necessary in order to correct a safety hazard, structural defect, crown clearing, or arborist recommended pruning in the tree.				
BIO – 8:	If the artificial irrigated seasonal wetland and the two manmade excavated ditch features are not considered jurisdictional, and are subject to the waste discharge requirements under the Porter-Cologne Water Quality Control Act, the City of Elk Grove shall comply with the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ or the current applicable Water Quality Order, and will abide by all applicable filing, reporting, and waste discharge requirements.	City of Elk Grove	City of Elk Grove	Prior to Fill of Non-Federal Aquatic Resources	

Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
BIO – 9: If the Corps determines that the artificial irrigated seasonal wetland and the two manmade excavated ditch features are subject to Federal jurisdiction under Section 404 of the Federal Clean Water Act, or if future Project design modifications result in the placement of fill within federally-jurisdictional waters, prior to initiation of any activity that would place fill in federally-jurisdictional waters, the City shall obtain authorization for the placement of fill in waters of the U.S. and shall comply with the standards in effect at the time authorization is sought. If Project development would result in the fill of federally-jurisdictional waters, the City shall also obtain 401 Water Quality Certification or a waiver, as required by the current Central Valley Regional Water Quality Control Board standards.	City of Elk Grove	City of Elk Grove	Prior to Fill of Federally Jurisdictional Aquatic Resources	
Cultural Resources				
CR – 1: Should buried historical or archaeological deposits or artifacts be inadvertently exposed during the course of construction activities, work shall immediately cease within a 100-foot radius of the find and the City of Elk Grove Development Services Department shall be immediately contacted. A qualified archaeologist shall be retained to document the find, assess its significance, and recommend further treatment.	Contractor and City of Elk Grove	City of Elk Grove	During Construction	

	Mitigation Measure (MM)	Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
	Work on the Project Site shall not resume until the archaeologist has had a reasonable time to conduct an examination and implement mitigation measures deemed appropriate and necessary by the City of Elk Grove in consultation with the qualified archaeologist to reduce impacts to a less than significant level.				
CR – 2:	If evidence of a paleontological site is uncovered during grading or other construction activities, work shall be halted within 100 feet of the find and the City of Elk Grove Planning Department shall be contacted immediately. A qualified paleontologist shall be retained to conduct an on-site evaluation and provide recommendations for removal and/or preservation. Work on the Project Site shall not resume until the paleontologist has had a reasonable time to conduct an examination and implement mitigation measures deemed appropriate and necessary by the City of Elk Grove in consultation with the qualified paleontologist to reduce impacts to a less than significant level.	Contractor and City of Elk Grove	City of Elk Grove	During Construction	

Mitigation Measure (MM)		Implementing Responsibility	Monitoring Responsibility	Timing*	Verification of Compliance (Initials/Date)
CR – 3:	In the event that any human remains or any associated funerary objects are encountered during Project construction, all work shall cease within the vicinity of the discovery and the City of Elk Grove Development Services Department shall be immediately contacted. In accordance with CEQA (Section 1064.5) and the California Health and Safety Code (Section 7050.5), the Sacramento County coroner shall be contacted immediately. If the human remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated funerary objects. Construction activities in the immediate vicinity will not resume until a notice-to-proceed is issued.	Contractor and City of Elk Grove	City of Elk Grove	During Construction	

Appendix B — Lower Laguna Creek Open Space Preserve Project, Erosion Control Work Plan, February 3, 2016

TYLININTERNATIONAL
engineers | planners | scientists

To: City of Elk Grove, Department of Public Works
Attention: Mr. Jonathan Mitchell, Sr. Project Manager

From: Kevin Bewsey, Project Engineer
Dean Zurcher, Assistant Civil Engineer

Date: February 3, 2016

Subject: Lower Laguna Creek Open Space Preserve Project, #WTL022
Active Transportation Program (ATP), ATPL-5479(051)
EROSION CONTROL WORK PLAN

Copy: K. Rhodes, .H Williams, TYLI; File

MEMORANDUM

INTRODUCTION

The City of Elk Grove is proposing to construct over one mile of Class 1 Bikeway/Multi-use trail through a permanent open space preserve adjacent to Laguna Creek. The major improvements include 1.2 miles of new trail (Class I Bikeway), a 60,000 square foot educational area, optional parking area, decomposed granite paths, interpretive sign stations, a signalized pedestrian crossing of Big Horn Blvd., appropriate trail/bikeway signs, striping, pavement markings, and restoration of native riparian and wetland landscaping (as-needed).

The purpose of this memorandum is to document the erosion control work plan. The City of Elk Grove will review and approve this memorandum as the basis for preparation of the erosion control plans, specifications, and estimate.

EROISION CONTROL GUIDANCE

The following Manuals, Guidance, and Standards were reviewed in preparing this memorandum:

- City of Elk Grove Improvement Standards Section 11: Stormwater Quality Protection
- City of Elk Grove Standard Details and Drawings, Section SQ
- City of Sacramento Standard Drawings, Water Quality
- Caltrans Project Planning and Design Guide, dated May 2012
- Caltrans Construction Site Best Management Practices Manual, dated March 2003
- Caltrans SWPPP/WPCP Preparation Manual, dated March 2011
- Caltrans Construction Site Monitoring Program Guidance Manual, dated August 2013

The following permits were reviewed in preparing this memorandum:

- State Water Resources Control Board, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ, NPDES No. CAS000002), or Construction General Permit (CGP).

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TEMPORARY EROSION CONTROL

The Temporary Erosion Control Best Management Practices (BMPs) proposed are shown for each of the six categories of BMPs suitable for controlling potential pollutants on construction sites. Each of the BMPs are further described in the Caltrans Construction Site Best Management Practices Manual.

1) Soil Stabilization (SS) BMPs
   a) SS-1 Scheduling;
   b) SS-2 Preservation of Existing Vegetation;
   c) SS-3 Hydraulic Mulch;
2) Sediment Control (SC) BMPs
   a) SC-1 Silt Fence
   b) SC-4 Check Dam
   c) SC-10 Storm Drain Inlet Protection
3) Tracking Control (TC) BMPs
   a) TC-1 Stabilized Construction Entrance
4) Wind Erosion Control BMPs
   a) Preservation of Existing Vegetation
   b) Watering
   c) Silt Fences
   d) Stockpile Management
5) Non-Stormwater (NS) BMPS
   a) NS-1 Water Conservation Practices
   b) NS-6 Illicit Connection/Illegal Discharge Detection and Reporting
   c) NS-7 Potable Water/Irrigation
   d) NS-8 Vehicle and Equipment Cleaning
   e) NS-9 Vehicle and Equipment Fueling
   f) NS-10 Vehicle and Equipment Maintenance
   g) NS-12 Concrete Curing
   h) NS-14 Concrete Finishing
6) Waste Management and Material Pollution (WM) BMPS
   a) WM-1 Material Delivery and Storage
   b) WM-2 Material Use
   c) WM-3 Stockpile Management
   d) WM-4 Spill Prevention and Control
   e) WM-5 Solid Waste Management
   f) WM-6 Hazardous Waste Management
   g) WM-7 Contaminated Soil Management
   h) WM-8 Concrete Waster Management
   i) WM-9 Sanitary/Septic Waste Management
   j) WM-10 Liquid Waste Management

PERMANENT EROSION CONTROL

The Permanent Erosion Control Best Management Practices (BMPs) proposed are shown for the relevant categories of BMPs suitable for controlling potential pollutants after construction is complete. Please note that temporary erosion control will handle the following construction related controls for the following BMPs: Tracking Control, Non-Stormwater, and Waste Management and

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Material Pollution. Each of the BMPS are further described in the Caltrans Construction Site Best Management Practices Manual.

1) Soil Stabilization (SS) BMPs
   a) SS-2 Preservation of Existing Vegetation;
   b) SS-3 Hydraulic Mulch;
   c) SS-4 Hydroseeding;
   d) SS-10 Outlet Protection/Velocity Dissipation Devices; and
2) Sediment Control (SC) BMPs
   a) SC-5 Fiber Rolls
3) Wind Erosion Control BMPs
   a) Establish Vegetation

EROSION CONTROL WORKPLAN

The following work plan provides a narrative of the implementation of temporary and permanent erosion control BMPs during the pre-construction, active construction, and post construction phases. See attached figure with trail BMPs at each phase.

1. Pre-construction Phase

This phase of construction would begin after the construction contract is awarded and prior to ground disturbing activities.

At this time, the City would have already received coverage under the State Water Resources Control Board, the Construction General Permit (CGP) and the Contractor would prepare the formal Storm Water Pollution Prevention Plan (SWPPP) and construction schedule for review and approval. Once the SWPPP and schedule are approved, the Contractor would receive a notice to proceed and install the temporary fence (Type ESA) to preserve existing vegetation shown to remain and protect Environmentally Sensitive Areas (ESA). In addition, a temporary silt fence would be installed along ESAs with sensitive aquatic features.

Following these activities, tree and brush removal would occur to coincide with the non-nesting period of migratory and nongame birds. Any resulting disturbed areas would be stabilized with temporary hydraulic mulch.

The Contractor would also set up necessary staging areas with temporary construction entrances and temporary concrete washout facilities. These areas would be used for project related equipment and material storage and the contractor would be required to perform job site management which incorporates the following categories of BMPs: Tracking Control, Wind Erosion Control, Non-Stormwater, & Waste Management and Material Pollution (WM) BMPs.

2. Active Construction Phase

This phase of construction would begin with clearing and grubbing and ground disturbing activities and ends after final grading and paving is complete. Prior to beginning the ground disturbing activities, temporary drainage inlet protection shall be installed at inlets.

During this phase, the contractor would maintain BMPs previously installed and place temporary hydraulic mulch, check dams, and fiber rolls in advance of predicted rain events in areas still under construction. As portions of the trail are completed, the contractor may place permanent erosion controls comprised of hydroseed, hydromulch and fiber rolls.

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During this phase, the contractor would also construct outlet protection/velocity dissipation devices and any cross culverts. As needed temporary check damns would be installed at these locations.

3. End of Construction Phase.

This phase of construction would begin after final grading and paving is complete and end with final stabilization and a Notice or Termination (NOT) from coverage under the State Water Resources Control Board CGP.

During this phase, the contractor would remove any equipment and material storage and repair all staging areas to preconstruction conditions. The contractor would also remove any conflicting temporary BMPs previously installed and place the permanent erosion control comprised of hydroseed, hydromulch and fiber rolls.
The permanent BMPs and certain temporary BMPs such as silt fence would be maintained to ensure that final stabilization is complete and the site will not pose any additional sediment discharge risk than it did prior to the commencement of construction activity. Following final stabilization, temporary BMPs and the temporary fence type ESA would be removed.

CONCLUSION

The use of the BMPs proposed in this work plan will control the potential pollutants on the construction sites and allow for preservation of existing vegetation and avoiding impacts to environmental sensitive areas.

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LEGEND/ABBREVIATIONS:

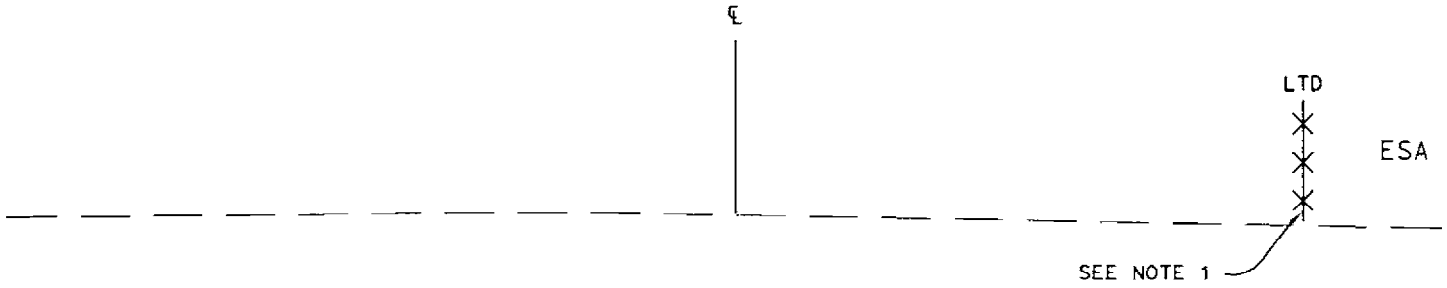
TEMPORARY FENCE (TYPE ESA)

ESA ENVIRONMENTALLY SENSITIVE AREA

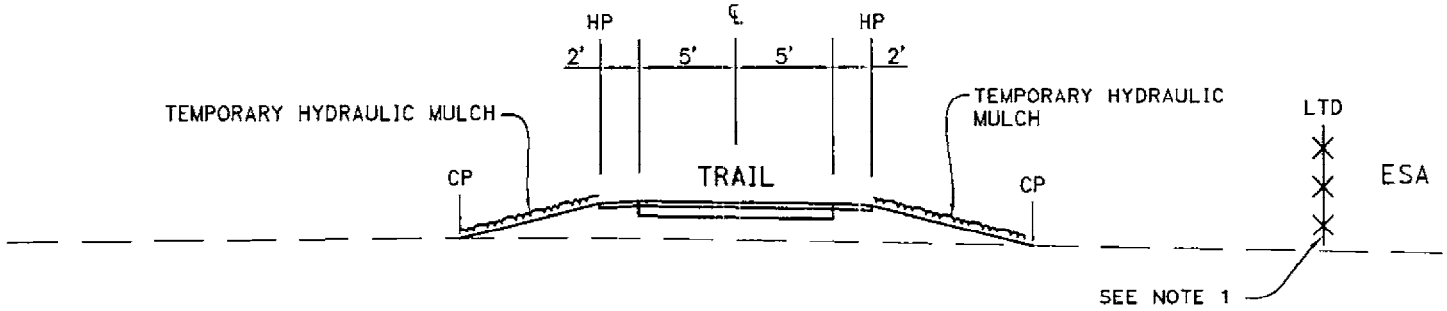
LTD LIMITS OF TEMPORARY DISTURBANCE

NOTES:

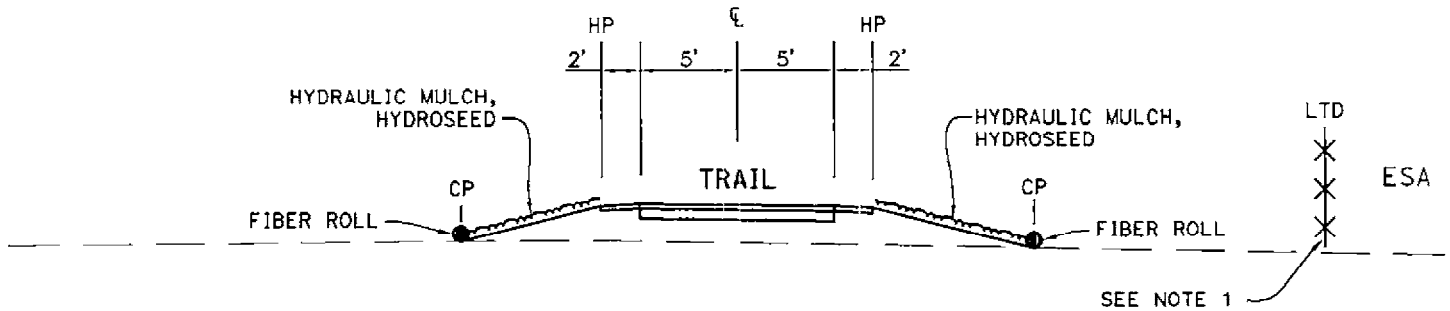
1. ADJACENT TO AQUATIC FEATURES, INCLUDE A TEMPORARY SILT FENCE ALONG TEMPORARY FENCE (TYPE ESA).



PRE-CONSTRUCTION



ACTIVE CONSTRUCTION



POST CONSTRUCTION

SCALE 1" = 10'

LOWER LAGUNA CREEK OPEN SPACE TRAIL PROJECT

EROSION CONTROL TREATMENT CONCEPTS

Appendix C — Lower Laguna Creek Open Space Trail Project Air Quality Emissions Modeling, dated January 22, 2016

KD Anderson & Associates, Inc.
Transportation Engineers

January 22, 2016

Ms. Kyrsten Shields
Senior Regulatory Specialist
Foothill Associates
590 Menlo Drive, Suite 5
Rocklin, CA 95765

Subject: ***Lower Laguna Creek Open Space Trail Project Air Quality Emissions Modeling***

Dear Ms. Shields:

On behalf of KD Anderson & Associates (KDA), I am pleased to submit this letter report presenting the results of air quality emissions modeling of the Lower Laguna Creek Open Space Trail project. This report presents our understanding of the project, a description of methods used in the emissions modeling, and the results of the emissions modeling.

Project Description

The City of Elk Grove proposes to construct the Lower Laguna Creek Open Space Trail project. The proposed project is located on the northern side of the City, between Interstate 5 (I-5) and State Route (SR) 99. **Figure 1** shows the regional vicinity of the project site.

Figure 2 shows the project location and components of the Lower Laguna Creek Open Space Trail project. The project would include a Class I Bikeway/multi-use trail through a permanent open space preserve adjacent to Laguna Creek. The major improvements include:

- approximately 1.2 miles of new trail (Class I Bikeway),
- a 60,000 square foot educational area with decomposed granite paths and interpretive sign stations,
- a signalized pedestrian crossing of Big Horn Boulevard,
- trail/bikeway signs, striping, and pavement markings, and
- restoration of native riparian and wetland landscaping (as-needed).

The trail would connect in the south to the existing Ryland Trail and Betschart and Wackman Parks at Elk Spring Way, and also to the existing Laguna Creek Trail in the City of Sacramento to the north.

Methodology

As recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD) in the *Guide to Air Quality Assessment in Sacramento County* (Sacramento Metropolitan Air Quality Management District 2015), construction-related emissions associated with the Lower Laguna Creek Open Space Trail project were estimated using the Road Construction Emissions Model. The guide notes,

> ". . . for linear construction projects such as construction of a new roadway, road widening, roadway overpass, levee, or pipeline the District recommends the use of the most recent version of the Roadway Construction Emissions Model."

The Road Construction Emissions Model is a spreadsheet-based model specifically designed to estimate emissions associated with construction of roadway facilities and other linear projects. The model uses basic project information (e.g., total construction months, project type, total project area) to estimate a construction schedule and quantify exhaust emissions from heavy-duty construction equipment, haul trucks, and worker commute trips, as well as fugitive particulate matter dust. Additional information on the Road Construction Emissions Model is available at the Sacramento Metropolitan Air Quality Management District internet website (Sacramento Metropolitan Air Quality Management District 2016).

Project-specific information used in the Road Construction Emissions Model was provided by project engineers at TY Lin International (Zajac pers. comm.).

The Lower Laguna Creek Open Space Trail project would not affect long-term roadway traffic volumes or capacity, and would not affect long-term operational emissions. Because the project would not affect long-term operational emissions, this letter report focuses on short-term construction-related emissions.

Significance Thresholds

For this letter report, significance thresholds from the SMAQMD *Guide to Air Quality Assessment in Sacramento County* (Sacramento Metropolitan Air Quality Management District 2015) were applied. A summary of the thresholds is presented in the *SMAQMD Thresholds of Significance Tables* from the guide, which is enclosed with this letter report.

Criteria Pollutant Emissions. Significance thresholds from the *Guide to Air Quality Assessment in Sacramento County* were applied to the following criteria pollutant emissions:

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- nitrogen oxides (NO_x),
- inhalable particulate matter less than 10 micrometers in diameter (PM_{10}), and
- fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$).

For the construction phase, the NO_x significance threshold is 85 pounds per day (ppd). In this letter report, if the Lower Laguna Creek Open Space Trail project would generate more than 85 ppd of NO_x, the project is considered to have a significant impact on NO_x emissions. If the project would generate 85 ppd of NO_x or less, the project is considered to have a less-than-significant impact on NO_x emissions.

The *Guide to Air Quality Assessment in Sacramento County* notes,

> ". . . all construction projects . . . are required to implement the District's Basic Construction Emission Control Practices (also known as Best Management Practices (BMPs))."

The BMPs, also known as Best Available Control Technologies (BACT), reduce construction-related particulate matter emissions. As shown in the *SMAQMD Thresholds of Significance Tables*, the PM_{10} significance threshold for the construction phase is 80 ppd and 14.6 tons per year (tpy), "if all feasible BACT/BMPs are applied". The *Guide to Air Quality Assessment in Sacramento County* presents a list of Basic Construction Emission Control Practices (BACT/BMPs). This list is enclosed with this letter report. This significance threshold is applied in this letter report to PM_{10} emissions.

As shown in the *SMAQMD Thresholds of Significance Tables*, the $PM_{2.5}$ significance threshold for the construction phase is 82 ppd and 15 tpy, "if all feasible BACT/BMPs are applied". The list of Basic Construction Emission Control Practices (BACT/BMPs) is enclosed with this letter report. This significance threshold is applied in this letter report to $PM_{2.5}$ emissions.

As noted in the *SMAQMD Thresholds of Significance Tables*, the significance threshold for reactive organic gas (ROG) applies to operational emissions. But, no ROG significance threshold is presented for construction-related emissions. As noted above in the Methodology section, the Lower Laguna Creek Open Space Trail project would not affect operational emissions. Therefore, this letter report does not identify the significance of ROG emissions associated with the project.

Greenhouse Gas Emissions. As shown in the *SMAQMD Thresholds of Significance Tables*, the significance threshold for greenhouse gas (GHG) emissions for the construction phase is 1,100 metric tons per year (MT/yr) of carbon dioxide equivalent (CO_2e) emissions.

While CO_2 is the most common component of GHG emissions, several different compounds are components of overall GHG emissions. While some of the less common gases do make up less of the total GHG emissions emitted to the atmosphere, some have more effect per molecule than CO_2. The different compounds contribute to climate change with varying intensities. The term

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"CO_2 equivalent" (CO_2e) refers to a weighted composite of these compounds, expressed as the equivalent amount of CO_2. For this letter report, project-related emissions of nitrous oxide (N_2O) and methane (CH_4) were estimated based on methods from the California Air Resources Board (ARB) and U.S. Environmental Protection Agency (EPA) (California Air Resources Board 2016, and U.S. Environmental Protection Agency 2016). A weighted composite CO_2e value was then calculated based on methods from the EPA (U.S. Environmental Protection Agency 2016).

In this letter report, if the Lower Laguna Creek Open Space Trail project would generate more than 1,100 MT/yr of CO_2e, the project is considered to have a significant impact on global climate change. If the project would generate 1,100 MT/yr of CO_2e or less, the project is considered to have a less-than-significant impact on global climate change.

Emissions Estimates

The following describes the results of the emissions modeling analysis and the significance of air quality impacts. The Road Construction Emissions Model output report, showing the pollutant emissions estimates, is enclosed.

Criteria Pollutant Emissions. The enclosed table shows estimates of criteria pollutant emissions associated with construction of the Lower Laguna Creek Open Space Trail project. As shown in the table, project-related PM_{10} and $PM_{2.5}$ emissions would be below both the daily and annual significance thresholds. Project-related NO_x emissions would be below the annual significance threshold. Therefore, the impact of the project on these criteria pollutant emissions is considered less than significant. No mitigation measures are required.

As also shown in the enclosed table, project-related NO_x emissions would be 95.6 ppd during the grading/excavation phase of construction, which would be greater than the 85 ppd significance threshold for NO_x. Therefore, this is considered a significant impact. As noted in the *Guide to Air Quality Assessment in Sacramento County*,

> "For projects that will generate maximum daily NO_x emissions that exceed the District's threshold of significance, . . . the District recommends implementation of the Enhanced Exhaust Control Practices for off-road construction equipment. The District considers implementation of the Enhanced Exhaust Control Practices to achieve a 20% reduction for NO_x and a 45% reduction for PM_{10} from off-road construction equipment exhaust when compared to the state fleet average."

The *Guide to Air Quality Assessment in Sacramento County* presents a list of Enhanced Exhaust Control Practices. This list is enclosed with this letter report. As shown in the enclosed table, with application of the Enhanced Exhaust Control Practices during the grading/excavation phase of construction, project-related NO_x emissions would be 76 ppd, which would be less than the 85 ppd significance threshold. Therefore, application of the Enhanced Exhaust Control Practices would reduce this impact to a less-than-significant level.

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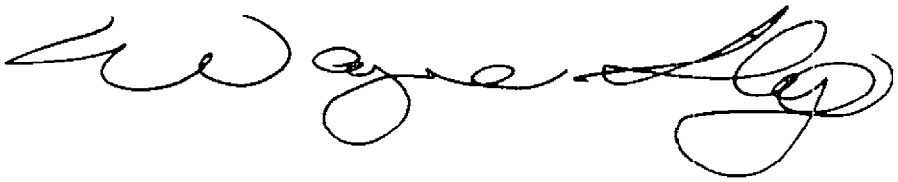
Greenhouse Gas Emissions. Construction of the Lower Laguna Creek Open Space Trail project would result in 530.22 MT/yr of CO_2e. This amount is less than the 1,100 MT/yr GHG emissions significance threshold. Therefore, this impact is considered less than significant. No mitigation measures are required.

Closing

Thank you for providing KDA with this opportunity to provide you with air quality emissions modeling services on the Lower Laguna Creek Open Space Trail project. Please let me know if you have any questions about this letter report.

Sincerely,

KD Anderson & Associates, Inc.



Wayne Shijo
Project Manager

enclosures

KDA

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Sacramento Metropolitan Air Quality Management District. 2015. Guide to Air Quality Assessment in Sacramento County. December 2009, latest revision June 2015. Sacramento, CA.

Sacramento Metropolitan Air Quality Management District. 2016. Sacramento Metropolitan Air Quality Management District Internet Website. http://www.airquality.org

U.S. Environmental Protection Agency. 2016. U.S. Environmental Protection Agency Internet Website. http://www.epa.gov

Personal Communications

Zajaz, Kari. Environmental Planner/Regulatory Specialist. Foothill Associates. January 4, 2016 E-mail message to Wayne Shijo, KD Anderson & Associates.

City of Elk Grove
Development Services

Figure 1

Regional Vicinity

City of Elk Grove
Development Services

ELK GROVE

Figure 2

Project Location

Sacramento Metropolitan Air Quality Management District
Thresholds of Significance Table

SMAQMD Thresholds of Significance Table

All Projects Subject to CEQA		
	Construction Phase	**Operational Phase**
Mass Emission Thresholds		
NO_X (ozone precursor)	85 pounds/day	65 pounds/day
ROG (VOC) (ozone precursor)	NONE	65 pounds/day
PM_{10}	**Zero (0).** If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year	**Zero (0).** If all feasible BACT/BMPs are applied, then 80 pounds/day and 14.6 tons/year
$PM_{2.5}$	**Zero (0).** If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year	**Zero (0).** If all feasible BACT/BMPs are applied, then 82 pounds/day and 15 tons/year
Concentration Thresholds (based on the California Ambient Air Quality Standard, identical threshold for both phases of development)		
CO	20 ppm 1-hour standard (23 mg/m^3); 9 ppm 8-hour standard (10 mg/m^3)	
NO_2	0.18 ppm 1-hour standard (339 $\mu g/m^3$); 0.03 ppm Annual Arithmetic Mean (57 $\mu g/m^3$)	
SO_2	0.25 ppm 1-hour standard (665 $\mu g/m^3$); 0.04 ppm 24-hour standard (105 $\mu g/m^3$)	
Lead	1.5 $\mu g/m^3$ 30-day average	
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent	
Sulfates	25 $\mu g/m^3$ 24-hour standard	
H_2S	0.03 ppm (42 $\mu g/m^3$) 1-hour standard	
Vinyl Chloride	0.01 ppm (26 $\mu g/m^3$) 24-hour standard	

Land Development and Construction Projects		
	Construction Phase	**Operational Phase**
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	1,100 metric tons/year

Stationary Source Only	
Toxic Air Contaminant (TAC) Thresholds	
Cancer Risk	An incremental increase in cancer risk greater than 10 in one million at any off-site receptor.
Non-cancer (Hazard Index)	Ground-level concentration of project-generated TACs that would result in a Hazard Index greater than 1 at any off-site receptor.

	Construction Phase	**Operational Phase**
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	10,000 metric tons/year

Notes:

The SMAQMD Board of Directors adopted air quality thresholds of significance for criteria pollutants on March 28, 2002, via resolution AQMD2002018.
A project is considered significant if emissions exceed a CAAQS or contribute substantially to an existing or projected violation of a CAAQS.
A substantial contribution is considered an emission that is equal to or greater than 5% of a CAAQS.
Revisions to the CAAQS are automatically adopted as revisions to these thresholds.
Official citation for the CAAQS: California Code of Regulations, Title 17, Section 70200, Table of Standards.

The TAC thresholds were developed as part of the SMAQMD's AB2588 program.
The SMAQMD Board of Directors has not established a threshold for mobile source or non-permitted sources of TAC, see Chapter 5.

The SMAQMD Board of Directors adopted GHG thresholds on October 23, 2014, via resolution AQMD2014-028

The SMAQMD Board of Directors rescinded the 2002 concentration based thresholds for PM10 and PM2.5 and adopted the new mass emissions PM10 and PM2.5 thresholds on May 28, 2015,via resolution AQMD2015-022. BACT is best available control technology and BMPs are best management practices.

Sacramento Metropolitan Air Quality Management District
Basic Construction Emission Control Practices
(Best Available Control Technologies [BACT]/
Best Management Practices [BMPs])

BASIC CONSTRUCTION EMISSION CONTROL PRACTICES

The following practices are considered feasible for controlling fugitive dust from a construction site. Control of fugitive dust is required by District Rule 403 and enforced by District staff.

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel powered equipment. The California Air Resources Board enforces the idling limitations.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

Although not required by local or state regulation, many construction companies have equipment inspection and maintenance programs to ensure work and fuel efficiencies.

- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Lead agencies may add these emission control practices as Conditions of Approval (COA) or include in a Mitigation Monitoring and Reporting Program (MMRP).

Road Construction Emissions Model
Output Report

Road Construction Emissions Model, Version 7.1.5.1

Emission Estimates for -> Lower Laguna Creek Trail				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	2.1	12.2	17.0	20.8	0.8	20.0	4.9	0.7	4.2	2,117.5
Grading/Excavation	8.8	47.8	95.6	24.4	4.4	20.0	8.1	4.0	4.2	11,718.9
Drainage/Utilities/Sub-Grade	7.3	38.7	66.1	23.6	3.6	20.0	7.4	3.3	4.2	7,469.0
Paving	3.4	19.1	26.0	1.7	1.7	-	1.6	1.6	-	3,384.1
Maximum (pounds/day)	8.8	47.8	95.6	24.4	4.4	20.0	8.1	4.0	4.2	11,718.9
Total (tons/construction project)	0.5	2.4	4.4	1.3	0.2	1.1	0.4	0.2	0.2	529.4

Notes:

Project Start Year ->	2017
Project Length (months) ->	6
Total Project Area (acres) ->	6
Maximum Area Disturbed/Day (acres) ->	1
Total Soil Imported/Exported (yd^3/day)->	400

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 -> Lower Laguna Creek Trail				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.0	5.5	7.7	9.5	0.4	9.1	2.2	0.3	1.9	962.5
Grading/Excavation	4.0	21.7	43.4	11.1	2.0	9.1	3.7	1.8	1.9	5,326.8
Drainage/Utilities/Sub-Grade	3.3	17.6	30.1	10.7	1.6	9.1	3.4	1.5	1.9	3,395.0
Paving	1.6	8.7	11.8	0.8	0.8	-	0.7	0.7	-	1,538.2
Maximum (kilograms/day)	4.0	21.7	43.4	11.1	2.0	9.1	3.7	1.8	1.9	5,326.8
Total (megagrams/construction project)	0.4	2.2	4.0	1.2	0.2	1.0	0.4	0.2	0.2	480.2

Notes:

Project Start Year ->	2017
Project Length (months) ->	6
Total Project Area (hectares) ->	2
Maximum Area Disturbed/Day (hectares) ->	0
Total Soil Imported/Exported (meters ^{3}/day)->	306

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

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

Lower Laguna Creek Open Space Trail Project Construction-Related Emissions

Construction Phase and Significance Factor	Reactive Organic Gas (ROG)	Nitrogen Oxides (NO_x)	Inhalable Particulate Matter (PM10)	Fine Particulate Matter ($PM_{2.5}$)
Grubbing / Land Clearing	2.1	17.0	20.8	4.9
Grading / Excavation	8.8	95.6	24.4	8.1
Drainage / Utilities / Sub-Grade	7.3	66.1	23.6	7.4
Paving	3.4	26.0	1.7	1.6
Maximum	8.8	95.6	24.4	8.1
Significance Threshold	None	85	80	82
Significant Impact?		Yes	No	No
Grading / Excavation (With Mitigation Measure)		76		
Significant Impact?		No		
Total Construction Period	0.5 Tons	4.4 Tons	1.3 Tons	0.4 Tons
Significance Threshold	None	None	15 Tons per Year	15 Tons per Year
Significant Impact?			No	No

Notes: All values are in pounds per day unless otherwise noted.
Source: Sacramento Metropolitan Air Quality Management District 2015, and Road Construction Emissions Model.'

Sacramento Metropolitan Air Quality Management District
Enhanced Exhaust Control Practices

ENHANCED EXHAUST CONTROL PRACTICES

1. The project representative shall submit to the lead agency and District a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.

    - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
    - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
    - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
    - The District's Equipment List Form can be used to submit this information.
    - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

2. The project representative shall provide a plan for approval by the lead agency and District demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NO_X reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.

    - This plan shall be submitted in conjunction with the equipment inventory.
    - Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
    - The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

3. The project representative shall ensure that emissions from all off-road diesel powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.

    - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately.

- Non-compliant equipment will be documented and a summary provided to the lead agency and District monthly.
- A visual survey of all in-operation equipment shall be made at least weekly.
- A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.

4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supercede other District, state or federal rules or regulations.

Appendix D — Natural Environmental Study, Lower Laguna Creek Open Space Trail, City of Elk Grove and City of Sacramento, California, dated February 2016

Final Natural Environmental Study

[03-Sacramento] – [Lower Laguna Creek Open Space Trail Project]

Project Number: ATPL-5479(051)

February 2016

Caltrans
CALIFORNIA DEPARTMENT OF TRANSPORTATION

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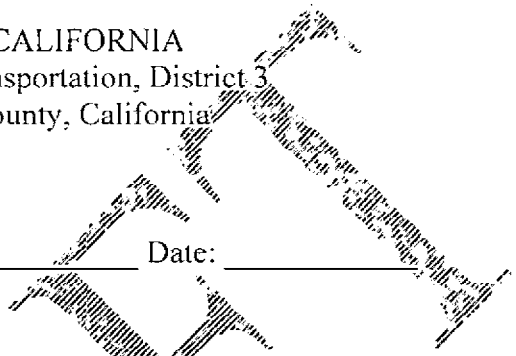
Natural Environment Study

Lower Laguna Creek Open Space Trail Project

Federal ID Number: ATPL-5479(051)

February 2016

STATE OF CALIFORNIA
Department of Transportation, District 3
Sacramento County, California



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Summary

The City of Elk Grove is proposing to construct a combined Class I bikeway and multi-use trail, with an interpretive educational area. The trail would connect at its southern end to the existing Ryland and Laguna Creek Trail system from Elk Spring Way north to the Laguna Creek Trail in the City of Sacramento.

The Biological Study Area (BSA) includes a vacant parcel and two permanent open space preserves, the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area. The BSA is characterized primarily by disturbed non-native annual grassland that experiences high levels of human disturbance, including pedestrian and off-road vehicular traffic, trash, and fire damage.

The constructed vernal pools and seasonal wetlands provide habitat for the federally-listed vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardi*). The project will have no impact on these species since the project was designed to avoid the aquatic features.

The project could affect potentially occurring non-listed special-status plants, nesting migratory birds and raptors including: burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), white-tailed kite (*Elanus leucurus*), and American badger (*Taxidea taxus*).

The project was designed to avoid potentially jurisdictional waters of the U.S. Therefore, no impacts to potentially jurisdictional features would occur. Should the project result in impacts to any waters of the U.S., a Section 404 Authorization would be required by the U.S. Army Corps of Engineers (USACOE) and 401 Water Quality Certification would be required, unless waived.

Two manmade excavated linear ditches occur within the BSA. These are not waters of the U.S. given that they are comprised of ephemeral flows that are not relocated tributaries, excavated in a tributary or that drain wetlands (33 CFR Part 328). In addition, a convex, sloped seasonal wetland was formed on the central-western portion of the BSA as a result of year-round irrigation runoff from the adjacent residences. Artificially irrigated areas that would revert to dry land should application of water to that area cease are not considered waters of the U.S. (33 CFR Part 328). If the USACOE verifies that the features are not jurisdictional, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the project result in impacts to these features. 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.

Project implementation could result in spreading invasive plant species and noxious weeds.

Measures to avoid and minimize impacts to biological resources shall be implemented.

Table of Contents

List of Tables

List of Figures

List of Appendices

List of Abbreviated Terms

ADA	American Disabilities Act
BMP	Best Management Practice
BSA	Biological Survey Area
BPTMP	Bike, Pedestrian, and Trails Master Plan
CFR	California Federal Register
Cal-IPC	California Invasive Plant Council
Caltrans	California Department of Transportation
CDFG	California Department of Fish and Game
CDFW	California Department and Fish and Wildlife
CDFA	California Department of Food and Agriculture
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNPS	California Native Plant Society
CNDDB	California Natural Diversity Database
CSD	Cosumnes Community Service District
CWA	Clean Water Act
DBH	Diameter at Breast Height
DG	Decomposed granite
EO	Executive Order
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
HMA	Hot Mixed Asphalt
MBTA	Migratory Bird Treaty Act
MSL	Mean Sea Level
NPDES	Non-Pollutant Discharge Elimination System
NEPA	Natural Environmental Policy Act
NES	Natural Environment Study
NRCS	Natural Resources Conservation Service
PIA	Project Impact Area
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
SMUD	Sacramento Municipal Utility District
SNC	sensitive natural community

SWRCB	State Water Resources Control Board
USACOE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

1.1 Project and Study Area Definitions

The Project Impact Area (PIA) includes the footprint of approximately 6.48 acres of temporary impacts and 5.05 acres of permanent impacts associated with the project. The Biological Study Area (BSA) is defined as 58.4 acres of land, which includes two existing preserves to the north of Big Horn Boulevard and an undeveloped parcel to the south of Big Horn Boulevard.

1.2 Project Location

The BSA is located within the City of Elk Grove and the City of Sacramento, California. The BSA is situated approximately 0.5 miles east of Franklin Boulevard, approximately 2 miles west of California State Route 99, intersected by Big Horn Boulevard, and bordered to the north by Laguna Creek. The BSA is located within Sections 21 and 28 of Township 7 North, Range 5 East on the USGS *Florin, California* 7.5-minute quadrangle map. The approximate location is 38° 26' 17.783" North, 121° 26' 4.170" West (**Figure 1**).

1.3 Project History

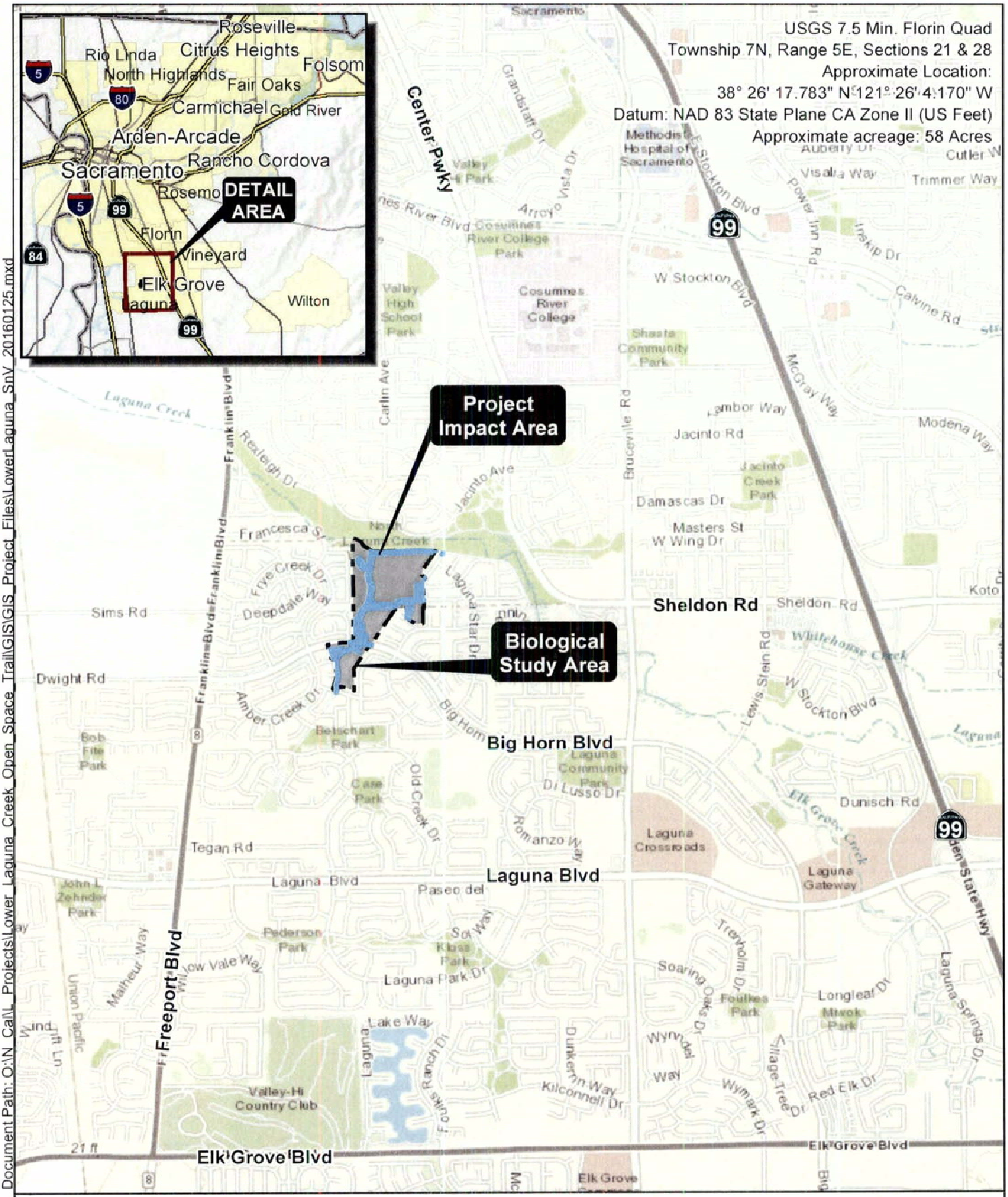
1.3.1 Purpose and Need

The existing Laguna Creek Trail and Ryland Trail do not connect, which creates a barrier to non-motorized transportation mobility and has resulted in the development of informal trails through two open space preserves to connect the existing trails. Development of the Lower Laguna Creek Open Space Trail would close a gap in the regional trail system by connecting the existing Ryland Trail and Laguna Creek Trail, providing a more direct, non-motorized route to existing schools and the overall park system. The trail connection would fill demand from a variety of users including a safer route for students attending John Ehrhardt Elementary School, Laguna Creek High School, Marion Mix Elementary School, and Cosumnes River College, bicycle commuters traveling to downtown Sacramento, recreational trail users, and those traveling to various commercial centers. Closing the gap between two existing trails offers users access to a vast system of trails with connections to parks, schools, community centers, commercial retail and office areas, and transit facilities. There are several existing parks within the surrounding area including: Betschart, Case, Davis, Herburger, North Laguna Creek, Rose, and Wackman Park. These parks provide limited amenities for outdoor education with no gathering areas. The educational area would therefore, provide an opportunity for increased watershed education and environmental stewardship.

1.4 Alternatives

The City of Elk Grove considered seven alternative trail alignments for the project. The final design was chosen to minimize the impacts to environmental features and follow the existing informal trail alignments. The seven alternative alignments (Alternatives A through G) are discussed in further detail below and shown on **Figure 2**.

Alternative A. Alternative A would avoid the existing SMUD utilities and follow the existing informal trail. The alternative would cross a basin at the highest point, if feasible, and avoid the berm at the north end of the parcel to reduce impacts to the profile.



LOWER LAGUNA CREEK OPEN SPACE TRAIL PROJECT LOCATION MAP

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FIGURE 1

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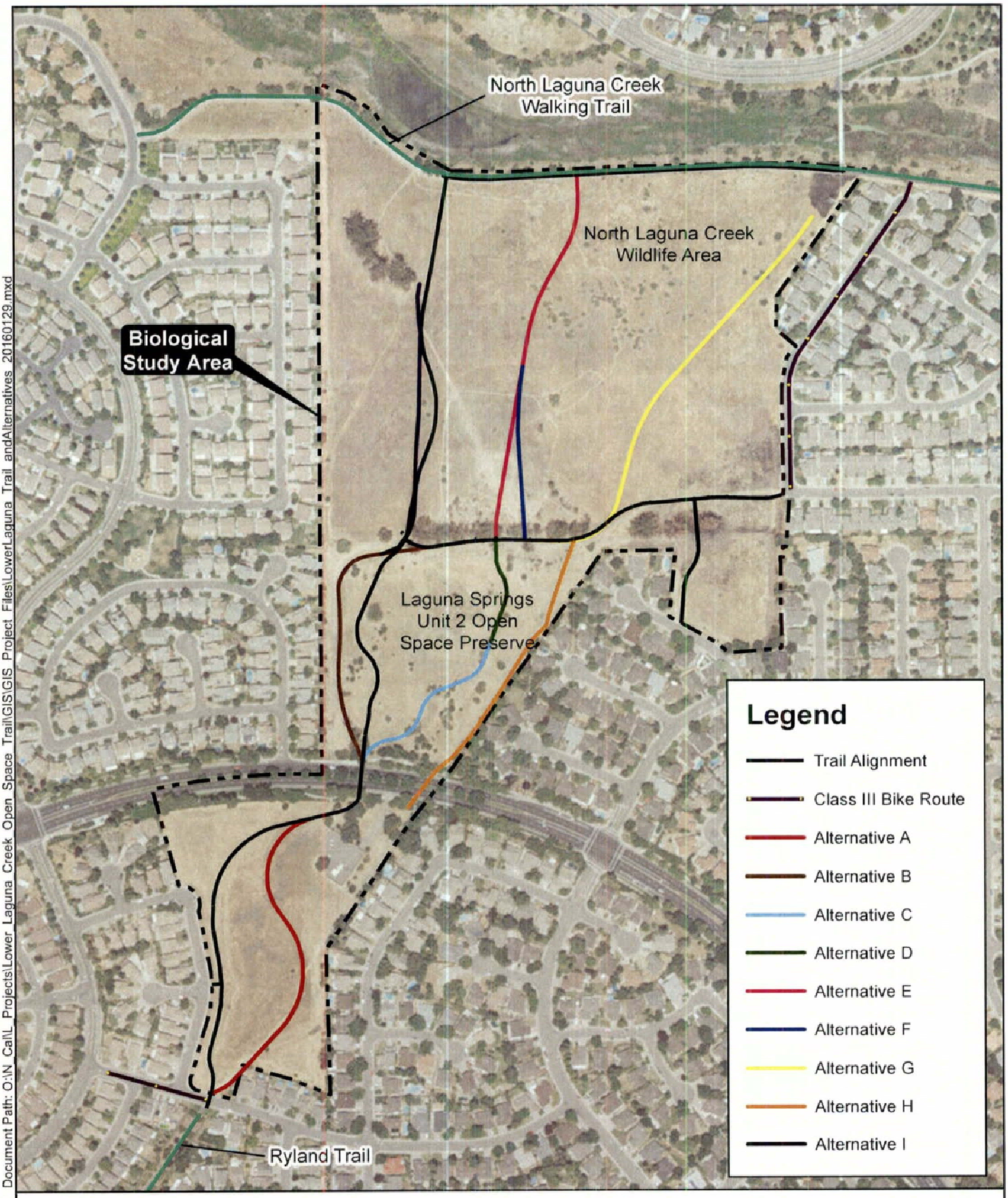

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LOWER LAGUNA CREEK OPEN SPACE TRAIL ALTERNATIVE ALIGNMENTS

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FIGURE 2

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Alternative B. Alternative B would avoid wetlands, but impact existing vegetation following the existing informal trail. The lowest areas would be avoided with Alternative B and there would be no impacts to the excavated linear ditch.

Alternative C. Alternative C would have reverse curves and avoid the large basin, two wetlands, and the back of residences. However, Alternative C would impact existing vegetation.

Alternative D. Alternative D crosses the excavated linear ditch at the narrowest point and avoids the high point to reduce impacts to the profile.

Alternative E. Alternative E was designed to connect Alternative C to the exiting trail with the shortest path possible and would avoid low areas.

Alternative F. Alternative F would connect the Main Trail Alignment with Alternative E.

Alternative G. Alternative G would be a more direct northeast alignment on high ground. However, Alternative G would eliminate connections to existing roadways.

1.5 Project Description

The City of Elk Grove would construct a combined Class I bikeway and multi-use trail, with an interpretive educational area. This trail would connect at its southern end to the existing Ryland and Laguna Creek Trail system from Elk Spring Way north to the Laguna Creek Trail in the City of Sacramento. The trail would be constructed through two permanent open space preserves, the Laguna Springs Unit 2 Open Space Preserve and the North Laguna Creek Wildlife Area. The trail would connect the existing Laguna Creek Trail and Ryland Trail for bicycle and pedestrian commuters and students while providing educational opportunities in the interpretive/educational area (**Figure 3**).

1.5.1 Trail Design and Landscape

Major trail design features include approximately 1.15 miles (4,752 feet of paved trail and 1,320 feet of optional paving south of Lower Laguna Creek) of new trail (Class I bikeway), trail signs, striping, and pavement markings. The project would develop a paved ten-foot bikeway with two-foot shoulders for use by pedestrians and bicyclists connecting trail users to existing trails, residences, schools, and commercial centers.

Paved surfaces would consist of Hot Mixed Asphalt (HMA) or stabilized Decomposed Granite (DG) with base and sub base as needed. For the base material, aggregate base would be used and for the sub base it would be either native material or a treated native material. Treatments would include cement or lime. The trail would be a standard 10-foot wide path with 2-foot shoulders, except in several locations where the trail would be wider. The trail would follow existing informal trails where feasible and side slopes would be constructed with a 3:1 slope. Existing trees and shrubs along the trail alignment would be pruned to ensure adequate sight lines for bicyclists and pedestrians. Additionally, some or all of the non-native eucalyptus trees may be removed.

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LOWER LAGUNA CREEK OPEN SPACE TRAIL PROJECT IMPACT AREA

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FIGURE 3

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The Main Trail Alignment, which extends from Elk Springs Way to Big Horn Boulevard, would have reversing 100-foot radii curves starting at Elk Springs Way and following the existing berm. At Coaldale Court, there would be a trail connection to connect with the existing ADA ramp. To avoid the existing SMUD substation and impacts to vegetation, the trail alignment would tie into the existing sidewalk. A midblock crossing for Big Horn Boulevard would be installed in locations where midblock signal masts would not impact the existing utilities, impacts would occur to one median tree, and would not require a new driveway at the SMUD substation driveway. The alternative to this section of the trail alignment is Alternative A.

The Main Trail Alignment, from Big Horn Boulevard to the Elk Grove City limits, would be designed to balance cut/fill between Big Horn Boulevard to the City of Elk Grove limits. The crossing for this section of the trail utilizes the existing high points on each side of the excavated linear ditch to minimize changes to the site hydrology. The alternatives to this section of the trail alignment are Alternatives B, C, or D.

The Main Trail Alignment East Leg, from the City of Elk Grove limits to Laguna Creek, would avoid wetlands, utilities, and residences. The trail alignment would connect to Dunstan Place and have two connections to Fieldale Drive. The alternatives to this section of the trail alignment are Alternatives E or F.

The Main Trail Alignment West Leg, from the City of Elk Grove limits to Laguna Creek, would follow the existing informal trail. The trail alignment would curve between multiple wetlands and locations of dense oak trees. The alternative to this section of the trail alignment is Alternative G.

1.5.2 Educational Area

A 60,000 square foot educational area with stabilized decomposed granite trails, interpretive sign stations, and an amphitheater would be added to the Laguna Springs Unit 2 Open Space Preserve for use by the local Elk Grove Unified School District and trail users. The educational area would be within the City of Elk Grove just north of Big Horn Boulevard, on the western side of the trail alignment. The educational area would create five small outdoor gathering areas for small groups and educational presentations with approximately 9,000 square feet of trails and paved areas. Several of the activities that would occur within the educational area include: watershed education, environmental stewardship, science related education activities, art related education activities, after school program use, and physical education related activities. The educational area may provide safety lighting and electrical services for educational needs.

The educational area would include an amphitheater/presentation area for larger gatherings. A 10-foot by 12-foot area covered with permeable pavers would serve as the stage in the amphitheater. The amphitheater would provide seating for up to 65 people to view presentations on the stage.

Trails within the educational area would be constructed of stabilized decomposed granite for walkways and gathering areas. Paths would be designed to allow maintenance access to the educational area. Seating in the educational area may include logs and rocks in addition to benches.

The existing oak trees within the educational area would be preserved to the greatest extent possible and only native plants would be utilized because the educational area is located in an existing preserve. Approximately 8,000 square feet within the educational area would consist of native planting. Large evergreen trees and shrubs would be planted on the west side of the gathering areas to help screen the adjacent residences, and an additional 43,000 square feet would remain as native surroundings.

1.5.3 Road Crossings and Signage

There would be several road crossings and trail markers to ensure public safety on the trail. The trail pavement would have delineation markers and other markings and signs necessary to meet the City of Elk Grove and City of Sacramento Standards and the California Manual of Uniform Traffic Control Devices. The City of Elk Grove may also elect to provide wayfinding signs. According to the *Bike, Pedestrian, and Trails Master Plan* (BPTMP), all bicycle striping and wayfinding signs shall also conform to the *Caltrans Highway Design Manual* chapter 1000 (City of Elk Grove 2014). The trail would have one unsignalized midblock crossing at Elk Springs Way.

1.5.4 Parking

Parking for the educational area would be provided southeast of the educational area. The proposed parking area would encompass 3,400 square feet and would include 10 parking spaces.

1.5.5 Utilities

To provide water services the Proposed Project would connect to the existing water main along the north edge of Big Horn Boulevard.

Electricity would come from existing service within Big Horn Boulevard right of way.

1.5.6 Trail Amenities

There would be several nodes placed at various points along the trail alignment. These nodes would include a decomposed granite pad with a bench, interpretive sign or trail map, and trash can as amenities for trail users along the alignment. All nodes would be ADA compliant. Landscape improvements along the trail alignment would be associated with important nodes along the trail, such as trail connections, street crossings, and stopping points.

A post and cable fence would be constructed along the perimeter of the trail and education area to reduce unauthorized pedestrian and vehicular use in the preserve, combined with the installation of interpretive signage to enhance environmental awareness.

1.5.7 Trail Maintenance

All of the trails within the City of Elk Grove are maintained by the Cosumnes Community Service District (CSD) and the City of Elk Grove. The City of Elk Grove maintains trail pavement while the CSD is responsible for all other trail features through a Master Agreement. Maintenance includes weed abatement, pruning vegetation for sight distance, sign installation and removal, damage from weather conditions, and general trail clean up.

1.5.8 Avoided Aquatic Features

A minimum three-foot buffer would be maintained along all avoided potentially jurisdictional aquatic features in the vicinity of the proposed trail improvements. The buffer would be established based on the delineated and U.S. Army Corps of Engineers-verified jurisdictional boundaries of individual features. Temporary construction exclusion fencing and silt fencing would be installed to further define these limits and exclude construction equipment and activities.

A continuous linear segment of silt fence would be installed along the northern project boundary south of the Laguna Creek Corridor.

1.5.9 Existing Easements

There are several existing utility easements within the BSA, including overhead electrical easements, storm drain easements, and sanitary sewer easements. The overhead electrical easement requires the area around utilities to be maintained to facilitate access of large maintenance vehicles.

1.5.10 Construction

Three potential staging areas for construction equipment are proposed within the PIA. One potential staging area is identified in the northwest of the southernmost parcel of the PIA off of Murrell Street. A second potential staging area is identified in the southeastern portion of the northernmost parcel of the PIA off of Fieldale Drive. The third and final potential staging area would be the proposed educational area.

All exposed/disturbed areas shall be restored using locally native seed mixes.

The following sections describe federal, State, and local environmental laws and policies that are relevant to this Natural Environment Study (NES) and the studies required for this project.

2.1 Regulatory Requirements

2.1.1 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. The 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.

2.1.2 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.

2.1.3 Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health." Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the California Invasive Species Council, to define the invasive plants that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project. Under this EO, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

2.1.4 Section 404 of the Clean Water Act

The U.S. Army Corps of Engineers 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)].

Ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are not considered waters of the U.S. because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters (USACOE, USEPA 2007).

2.1.5 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, 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).

2.1.6 Section 401 Water Quality Certification

A Section 401 Water Quality Certification Permit was established to comply with CWA Sections 301, 302, 303, 306, and 307 and is regulated by the Regional Water Quality Control Board. Anyone that proposes to conduct a project that may result in a discharge to U.S. surface waters and/or "waters of the state" including wetlands (all types) year round and seasonal streams, lakes and all other surface waters would require a federal permit. At a minimum, any beneficial uses lost must be replaced by a mitigation project of at least equal function, value, and area. Waste Discharge Requirements Permits are required pursuant to California Water Code Section 13260 for any persons discharging or proposing to discharge waste, including dredge/fill, that could affect the quality of the waters of the State.

2.1.7 Section 1600 Streambed Alteration Agreement

The California Department of Fish and Wildlife (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.

2.1.8 Porter-Cologne Water Quality Control Act

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.

2.1.9 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.

2.1.10 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.

2.1.11 California Native Plant Society

The California Native Plant Society (CNPS) maintains a rank of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2015a and 2015b). The CNPS rankings categorize plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

2.1.12 City of Sacramento Tree Ordinance

The City of Sacramento protects Heritage trees under the Tree Ordinance (Section 12.64 of the City Code). Heritage trees are defined as any tree in good condition with a trunk circumference of 100 inches (~32 inches diameter) or more at 4.5 feet from the ground (DBH), any native oak (*Quercus* sp.), sycamore (*Platanus racemosa*), or buckeye (*Aesculus californica*) with a single or cumulative trunk circumference of 36 inches (total diameter of ~11 inches) or greater, any tree 36 inches in circumference (~11 inches DBH) or greater in a riparian zone, and any tree, grove of trees, or woodland trees designated by resolution of the City Council to be of special historical or environmental value or of significant community benefit. The riparian zone is measured from the centerline of the water course to 30 feet beyond the high water line. A Tree Permit is required prior to removal, pruning, or disturbance of a Heritage tree.

2.1.13 City of Elk Grove Tree Ordinance:

The City of Elk Grove regulates the removal, pruning, and impacts to protected trees under the Tree Preservation and Protection Ordinance (Chapter 19.12 of the Municipal Code). Protected trees include any trees of the following species with a single trunk or multi-trunked trees with a combined DBH of six inches or greater: coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), oracle oak (*Quercus* X *morehus*), California sycamore (*Platanus racemosa*), and California black walnut (*Juglans hindsii*). Additionally, designated Landmark trees, trees in the right-of way or on city property, and trees previously retained during development review or planted as mitigation, are protected. The critical root zone is defined as 1-foot outside the dripline of the tree. Typically, a permit is required prior to removal, pruning, or disturbance within the root zone of any protected tree.

2.2 Studies Required

2.2.1 Literature Search

Available information pertaining to the natural resources of the region was reviewed. All references reviewed for this assessment are listed in **Section 6.0**. The following site-specific information was reviewed:

- California Department of Fish and Wildlife. 2015. California Natural Diversity Data Base (CNDDB: *Florin, Bruceville, Carmichael, Clarksburg, Courtland, Elk Grove, Galt, Sacramento East, and Sacramento West* quadrangles), Sacramento, CA. [Accessed 12/02/2015] (**Appendix A**);
- California Native Plant Society. 2015. Inventory of Rare and Endangered Plants (online edition, v8-01a) (CNPS: *Florin, Bruceville, Carmichael, Clarksburg, Courtland, Elk Grove, Galt, Sacramento East, and Sacramento West* quadrangles). [Accessed 12/02/2015] (**Appendix B**); and
- U.S. Fish and Wildlife Service. 2015. *Information for Planning and Conservation (IPaC) Trust Resource Report: My Project, Sacramento County, CA*. [Accessed 12/02/2015] (**Appendix C**).

2.2.2 Personnel and Survey Date

Foothill Associates' principal biologist Meredith Branstad and senior biologist Kelly Bayne, M.S., conducted biological surveys, arborist surveys, and wetland delineations on October 7, 9, and 13, 2015, November 3, 2015 and December 1 and 17, 2015. Both biologists have over ten years of biological experience.

The delineations consisted of mapping wetlands and waterways within the BSA. Soil, vegetative, and hydrological data were recorded. The results of the wetland delineation are summarized herein and are discussed in detail under a separate cover (Foothill Associates 2015).

The arborist surveys consisted of mapping all oak trees within the BSA regardless of DBH. The report is contained under a separate cover (Foothill Associates 2016).

2.2.3 Survey Methods

Biological surveys were conducted to characterize general biological resources and to determine the potential for sensitive biological resources to occur within the BSA. The project footprint and vicinity were surveyed on foot and the habitat types present were characterized and mapped. Habitat types within the BSA were assessed for their potential to support special-status plant and wildlife species. Plant species observed within the BSA that are designated as invasive by the California Invasive Plant Council (Cal-IPC), or as noxious weeds by the California Department of Food and Agriculture (CDFA) were noted during the biological surveys.

2.2.4 Agency Coordination and Professional Contacts

Prior to fieldwork, the U.S. Fish and Wildlife Service (USFWS) was contacted on October 1, 2015 to obtain a list of potentially occurring federal-listed species for the project (USFWS

2015a); the CNPS was contacted on October 1, 2015 to obtain a list of special-status plants that occur on the *Florin* quadrangle and eight surrounding quadrangles (CNPS 2015a); and the California Natural Diversity Database (CNDDB) was contacted on October 1, 2015 to obtain a list of special-status species documented on the *Florin* quadrangle and eight surrounding quadrangles (CDFW 2015a). These agencies were contacted again and the lists were updated on December 2, 2015 (USFWS 2015b; CNPS 2015b; and CDFW 2015b).

2.2.5 Limitations That May Influence the Results

Due to the time of year the survey was conducted, no protocol-level floristic surveys were performed.

3.1 Description of the Existing Biological and Physical Conditions

The BSA is located in Township 7 North South, Range 5 East, and Sections 21 and 28 of the U.S. Geological Survey (USGS) 7.5-minute *Florin, California* quadrangle Mount Diablo Baseline and Meridian. The approximate centroid of the PIA is 38° 26' 17.783" North, 121° 26' 4.170" West, NAD 83 State Plane California Zone III (U.S. feet). The BSA is bordered by residential communities to the east, south, and west and John Ehrhardt Elementary School further to the south. Laguna Creek borders the BSA to the north and north of the creek is a residential community.

3.2 Study Area

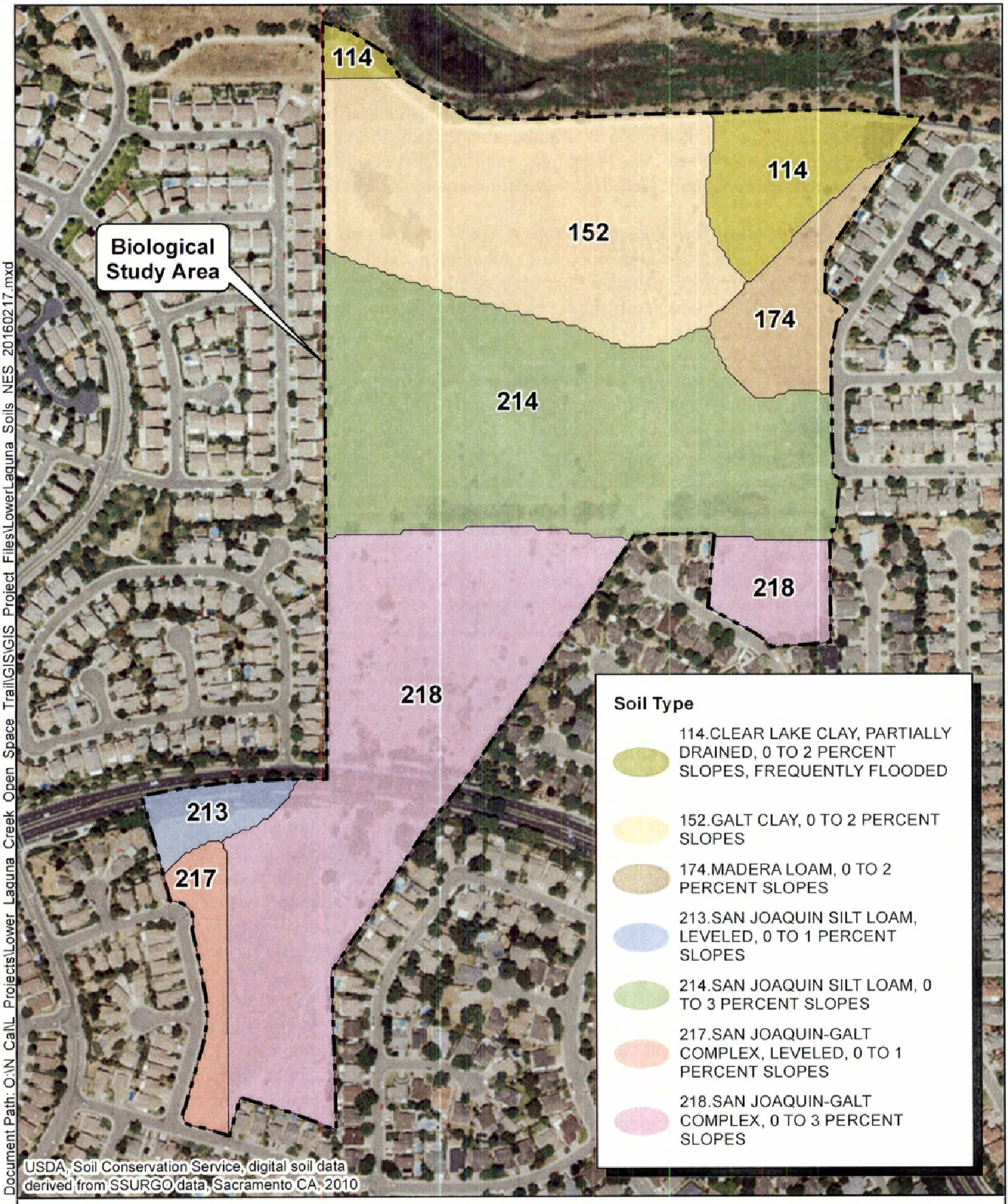
The BSA comprises approximately 58.4 acres and includes two existing preserves to the north of Big Horn Boulevard and a vacant parcel to the south of Big Horn Boulevard. The northern preserve, the North Laguna Creek Wildlife Area, is managed under the conditions set forth in the project 404 permit and the *Laguna Creek Assessment District Final Wetland Mitigation Plan* (USACOE 1987). The central parcel is managed under the *Laguna Springs Unit 2, Open Space Preserve Operations and Maintenance Plan* (Marcus H. Bole & Associates 2011).

The BSA was chosen because it encompasses the footprints of all seven alternatives. This is considered the maximum distance that project impacts on biological resources could be expected, except in the instance of raptors, including Swainson's hawk (*Buteo swainsoni*), which could nest within the riparian vegetation along Laguna Creek to the north of the BSA. These potential impacts are discussed below in further detail.

3.3 Physical Conditions

The BSA is within the Sacramento Valley subregion of the Great Valley region of the California Floristic Province. This subregion comprises the northern, smaller, wetter, cooler area of the Great Valley region, which extends from near Red Bluff in Tehama County to the salt marshes of Suisun Slough in southwestern Solano County. Annual average precipitation is approximately 17 to 18 inches and primarily falls between October and April (WeatherDB 2015). The topography within the BSA is relatively flat with very little rise in elevation across the entire site. The elevation ranges from approximately 20 to 30 feet above mean sea level (MSL). The BSA experiences high pedestrian traffic due to several unpaved trails that were observed during surveys and seen on aerial imagery (GoogleEarth 2015). Several large areas within the non-native annual grassland have been recently burned as a result of spot fires.

The BSA is comprised of seven soil types: **Clear Lake Clay, Partially Drained, 0 to 2 Percent Slopes, Frequently Flooded**; **Galt Clay, 0 to 2 Percent Slopes**; **Madera Loam, 0 to 2 Percent Slopes**; **San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes**; **San Joaquin Silt Loam, 0 to 3 Percent Slopes**; **San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes**; and **San Joaquin-Galt Complex, 0 to 3 Percent Slopes**. General characteristics and properties associated with these soils are described below (USDA, NRCS 1974 and 2015a) (**Figure 4**).



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LOWER LAGUNA CREEK OPEN SPACE TRAIL SOIL TYPES

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING + PLANNING + LANDSCAPE ARCHITECTURE

N

0 175 350
Feet
1 inch = 350 feet

Drawn By: MUB
Date: 02/17/2016

FIGURE 4

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- **(114) Clear Lake Clay, Partially Drained, 0 to 2 Percent Slopes, Frequently Flooded**: Clear Lake Clay soils are poorly drained soils that are frequently flooded with high runoff located within basin floors. The parent material for this soil is alluvium. The hydric soils list for Sacramento County identifies this soil unit as hydric (USDA, NRCS 2015b).

- **(152) Galt Clay, 0 to 2 Percent Slopes**: Galt Clay consists of alluvium derived from granite located in terraces from 10 to 150 feet above MSL. This soil unit is moderately well-drained with a high runoff class and is considered a soil that supports farmland of statewide importance. The hydric soils list for Sacramento County identifies this soil unit as hydric (USDA, NRCS 2015b).

- **(174) Madera Loam, 0 to 2 Percent Slopes**: Madera Loam is a moderately well-drained soil located on terraces and in drainage ways from 20 to 250 feet above MSL. This parent material for this soil unit is alluvium derived from granite. The soil unit has a high runoff class and low available water storage. The hydric soils list for Sacramento County identifies this soil type as hydric (USDA, NRCS 2015b).

- **(213) San Joaquin Silt Loam, Leveled, 0 to 1 Percent Slopes**: This soil unit is found on terraces and depressions from 20 to 500 feet above MSL. The soil unit is moderately well-drained with a high runoff class and low available water storage profile. The parent material for this soil unit is alluvium derived from granite. The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

- **(214) San Joaquin Silt Loam, 0 to 3 Percent Slopes**: This soil unit is found on terraces and depressions from 50 to 500 feet above MSL. The soil unit is moderately well drained with a low available water storage profile and low capacity to transmit water. The parent material for this soil unit is alluvium derived from granite. The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

- **(217) San Joaquin-Galt Complex, Leveled, 0 to 1 Percent Slopes**: This soil unit is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45%), Galt soils (40%), and other minor soil components (15%). The soil unit is moderately well-drained with a very low available water storage profile and very high runoff class. The parent material for this soil unit is alluvium derived from granite. The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

- **(218) San Joaquin-Galt Complex, 0 to 3 Percent Slopes**: This soil unit is found on terraces from 20 to 500 feet above MSL. The San Joaquin-Galt Complex is composed of San Joaquin soils (45%), Galt soils (40%), and other minor soil components (15%). This soil unit is moderately well-drained with a high runoff class and low available water storage profile. The parent material for this soil unit is alluvium derived from granite. The Sacramento County hydric soils list identifies this soil unit as hydric (USDA, NRCS 2015b).

3.4 Biological Conditions in the Biological Study Area

The following terrestrial biological communities occur within the BSA: non-native annual grassland, oak woodland, eucalyptus grove, landscaped/ornamental, and ruderal/developed areas. The following aquatic features occur within the BSA: constructed vernal pool and depressional

seasonal wetland. These biological communities are illustrated on **Figure 5** and are discussed in detail below.

3.4.1 Biological Communities

Non-native annual grassland occurs throughout the BSA. Non-native annual grassland is characterized primarily by an assemblage of non-native grasses and herbaceous species. Scattered patches of coyote brush (*Baccharis pilularis*) are present throughout the non-native annual grassland. Dominant vegetation observed within the BSA includes: ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), medusahead (*Elymus caput-medusae*), yellow star-thistle (*Centaurea solstitialis*), and soft chess (*Bromus hordeaceus*). This habitat is highly-disturbed demonstrating evidence of human disturbance, including pedestrian and off-road non-vehicular traffic, trash, and fire damage.

Eucalyptus grove habitat occurs in two small areas within the BSA. Eucalyptus grove consists primarily of eucalyptus (*Eucalyptus* sp.) trees. This habitat has an affinity to good drainage, low salinity, and a soil depth of two or more feet (Cal-IPC 2015). The eucalyptus groves are densely packed in two small clusters within the northern area of the BSA. The eucalyptus trees within the grove are in poor condition due to fire scars and burned foliage associated with recent spot fires. Minimal understory vegetation is present and consists of grasses and forbs as categorized under the Non-Native Annual Grassland biological community.

Oak woodland habitat occurs in the central and southern parcel of the BSA. The oak woodland is dominated by valley oaks, with a few interior live oaks. The understory consists of small oak saplings and grasses and forbs as categorized under the Non-Native Annual Grassland biological community.

Landscaped/ornamental habitat occurs along the central portion of the BSA along Big Horn Boulevard. Dominant vegetation includes: London planetree (*Platanus* X *acerifolia*) and crape myrtle (*Lagerstroemia indica*).

Ruderal/developed areas occur mainly within the central portion of the BSA along Big Horn Boulevard. Ruderal/developed areas within the BSA include municipal utilities/historical landmarks, buildings, paved roads, sidewalks, and graded paths. Limited vegetation observed along disturbed unpaved areas include: yellow star-thistle and medusahead.

Constructed vernal pools occur along the central portion of the BSA. Vernal pools are shallow, seasonally inundated depressional wetlands that form in soils with a subsurface layer that restricts the downward flow of water. The constructed vernal pools within the BSA are located on a terrace in the non-native grassland of the Laguna Space Unit 2 Preserve. The vernal pools were constructed to compensate for 2.9 acres of waters of the U.S. impacted from development of a residential community. Dominant vegetation observed within these vernal pools includes: Mediterranean barley (*Hordeum marinum*) and ryegrass. The pools are generally 12-24 inches in depth with relatively steep sides.


Deepdale Way
Fieldale Dr
Chesterbrook D
Dunstan Pl
Kepler Ct
Steadman Pl
Brockenhurst Dr
Anchor Bay Way
Harborside Way
Greybridge Ct
Big Horn Blvd
Hiddenspring W
Oxford
Elk Spring Way
Other Features
Biological Study Area
Project Impact Area
Limit of Permanent Disturbance - 5.0
Limit of Temporary Disturbance - 6.8
Legend
Biological Communities
Non-Native Annual Grassland (51.77 Acres)
Eucalyptus Grove (1.04 Acres)
Oak Woodland (0.91 Acres)
Depressional Seasonal Wetland (0.75 Acres)
Vernal Pool (0.18 Acres)
Temporary Impacts
Non-Native Annual Grassland (4.54 Acres)
Eucalyptus Grove (0.85 Acres)
Oak Woodland (0.17 Acres)
Ornamental Landscaping (0.18 Acres)
Permanent Impa
Non-Native Grassland
Eucalyptus Acres)
Oak Woodl Acres)
Ornamenta Landscapir Acres)

Depressional seasonal wetlands occur within the BSA. Seasonal wetlands are those depressions or topographic folds within the topography that inundate or flow for short periods of time following intense rains, but do not maintain seasonal aquatic or saturated soils conditions for durations long enough for colonization by perennial, obligate plant species. These features occur throughout the BSA. The depressional seasonal wetlands within the BSA are very shallow. Dominant vegetation observed within the depressional seasonal wetlands include: Mediterranean barley and ryegrass.

3.5 Wildlife and Wildlife Corridors

The BSA provides low quality habitat for most wildlife species because of the overall lack of vegetation cover and the high levels of disturbed and developed areas. Species observed foraging within the BSA include: western scrub jay (*Aphelocoma californica*), red-winged blackbird (*Agelaius phoeniceus*), Brewer's blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), white-tailed kite (*Elanus leucurus*), and red-tailed hawk (*Buteo jamaicensis*).

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 BSA is not part of a major or local wildlife corridor/travel routes because it does not connect two significant habitats. The BSA is surrounded by residential development and paved trails and roads. In addition, Big Horn Boulevard crosses west to east through the southern portion of the BSA, which also acts as a barrier to wildlife dispersal.

3.6 Regional Species and Habitats of Concern

The biological communities present within the BSA are common throughout the local area and region. There are no natural plant communities present within the BSA.

A review of regionally occurring special-status species was compiled based on

California Department of Fish and Wildlife. 2015. California Natural Diversity Data Base (CDFW 2015a and 2015b) query of special-status species documented on the *Florin* quadrangle and eight surrounding quadrangles (**Appendix A**), CNPS Ranking List (2015a and 2015b) of special-status plants on the *Florin* quadrangle and eight surrounding quadrangles (**Appendix B**), and the USFWS (2015a and 2015b) list of federally-listed species with the potential to occur within the BSA (**Appendix C**).

Table 1 below identifies the special-status species based on the database searches, along with their listing status, habitat requirements, and a rationale as to whether the species would potentially occur within the BSA (HP) or have no potential for occurrence (None). The majority of the special-status species do not have the potential to occur within the BSA due to lack of suitable habitat. No critical habitat is designated within the BSA.

Table 1 — Regionally Occurring Special-Status Species

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Plants			
Ahart's dwarf rush *Juncus leiospermus* var. *ahartii*	--; --; --; 1B	Annual herb found in mesic areas in valley and foothill grassland from 30 to 229 meters. Blooming period: April – August.	**None**; the BSA occurs outside of the known extant elevation range for this species.
Boggs Lake hedge-hyssop *Gratiola heterosepala*	--; CE; --; 1B	Annual herb found on clay soils around the lake margins of marshes and swamps and in vernal pools from 10 to 2,375 meters. Blooming period: April – August.	**HP**; the constructed vernal pools within the BSA provide habitat for this species. Two CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	--; --; --; 2B	Perennial herb found in marshes and swamps and coastal, fresh, or brackish water from 0 to 200 meters. Blooming period: July –September.	**None**; the BSA does not provide habitat for this species.
Bristly sedge *Carex comosa*	--; --; --; 2B	Perennial rhizomatous herb found on coastal prairie, marshes and swamps, occasionally along the lake margins, and valley and foothill grassland from 0 to 625 meters. Blooming period: May – September.	**HP**; the non-native annual grassland within the BSA provides habitat for this species.
Delta mudwort *Limosella subulata*	--; --; --; 2B	Perennial stoloniferous herb usually found in mud banks, marshes and swamps, which are occasionally fresh or brackish, and riparian scrubs from 0 to 3 meters. Blooming period: May-August.	**None**; the BSA does not provide habitat for this species.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	--; --; --; 1B	Perennial herb found in marshes and swamps, which are occasionally freshwater and brackish, from 0 to 5 meters. Blooming period: May – September.	**None**; the BSA does not provide habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Dwarf downingia *Downingia pusilla*	--; --; --; 2	Annual herb found occasionally in mesic areas within valley and foothill grassland and vernal pools from 1 to 445 meters. Blooming period: March – May.	**HP**; the constructed vernal pools and the non-native annual grassland within the BSA provide habitat for this species. Three CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Ferris' goldfields *Lasthenia ferrisiae*	--; --; --;4.2	Annual herb found primarily on alkaline and clay soil in vernal pools from 20 to 700 meters. Blooming period: February- May.	**None**; the BSA occurs outside of the known extant elevation range for this species.
Ferris' milk-vetch *Astragalus tener* var. *ferrisiae*	--; --; --;1B	Annual herb found in meadows and seeps, which are occasionally vernally mesic, and valley and foothill grassland, which are occasionally found on subalkaline flats from 2 to 75 meters. Blooming period: April- May.	**HP**; the non-native annual grassland within the BSA provides habitat for this species.
Heckard's pepper-grass *Lepidium latipes* var. *heckardii*	--; --; --;1B	Annual herb found primarily on alkaline flats in valley and foothill grassland from 2 to 200 meters. Blooming period: March-May.	**HP**; the non-native annual grassland within the BSA provides habitat for this species.
Hoary navarretia *Navarretia eriocephala*	--; --; --;4.3	Annual herb found on vernally mesic areas in cismontane woodland and valley and foothill grassland from 105 to 400 meters. Blooming period: May-June.	**None**; the BSA occurs outside of the known extant elevation range for this species.
Hogwallow starfish *Hesperevax caulescens*	--; --; --;4.2	Annual herb primarily found on mesic, clay soils, sometimes found on alkaline soil, in valley and foothill grassland and in shallow vernal pools from 0 to 505 meters. Blooming period: March-June.	**HP**; the constructed vernal pools and non-native annual grassland within the BSA provide habitat for this species.
Legenere *Legenere limosa*	--; CT; --; 1B	Annual herb found in vernal pools from 1 to 880 meters. Blooming period: April – June.	**HP**; the constructed vernal pools within the BSA provide habitat for this species. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Marsh skullcap *Scutellaria galericulata*	--; --; --;2B	Perennial rhizomatous herb found in lower montane coniferous forests, meadows and seeps, which are occasionally mesic, and marshes and swamps from 0 to 2,100 meters. Blooming period: June- September.	**None**; the BSA does not provide habitat for this species.
Mason's lilaeopsis *Lilaeopsis masonii*	--; --; --;1B	Perennial rhizomatous herb found in marshes and swamps, which are occasionally brackish or freshwater, and riparian scrub from 0 to 10 meters. Blooming period: April-November.	**None**; the BSA does not provide habitat for this species.
Northern California black walnut *Juglans californica* var. *hindsii*	--; --; --;1B	Perennial deciduous tree found in riparian forests and riparian woodlands from 0 to 440 meters. Blooming period: April-May.	**None**; the BSA does not contain Northern California black walnut trees.
Parry's rough tarplant *Centromadia parryi* ssp. *rudis*	--; --; --;4.2	Annul herb found on alkaline soils, which are vernally mesic, seeps, sometimes roadsides, in valley and foothill grassland and vernal pools from 0 to 100 meters. Blooming period: May-October.	**None**; the BSA does not contain suitable soils required for this species.
Peruvian dodder *Cuscuta obtusiflora* var. *glandulosa*	--; --; --;2B	Annual vine, which is occasionally parasitic, found in marshes and swamps, which are occasionally freshwater, from 15 to 280 meters. Blooming period: July-October.	**None**; the BSA does not provide habitat for this species.
Sacramento orcutt grass *Orcuttia viscida*	FE; CE; --; 1B	Annual herb found in vernal pools from 30 to 100 meters. Limited to a narrow zone of remnant depositional stream terraces at the base of the Sierran foothills in Northern hardpan and northern volcanic mudflow vernal pools on high-terrace vernal pools that range in area from 0.25 acres to 2.03 acres (USFWS 2009). Blooming period: April – September.	**None**; the constructed vernal pools within the BSA are not large enough to be considered habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Saline clover *Trifolium hydrophilum*	--; --; --;1B	Annual herb found in marshes and swamps, valley and foothill grassland, which are occasionally mesic and alkaline, and vernal pools from 0 to 300 meters. Blooming period: April-June.	**HP**; the constructed vernal pools and the non-native annual grassland within the BSA provide habitat for this species. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Sanford's arrowhead *Sagittaria sanfordii*	--; --; --; 1B	Perennial rhizomatous herb found in marshes and swamps in assorted shallow freshwater areas from 0 to 650 meters. Blooming period: May – October.	**None**; the BSA does not provide habitat for this species. Fourteen CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Side-flowering skullcap *Scutellaria lateriflora*	--; --; --;2B	Perennial rhizomatous herb found primarily on mesic soils in meadows and seeps and in marshes and swamps from 0 to 500 meters. Blooming period: July-September.	**None**; the BSA does not provide habitat for this species.
Slender orcutt grass *Orcuttia tenuis*	FT; CE; --; 1B	Annual herb found in vernal pools that are often gravelly, from 35 to 1,760 meters. Blooming period: May – October.	**None**; the BSA occurs outside of the known extant elevation range for this species.
Suisun Marsh aster *Symphyotrichum lentum*	--; --; --; 1B	Perennial rhizomatous herb found in marshes and swamps with brackish and freshwater from 0 to 3 meters. Blooming period: April – November.	**None**; the BSA does not provide habitat for this species.
Watershield *Brasenia schreberi*	--; --; --; 2B	Perennial rhizomatous herb found in marshes and swamps with freshwater from 30 to 2,200 meters. Blooming period: June – September.	**None**; the BSA does not provide habitat for this species.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	--; --; --; 1B	Perennial rhizomatous herb found in marshes and swamps with freshwater often on riprap and sides of levees from 0 to 120 meters. Blooming period: June – September.	**None**; the BSA does not provide habitat for this species. Six CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Invertebrates			
California linderiella *Linderiella occidentalis*	--; --; --; --	Found in vernal pools, swales, and ephemeral freshwater habitat.	**HP**; the constructed vernal pools and seasonal wetlands within the BSA provide habitat for this species. Seven CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Midvalley fairy shrimp *Branchinecta mesovallensis*	--; --; --; --	Found in vernal pools, swales, and ephemeral freshwater habitat.	**HP**; the constructed vernal pools and seasonal wetlands within the BSA provide habitat for this species. Seven CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT; --; --; --	Sole hosts are elderberry (*Sambucus* sp.) shrubs usually associated with riparian areas.	**None**; the BSA does not contain elderberry shrubs.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT; --; --; --	Found in vernal pools, swales, and ephemeral freshwater habitat.	**HP**; the constructed vernal pools and seasonal wetlands within the BSA provide habitat for this species. Four CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Vernal pool tadpole shrimp *Lepidurus packardi*	FE; --; --; --	Found in vernal pools, swales, and ephemeral freshwater habitat.	**HP**; the constructed vernal pools and seasonal wetlands within the BSA provide habitat for this species. Ten CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Amphibians/Reptiles			
California red-legged frog *Rana draytonii*	FT; CSC; --; --	Requires a permanent water source and is typically found along quiet, slow-moving streams, ponds, or marsh communities with emergent vegetation. Believed extirpated from the Central Valley floor since 1970s.	**None**; the BSA does not provide habitat for this species.
California tiger salamander *Ambystoma californiense*	FT; CT; --; --	Ponded water required for breeding. Adults spend summer in small mammal burrows. This species is not known to occur within El Dorado County.	**None**; the BSA does not provide habitat for this species.
Giant garter snake *Thamnophis gigas*	FT; CT; --; --	Found in 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). This species is known from Sacramento, Sutter, Butte, Colusa, and Glenn counties.	**HP**; although the BSA does not provide habitat, this species is known to occur within Lower Laguna Creek to the north of the BSA. Although it is unlikely that this species would move beyond the upper banks of the creek, overland movement could occur southward over the existing trail and into the BSA. Seven CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b). However, three are considered likely extirpated due to the heavy residential development in the area. The nearest extant occurrence is number 14 from 1975, which is located approximately 0.5 miles east of the BSA.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Western pond turtle *Emys marmorata*	--; CSC; --; --	Agricultural wetlands and other wetlands such as irrigation and drainage canals, low gradient streams, marshes, ponds, sloughs, small lakes, and their associated uplands.	**None**; the BSA does not provide habitat for this species. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Western spadefoot *Spea hammondii*	--; CSC; --; --	Found in open grasslands and woodlands. Requires vernal pools or seasonal wetlands for breeding. Known from Alameda, Butte, Calaveras, Colusa, Fresno, Glenn, Kern, Kings, Los Angeles, Madera, Mariposa, Merced, Monterey, Orange, Placer, Riverside, Sacramento, San Benito, San Diego, San Joaquin, San Luis Obispo, Santa Barbara, Siskiyou, Stanislaus, Tehama, Tulare, Ventura and Yolo counties.	**None**; although the constructed vernal pools and seasonal wetlands provide marginal habitat, the BSA occurs outside of the known geographic range for this species.
Fish			
Central Valley steelhead *Oncorhynchus mykiss*	FT; --; --; --	Inhabits rivers and streams tributary to the Sacramento-San Joaquin Rivers and Delta ecosystems.	**None**; the BSA does not provide habitat for this species.
Chinook salmon – Central Valley spring run *Oncorhynchus tshawytscha*	FT; CT; --; --	Spawn in Mill, Deer, and Butte Creeks and in Yuba River and Feather River watersheds. Juveniles may journey up to 5 miles upstream in Sacramento River tributaries.	**None**; the BSA does not provide habitat for this species.
Chinook salmon – Sacramento River winter run *Oncorhynchus tshawytscha*	FE; CE; --; --	Spawn in northern Sacramento River (Redding to Red Bluff) and its tributaries. Juveniles may journey up to 5 miles upstream in other tributaries.	**None**; the BSA does not provide habitat for this species.
Delta smelt *Hypomesus transpacificus*	FT; CE; --; --	Inhabits shallow fresh or brackish water tributary to the Delta ecosystem; spawns in freshwater sloughs and channel edgewaters. Known almost exclusively in the Fresno-San Joaquin estuary.	**None**; the BSA does not provide habitat for this species.
Longfin smelt *Spirinchus thaleichthys*	FC; CT; --; --	Inhabits estuaries and bays in the Delta and Sacramento-San Joaquin Rivers. Migrate to freshwater to spawn.	**None**; the BSA does not provide habitat for this species.
Sacramento perch *Archoplites interruptus*	--; CSC; --; --	Inhabits flowing and standing waters in the Sacramento-San Joaquin Rivers and their streams and tributaries.	**None**; the BSA does not provide habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Sacramento spittail *Pogonichthys macroepidotus*	--; CSC; --; --	Inhabits the streams and tributaries of the Sacramento-San Joaquin Rivers in estuaries, marshes, and freshwater.	**None**; the BSA does not provide habitat for this species.
Birds			
Bald eagle *Haliaeetus leucocephalus*	FD; CFP, CE; --; --	Breeding habitat most commonly includes areas within 2.5 miles (4.0 kilometers) of coastal areas, bays, rivers, lakes, and reservoirs. Nests usually are in tall trees or on pinnacles or cliffs near water.	**None**; the BSA is not within 2.5 miles of any coastal areas, bays, rivers, lakes, or reservoirs, and the trees within the BSA do not provide breeding habitat.
Bank swallow *Riparia*	--; CT; --; --	Nests in riverbanks and forages over riparian areas and adjacent uplands.	**None**; the BSA does not provide nesting habitat for this species.
Burrowing owl *Athene cunicularia*	--; CSC; --; -- (burrowing sites and some wintering sites)	Nests in burrows in the ground, often in old ground squirrel burrows or badger, within open dry grassland and desert habitat. The burrows are found in dry, level, open terrain, including prairie, plains, desert, and grassland with low height vegetation for foraging and available perches, such as fences, utility poles, posts, or raised rodent mounds.	**HP**; the non-native annual grassland provides habitat for this species. Twelve CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Golden eagle *Aquila chrysaetos*	--; CFP; --; -- (nesting and wintering)	Open and semi-open areas up to 12,000 feet in elevation. Builds stick nests on cliffs, in trees, or on man-made structures.	**None**; the BSA does not provide habitat for this species.
Least Bell's vireo *Vireo bellii pusillus*	FE; CE; --; --	Found in dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak in arid regions, usually nearby water and in moist woodland, bottomlands, woodland edge, scattered cover and hedgerows in cultivated areas. Known from Imperial, Inyo, Kern, Los Angeles, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Santa Clara, Stanislaus, Ventura, and Yolo counties.	**None**; the BSA occurs outside of the known extant geographical range for this species.
Purple martin *Progne subis*	--; CSC; --; --	Often nests in tall, old trees near body of water in woodland and conifer habitats.	**None**; the BSA does not provide nesting habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
Song sparrow *Melospiza melodia*	--; CSC; --; -- (Modesto population)	Found in a wide range of habitats including forest, shrub, and riparian habitat. Breed from April to July and nest in low grasses and shrubs building open cup nests.	**None**; the BSA does not provide nesting habitat for this species. Five CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Swainson's hawk *Buteo swainsoni*	--; CT; --; --	Nest peripherally to Valley riparian systems lone trees or groves of trees in agricultural fields. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley. This species is known from Alameda, Butte, Colusa, Contra Costa, Fresno, Glenn, Inyo, Kern, Kings, Lassen, Los Angeles, Madera, Merced, Modoc, Mono, Napa, Placer, Plumas, Sacramento, San Bernardino, San Joaquin, San Luis Obispo, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties.	**HP**; the non-native annual grassland within the BSA provides foraging habitat and the trees within the eucalyptus grove provide nesting habitat for this species. Forty-nine CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Tricolored blackbird *Agelaius tricolor*	--; CSC; --; -- (nesting colony)	Nests in dense blackberry, cattail, tules, bulrushes, sedges, willow, or wild rose within freshwater marshes. Nests in large colonies of at least 50 pairs (up to thousands of individuals).	**HP**; although the non-native annual grassland provides foraging habitat, the BSA does not provide nesting habitat for this species. Nine CNDDB occurrences are documented within 5 miles of the BSA. One of the occurrences is within the BSA (CDFW 2015b).
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT; CT; --; --	Breeding habitat is usually deciduous riparian woodland, especially including dense stands of cottonwood and willow. Nests are placed in a dense cover of trees, shrubs, or vines.	**None**; the BSA does not provide nesting habitat for this species.

Special-Status Species	Regulatory Status (Federal; State; Local; CNPS)	Habitat Requirements	Potential for Occurrence with the BSA
White-tailed kite *Elanus leucurus*	--; CFP; --; -- (nesting)	Nests in isolated trees or woodland areas with suitable open foraging habitat.	**HP**; the trees within the oak woodland, non-native annual grassland, ornamental landscaping, and eucalyptus grove provide nesting habitat for this species and an individual was observed foraging on the site. Two CNDDB occurrences are documented within 5 miles of the BSA (CDFW 2015b).
Yellow-headed blackbird *Xanthocephalus*	--; CSC; --; --	Nesting colony located in dense emergent wetland of cattails, tules, and other plants often along the border of a lake or pond.	**None**; the BSA does not provide nesting habitat for this species. One CNDDB occurrence is document within 5 miles of the BSA (CDFW 2015b).
Mammals			
American badger *Taxidea taxus*	--; CSC; --; --	Found in a variety of grasslands, shrublands, and open woodlands throughout California.	**HP**; the non-native annual grassland provides habitat within the BSA.

BSA Potential	**Federally-Listed Species:**	**California State Listed Species:**	**CNPS* Rank Categories:**
A = Absent – no habitat present and no further work needed.	FE = federal endangered FT = federal threatened	CFP = California fully protected	1A = plants presumed extinct in California
HP = Habitat Present – habitat is, or may be present.	FPD = proposed for delisting	CE = California state endangered	1B = plants rare, threatened, or endangered in California and elsewhere
P = Present – the species is present.	FC = candidate FD = delisted	CT = California state threatened	2 = plants rare, threatened, or endangered in California, but common elsewhere
	CH = Critical Habitat	CR = California state rare	3 = plants about which we need more information
Source: Foothill Associates		CSC = California species of special concern	4 = plants of limited distribution

This section identifies species with the potential to occur, potential impacts, and avoidance and minimization measures. Temporary and permanent impacts to habitat types are summarized in **Table 2**.

Table 2 — Temporary and Permanent Impacts by Habitat Type

Biological Community	Within the BSA (Acreage)	Temporary Impacts (Acreage)	Permanent Impacts (Acreage)
Non-Native Annual Grassland	51.63	4.54	3.76
Eucalyptus Grove	1.40	0.85	0.09
Oak Woodland	0.53	0.17	0.29
Depressional Seasonal Wetland	0.75		
Vernal Pool	0.18		--
Ornamental Landscaping	0.98	0.18	0.14
Developed/Disturbed	2.90	0.74	0.66
Total	**58.37**	**6.48**	**4.94**

4.1 Natural Communities of Special Concern

Under CEQA, a project that substantially adversely affects any riparian habitat or other sensitive natural community (SNC) identified in local or regional plans, policies, regulations, or by CDFW or USFWS, will have an impact on the environment. For this NES, the term "sensitive natural community" includes those communities that, if eliminated or substantially degraded, would sustain a significant adverse impact as defined under CEQA. These community types are important, as further degradation and destruction threatens these community types as well as associated populations of dependent plant and wildlife species and significantly reduces their regional distribution and viability. The CDFW (2015b) identifies the following SNCs within five miles of the PIA: Coastal and Valley Fresh Water Marsh, Elderberry Savanna, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest, Northern Hardpan Vernal Pool, and Valley Oak Woodland. Wetlands and waters of the U.S. are also considered sensitive by both federal and State agencies.

4.1.1 Valley Oak Woodland

Valley oak woodland occurs within the BSA.

Survey Results

Approximately 0.53 acres of valley oak woodland occur within the BSA. Of the 0.53 acres, 0.17 acres would be temporarily impacted and 0.29 acres would be permanently impacted. Although the eucalyptus trees within the eucalyptus grove contain trees with DBHs that meet the City of Sacramento's Tree Ordinance to be considered a Heritage tree, they are non-native trees in poor

condition due to fire scars and burned foliage associated with recent spot fires. Therefore, these trees are not considered protected under the City of Sacramento Tree Ordinance.

Avoidance and Minimization Measures

An Arborist Report has been prepared for all oak trees present within the BSA (Foothill Associates 2016). Protected oak trees will be mitigated in accordance with the City of Elk Grove General Tree Ordinance (Ord. 6-2011 §4, eff. 3-25-2011), as identified within **Section 4.5** below. At minimum, the loss of oak woodland would be mitigated at a 1:1 ratio based on trunk diameter for removal of protected trees.

Project Impacts

By implementing one or more of the avoidance and minimization measures discussed in **Section 4.5**, impacts to oak woodland will be compensated.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance and minimization measures discussed above.

Cumulative Impacts

No cumulative impacts to valley oak woodland will occur as a result of the project due to the implementation of the avoidance and minimization measures discussed above.

4.1.2 Wetlands and Other Waters of the U.S.

Wetlands and other waters of the U.S. are considered sensitive by federal and State agencies.

Survey Results

A delineation was submitted to the USACOE on December 29, 2015. The results are considered preliminary until a Preliminary Jurisdictional Determination is made by the USACOE. Potentially jurisdictional wetlands and other waters of the U.S. present within the BSA include: constructed vernal pools and depressional seasonal wetlands.

Two manmade excavated linear ditches occur within the BSA. Ditches with ephemeral flow that are not a relocated tributary, excavated in a tributary, or drain wetlands are not waters of the U.S. (33 CFR Part 328). Both are clearly constructed as shown by their overall form and the presence of spoil piles along the length of the features. They are constructed entirely in uplands and do not drain wetlands. One feature runs in an east to west direction through the northern portion of the BSA. This feature is likely a remnant irrigation ditch that was constructed for the purpose of conveying irrigation water, but is now cut off from any potentially jurisdictional water sources given that the BSA is surrounded by residential development. This feature lacks an ordinary high water mark to be considered a non-wetland water and lacks the three parameters to be considered a wetland. The other feature was excavated in an east to west direction through the central portion of the BSA. The purpose of this feature is unclear; it may have been excavated to transfer stormwater runoff from the residential development westward to the non-native annual grassland. This feature lacks an ordinary high water mark to be considered a non-wetland water and lacks the three parameters necessary to be considered a wetland. Since they are constructed in and drain only uplands and show neither ordinary high water marks nor wetland

characteristics, neither of these features is considered jurisdictional and they are not shown on **Figure 5**.

A convex, sloped seasonal wetland was formed on the central-western portion of the BSA as a result of year-round irrigation runoff from the adjacent residences. This feature demonstrates the characteristics to classify it as a seasonal wetland, however, in the event that the adjacent water source is terminated, then this feature would no longer be sustained. Artificially irrigated areas that would revert to dry land should application of water to that area cease are not considered waters of the U.S. (33 CFR Part 328). Therefore, this feature is not considered jurisdictional and is not shown on **Figure 5**.

Avoidance and Minimization Measures

The PIA would avoid direct impacts to potentially jurisdictional features. Because the project will not directly fill the constructed vernal pools and seasonal wetlands, no mitigation will be necessary to compensate for direct impacts to potential waters of the U.S. Indirect impacts to the constructed vernal pools and seasonal wetlands could occur during construction activities. The construction of a trail over permeable surfaces will increase surface water flows. Alteration of current inundation due to altered hydrology could alter the characteristics of the vernal pools and seasonal wetlands, resulting in loss or degradation of aquatic habitat. A minimum three-foot buffer comprised of silt fencing along all avoided wetland features will be installed, in accordance with the project description. In addition, linear silt fencing will be established along the northern perimeter of the BSA to avoid impacts to Lower Laguna Creek to the north of the BSA, in accordance with the project description. The following additional measures are required based on current regulatory requirements and would further contribute to avoidance of indirect impacts to the potentially jurisdictional constructed vernal pools and seasonal wetlands:

- The applicant would obtain coverage under the State Water Resources Control Board (SWRCB) Non-Pollutant Discharge Elimination System (NPDES) General Permit, issued by the Regional Water Quality Control Board (RWQCB), and implement water quality Best Management Practices (BMPs) to prevent discharge of pollutants to surface waters during construction. These BMPs will include standard measures for sediment-tracking reduction, such as vehicle washing and street sweeping, and revegetation of all areas disturbed by construction with native species. Therefore, the proposed project would have no indirect impact on wetlands and waters of U.S.
- If the USACOE verifies that the artificial irrigated seasonal wetland and the two manmade excavated linear ditches features are not jurisdictional, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the project result in impacts to these features. 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. A report of waste discharge will be filed for impacts to non-federal waters, if required.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to potentially jurisdictional features will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to potentially jurisdictional features will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.2 Special-Status Plant Species

The following special-status plants have the potential to occur within the BSA: Boggs Lake hedge-hyssop, bristly sedge, dwarf downingia, Ferris' milk-vetch, Heckard's pepper-grass, hogwallow starfish, legenere, and saline clover. These species are discussed in detail below.

4.2.1 Potentially Occurring Plants

Boggs Lake hedge hyssop is ranked as a CNPS 1B species. It is an annual herb found on clay soils along lake margins of marshes and swamps and in vernal pools from 33 to 7,792 feet (10 to 2,375 meters) above MSL. The identification period for this species is from April through August. There are two documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The constructed vernal pools within the BSA provide habitat for this species.

Bristly sedge is ranked as a CNPS 2B species. It is a perennial rhizomatous herb found on coastal prairie, marshes and swamps, occasionally along lake margins, and valley and foothill grassland from 0 to 2,051 feet (0 to 625 meters) above MSL. The identification period for this species is from May through September. There are no documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The non-native annual grassland provides habitat for this species.

Dwarf downingia is ranked as a CNPS 2B species. It is an annual herb occasionally found in mesic areas within valley and foothill grassland and vernal pools from 3 to 1,460 feet (1 to 445 meters) above MSL. The identification period for this species is from March through May. There are three documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The non-native annual grassland and constructed vernal pools provide habitat for this species.

Ferris' milk-vetch is listed as a CNPS 1B species. It is an annual herb found in meadows and seeps, which are occasionally vernally mesic, and valley and foothill grassland, which are occasionally on subalkaline flats, from 7 to 246 feet (2 to 75 meters) above MSL. The identification period for this species is from April through May. There are no documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The non-native annual grassland provides habitat for this species.

Heckard's pepper-grass is listed as a CNPS 1B species. It is an annual herb found primarily on alkaline flats in valley and foothill grassland from 7 to 1,657 feet (0 to 505 meters) above MSL. The identification period for this species is from March through May. There are no documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The non-native annual grassland provides habitat for this species.

Hogwallow starfish is listed as a CNPS 4 species. It is an annual herb found within valley and foothill grassland on mesic and clay sites and within shallow vernal pools from 0 to 1,657 feet (0 to 505 meters) above MSL. The identification period for this species is from March through June. There are no documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The constructed vernal pools and non-native annual grassland provide habitat for this species.

Legenere is ranked as State threatened and CNPS 1B species. It is an annual herb found in vernal pools from 3 to 2,887 feet (1 to 880 meters) above MSL. The identification period for this species is from April through June. There are five documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The constructed vernal pools provide habitat for this species.

Saline clover is ranked as a CNPS 1B species. It is an annual herb found in marshes and swamps, valley and foothill grassland, which are occasionally mesic and alkaline, and vernal pools from 1 to 984 feet (0 to 300 meters) above MSL. The identification period for this species is from April through June. There are five documented CNDDB records of this species occurring within five miles of the BSA (CDFW 2015b). The constructed vernal pools and non-native annual grassland provide habitat for this species.

Survey Results

While none of these special-status plants were observed within the BSA, the October and December 2015 biological surveys were conducted outside of the evident and of the evident and identifiable blooming periods. These species have the potential to occur within the BSA.

Avoidance and Minimization Efforts

Project implementation would avoid permanent direct impacts to the constructed vernal pools, which provides habitat for the state listed legenere and the non-listed Bogg's Lake hedge hyssop. Temporary direct impacts could occur to these species, if determined to be present, through accidental discharge into the constructed vernal pools during construction activities. With implementation of Avoidance and Minimization Measure 4.1.2, which includes obtaining coverage under a NPDES General Permit, and the measures identified within the project description, which include installing a minimum buffer of three feet along all aquatic features, no temporary direct impacts would occur should any of these species be present within the constructed vernal pools.

Project implementation could result in permanent and temporary direct impacts to the non-listed bristly sedge, dwarf downingia, Ferris' milk-vetch, Heckard's pepper-grass, hogwallow, and saline clover. Direct impacts could occur through removal of non-native annual grassland should any of these species be present. Temporary direct impacts could result from the movement of

equipment and workers. One or more of the following measures shall be implemented to avoid or minimize potential project impacts on the non-listed special-status plants:

- A qualified botanist should conduct botanical surveys within the blooming periods for these species within the non-native annual grassland prior to commencement of construction activities. A single botanical survey could be conducted in May to occur within the evident and identifiable blooming periods for all potentially occurring non-listed special-status plants. If no special-status plants are observed, then a letter report documenting the results of the survey should be provided to the project proponent for their records, and no additional measures are recommended.
- If any of the non-listed special-status plants occur within the vicinity of the PIA, they should be avoided to the extent feasible. The plant locations should be identified on a map, and a 10-foot buffer should be established around the plants with high visibility construction fencing. The construction fencing should remain intact until construction is complete.
- 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 footprint, success criteria, and monitoring activities. The CDFW would need to approve the mitigation plan prior to transplantation and commencement of construction activities.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to special-status plants will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to special-status plants will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3 Special-Status Animal Species

The following special-status species have the potential to occur within the BSA: vernal pool branchiopods including: California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp, giant garter snake, burrowing owl, Swainson's hawk, tricolored blackbird, white-tailed kite, and American badger.

4.3.1 Vernal Pool Branchiopods

California linderiella is not a listed species, but is identified on the CDFW Special Animal List. California linderiella is a relatively common branchiopod found in vernal pools, swales, and ephemeral freshwater habitats. There are seven CNDDB occurrences documented within five miles of the BSA (CDFW 2015b). The constructed vernal pools provide habitat and the seasonal

wetlands provide marginal habitat given that the wetlands are so shallow and that the BSA undergoes routine mowing practices.

Midvalley fairy shrimp is not a listed species, but is identified on the CDFW Special Animal List. This species occurs in small, short-lived vernal pools and grass-bottomed swales ranging from 4 to 663 square feet (0.37 to 61.6 square meters) in area and averaging less than 4 inches (10 centimeters) in depth (Helm 1998). The species has been collected from pools on a volcanic mudflow landform of the Merhten Formation in Pentz Gravelly Loam and Raynor Clay soils. The midvalley fairy shrimp has also been found on San Joaquin Silt Loam soils on the Riverbank formation on Low Terrace landforms. There are seven CNDDB occurrences documented within five miles of the BSA (CDFW 2015b). The constructed vernal pools provide habitat and the seasonal wetlands provide marginal habitat given that the wetlands are so shallow and that the BSA undergoes routine mowing practices.

Vernal pool fairy shrimp are listed as Federally Threatened. Vernal pool fairy shrimp are found in vernal pools, swales, and ephemeral freshwater habitats. These species are most commonly found in grassy or mud bottomed pools or basalt flow depression pools in unplowed grasslands. The pools vary in size from over 10 hectares to only 20 square meters. There are four CNDDB occurrences documented within five miles of the BSA (CDFW 2015b). The constructed vernal pools provide habitat and the seasonal wetlands provide marginal habitat given that the wetlands are so shallow and that the BSA undergoes routine mowing practices.

Vernal pool tadpole shrimp are listed as Federally Endangered. Vernal pool tadpole shrimp are found in natural and artificial seasonally ponded habitats including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities. Wetlands range from very small (2 square meters) to very large (356,253 square meters). There are ten CNDDB occurrences documented for this species within five miles of the BSA (CDFW 2015b). The created vernal pools provide habitat and the depressional seasonal wetlands provide marginal habitat given that the seasonal wetlands are extremely shallow and generally characterized by saturation rather than inundation and that the BSA undergoes routine mowing practices.

Survey Results

While none of these vernal pool branchiopods were observed within the BSA, protocol-level wet- and dry-season surveys were not conducted within the constructed vernal pools and seasonal wetlands. These species have the potential to occur within the BSA.

Avoidance and Minimization Efforts

The project has been designed to maintain existing hydrologic connections through maintaining existing grades, using permeable materials, and installing culverts, where necessary. A minimum three-foot exclusion construction buffer along all aquatic resources would be implemented to avoid temporary or direct permanent impacts associated with construction activities. Additionally, the proposed trail alignment is lower in elevation than the top of the banks of the constructed vernal pools, thereby avoiding the potential to alter the hydrology. Although the proposed trail alignment occurs within the micro-watershed of the depressional seasonal wetlands, these features are considered to be marginal habitat due to the relatively short inundation period and saturation-dominated hydrologic regime. Temporary direct impacts could

occur to these species through accidental discharge into the constructed vernal pools and seasonal wetlands during construction activities. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2003) and Site Monitoring Procedures (Caltrans 2013) as well as Avoidance and Minimization Measure 4.1.2, which includes obtaining coverage under a NPDES General Permit, and implementation of the *Lower Laguna Creek Erosion Control Work Plan* (Erosion Control Work Plan). The BMPs detailed within the Erosion Control Work Plan include the following specific measures for avoiding adverse impacts to sensitive habitats:

- Before any ground- or vegetation-disturbing activities are begun, the contractor shall install a temporary fence (Type ESA) to preserve existing vegetation shown to remain and protect Environmentally Sensitive Areas (ESA) at the limit of work;
- Within 50 feet of avoided wetlands, high-visibility silt fencing shall be used as ESA fencing to minimize the transportation of water or air-borne sediment into the wetlands;
- Staging areas will include reinforced temporary construction entrances and protected concrete washout and materials storage facilities as necessary. Additionally, staging areas are located a minimum of 43 feet from the nearest wetland;
- Following the tree and shrub removal any disturbed areas will be stabilized with temporary hydraulic mulch;
- During construction, temporary hydraulic mulch, check dams, and fiber rolls will be placed in advance of predicted rain events in areas under construction;
- As portions of the trail are completed permanent erosion controls comprised of hydroseed, hydromulch, and fiber rolls may be placed along the trail alignment to minimize erosion;
- Following the completion of all grading and paving all equipment and material storage will be removed and staging areas will be repaired to resemble preconstruction conditions;
- Permanent erosion control comprised of hydroseed, hydromulch, and bio-degradable fiber rolls will be applied to the PIA. Native seed mix will be used for all revegetation; and
- Following final stabilization temporary BMPs and the temporary fence will be removed.

Additionally, a Qualified Biologist shall conduct an environmental awareness training to all construction personnel before the start of construction. The training shall include the presence of sensitive habitats, general measures that are being implemented to conserve the species as they relate to the project, penalties for non-compliance, and boundaries of the PIA and of the permitted disturbance zones. Supporting materials containing training information should be prepared and distributed. Upon completion of training, all construction personnel should sign a form stating that they have attended the training and understand all the measures. Proof of this

instruction should be kept on file with the project proponent. The crew foreman should be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. If new construction personnel are added to the site, the crew foreman should ensure that the personnel receive the mandatory training before starting work.

Permanent improvements that will minimize potential future impacts to these species include: construction of a post and cable fence along the perimeter of the trail and education area to reduce unauthorized pedestrian and vehicular use in the preserve and installation of interpretive signage to enhance environmental awareness.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no direct or indirect impacts to vernal pool branchiopods will occur as a result of the project.

Compensatory Mitigation

In order to offset potential indirect effects related to implementation of the Proposed Action, the City of Elk Grove is proposing the replacement of 0.18 acre of indirectly affected vernal pool habitat at a 2:1 ratio (2 acres of preservation for every 1 acre of effect) through the dedication of 0.36 vernal pool preservation credit(s) within a U.S. Fish and Wildlife Service (USFWS)-approved mitigation bank.

Cumulative Impacts

No cumulative impacts to vernal pool branchiopods will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.2 Giant Garter Snake

Giant garter snake inhabits sloughs, marshes, low-gradient streams, flooded rice fields, ponds, irrigation and drainage ditches, and adjacent upland habitats. This snake forages primarily at the interface between open water and emergent aquatic vegetation, and is most often found in habitats with slow flowing or standing water, permanent summer water, mud bottoms, earthen banks, and an abundance of prey such as small fish, frogs, and tadpoles. Giant garter snakes use upland habitat with grassy or shrubby banks for basking and thermoregulation. They also use upland burrows and soil or rock crevices as nighttime refugia, daytime escape cover, and winter aestivation sites. Giant garter snakes typically emerge from winter retreats from late March to early April and can remain active through October. The timing of their annual activities is subject to varying seasonal weather conditions. Cool winter months are spent in dormancy or periods of reduced activity. While this species is strongly associated with aquatic habitats, individuals have been noted using burrows as far as 165 feet from marsh edges during the active season and retreats more than 800 feet from the edge of wetland habitats while overwintering. While the BSA does not provide habitat, this species is known to occur within Lower Laguna Creek to the north of the BSA. Although it is unlikely that this species would move beyond the upper banks of the creek, overland movement could occur southward over the existing trail and into the BSA.

Survey Results

No giant garter snakes were observed during the October and December 2015 biological surveys of the BSA. This species has a low potential to move overland into the northern portion of the BSA from Lower Laguna Creek.

Avoidance and Minimization Efforts

Project implementation could result in permanent direct impacts to giant garter snake. Direct impacts could result from movement of equipment and workers should a giant garter snake be present in the construction footprint. Impacts will be avoided or minimized with implementation of Caltrans' Standard BMPs (Caltrans 2003) and Site Monitoring Procedures (Caltrans 2013), Avoidance and Minimization Measures discussed in **Section 4.1.2**, and implementation of the Erosion Control Work Plan. In addition, one or more of the following measures shall be implemented to avoid or minimize potential project impacts on giant garter snake:

- Twenty-four-hours prior to the commencement of construction activities, the PIA shall be surveyed for giant garter snakes by a USFWS-approved biologist. The biologist will provide the USFWS with a written report that adequately documents the monitoring efforts within 24-hours of commencement of construction activities. The PIA shall be re-inspected by the monitoring biologist whenever a lapse in construction activity of two weeks or greater has occurred;
- A Worker Environmental Awareness Training Program for construction personnel shall be conducted by a USFWS-approved biologist for all construction workers, including contractors, prior to the commencement of construction activities;
- Snake exclusion fencing shall be established along the outer edge of work as far south as possible from Lower Laguna Creek;
- During construction operations, stockpiling of construction materials, portable equipment, vehicles, and supplies will be restricted to the designated construction staging areas and all operations will be confined to the minimal area necessary;
- Project-related vehicles will observe a 20-mile-per-hour speed limit within construction areas, except on existing paved roads where they will adhere to the posted speed limits;
- After completion of construction activities, the applicant will remove any temporary fill and construction debris and, wherever feasible, and restore disturbed areas to pre-project conditions. Restoration work includes such activities as re-vegetating the banks and active channels with a seed mix similar to pre-project conditions.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to giant garter snake will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to giant garter snake will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.3 Burrowing Owl

Burrowing owl is a California Species of Special Concern. Burrowing owls typically occupy open, dry, sparsely vegetated habitats including grasslands and agricultural fields. Burrow availability is a critical feature of suitable habitat. Burrowing owls utilize existing burrows excavated by other animals, typically ground squirrels (*Otospermophilus beecheyi*). In areas where burrows are scarce, they can use pipes, culverts, debris piles, and other artificial structures (Center for Biological Diversity *et al.* 2003). There are 12 documented CNDDB records for this species within five miles of the BSA (CDFW 2015b). The non-native annual grassland provides habitat for this species.

Survey Results

No burrowing owls or their sign were observed during the October and December 2015 biological surveys of the BSA. This species has the potential to breed or winter within the BSA.

Avoidance and Minimization Efforts

Project implementation could result in temporary indirect and direct impacts to burrowing owl. Temporary indirect impacts could result from the movement of equipment and workers. Direct impacts could result from destruction of occupied burrows and disturbance during construction, potentially resulting in abandonment of occupied burrows and subsequent mortality of chicks and eggs. One or more of the following measures shall be implemented to avoid or minimize potential project impacts on burrowing owl:

- A Qualified Biologist should conduct an environmental awareness training to all construction personnel. The training should include identification of special-status species, required practices before the start of construction, general measures that are being implemented to conserve the species as they relate to the project, penalties for non-compliance, and boundaries of the PIA and of the permitted disturbance zones. Supporting materials containing training information should be prepared and distributed. Upon completion of training, all construction personnel should sign a form stating that they have attended the training and understand all the measures. Proof of this instruction should be kept on file with the project proponent. The project proponent should provide the CDFW with a copy of the training materials and copies of the signed forms by project staff indicating that training has been completed within 30 days of the completion of the first training session. Copies of signed forms should be submitted monthly as additional training occurs for new employees. The crew foreman should be responsible for ensuring that construction personnel adhere to the guidelines and restrictions. If new construction personnel are added to the site, the crew foreman should ensure that the personnel receive the mandatory training before starting work.

- A Qualified Biologist should conduct a pre-construction take avoidance survey no less than 14 days prior to initiating ground disturbance using the recommended methods described in the "Detection Surveys Section" in Appendix D of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If no burrowing owls or sign of burrowing owls are detected in the vicinity of the BSA during the pre-construction survey, a letter report documenting survey methods and findings should be submitted to the City of Sacramento, the City of Elk Grove, and the CDFW, and no further avoidance or minimization measures are recommended.

- If burrowing owls are detected, no-construction buffers and timing on page 9 of the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) should be followed unless a Qualified Biologist verifies through non-invasive methods 1) that the birds have not begun egg laying and incubation, 2) that juveniles from the occupied burrows are capable of independent survival (i.e., foraging independently), or 3) that a reduced buffer is appropriate based on a site-specific evaluation. In addition, high visibility construction fencing should be established around the buffer zone, if feasible. Buffer diameters identified below and outlined in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) are as follows:

Table 3 — Distance Buffers for Burrowing Owl

Location	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting Sites	April 1-Aug 15	356 feet (200 meters)	1,640 feet (500 meters)	1,640 feet (500 meters)
Nesting Sites	Aug 16-Oct 15	356 feet (200 meters)	356 feet (200 meters)	1,640 feet (500 meters)
Nesting Sites	Oct 16-Mar 31	164 feet (50 meters)	329 feet (100 meters)	1,640 feet (500 meters)

- If the buffers specified above are infeasible, then a Qualified Biologist should conduct a site evaluation to determine whether impacts can be avoided with implementation of additional measures. If the Qualified Biologist determines that measures can be established to avoid impacts to burrowing owls, the Qualified Biologist should develop a mitigation plan through consultation with the CDFW including, but not limited to, the installation of visual screens between the nest and construction activities and/or the implementation of biological monitoring during construction activities.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to burrowing owls will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to burrowing owls will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.4 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. Valley oak, Fremont cottonwood, walnut, and large willow trees, ranging in height from 41 to 82 feet, are the most commonly used nest trees in the Central Valley (County of Sacramento 2007). Nest locations are usually in close proximity (up to a 10-mile radius) to suitable foraging habitats, which include fallow fields, all types of grasslands, irrigated pastures, alfalfa and other hay crops, and low-growing row crops (SAIC 2012). Swainson's hawks leave their breeding grounds to return to their wintering grounds in late August or early September (Bloom and De Water 1994).

The CDFW considers five or more vacant acres within ten miles of an active nest within the last five years to be significant foraging habitat for Swainson's hawk, the conversion of which to urban uses is considered a significant impact and requires mitigation, in accordance with the *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk in the Central Valley of California* (CDFG 1994; Staff Report). There are 49 documented CNDDB records for this species within five miles of the BSA (CDFW 2015b). There are 179 CNDDB occurrences within 10 miles of the BSA. The nearest CNDDB record documenting an active nest within the last five years is occurrence number 2245. Occurrence number 2245 is documented in 2011 and is approximately 4.98 miles of the BSA. The occurrence states that a female was sitting on the nest while the male was flying above and calling.

Survey Results

No Swainson's hawk were observed during the October and December 2015 biological surveys; however, the surveys were conducted outside of the breeding and foraging season. The trees within the eucalyptus grove provide suitable nesting habitat and the non-native annual grassland provides foraging habitat. Additionally, the riparian trees along Lower Laguna Creek to the north and within 0.25 miles of the PIA provide nesting habitat for Swainson's hawk.

Avoidance and Minimization Efforts

The project would remove 3.76 acres of non-native annual grassland, which provides foraging habitat for Swainson's hawk. The CDFW considers five or more vacant acres within ten miles of an active nest within the last five years to be significant foraging habitat for Swainson's hawk, the conversion of which to urban uses is considered a significant impact and requires mitigation, in accordance with the Staff Report. Although an active nest is present within 4.98 miles of the BSA, no mitigation is recommended since the project would remove less than five acres of foraging habitat.

Project implementation could result in permanent and temporary direct impacts to Swainson's hawk. Permanent direct impacts to nesting habitat could occur should any active Swainson's

hawk nests be present within the eucalyptus trees proposed for removal. Temporary direct impacts from construction associated with trail work and the educational area could disturb nesting Swainson's hawk, if they are present in the eucalyptus trees proposed for avoidance within the BSA and within the trees along the riparian corridor surrounding Lower Laguna Creek within 0.25 miles of the PIA. Nest abandonment could result in mortality of chicks or eggs. The following measures shall be implemented to avoid and minimize potential project impacts on Swainson's hawk:

- A Qualified Biologist should conduct an environmental awareness training to all construction personnel. The training for active Swainson's hawk nests should be similar to the training described for burrowing owl.

- If feasible, the eucalyptus trees anticipated for removal should be completed outside of the nesting season (September 1 through February 14). The nesting season is from February 15 through August 31.

- Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a Qualified Biologist shall conduct a minimum of two (2) protocol level pre-construction surveys during the recommended survey periods for the nesting season that coincides with the 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 surveys for nesting Swainson's hawk within 0.25 miles of the PIA where legally permitted. The Qualified Biologist will use binoculars to visually determine whether Swainson's hawk nests occur within the 0.25-mile survey area if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 miles of the BSA within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the project proponent and the CDFW within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.

- If active Swainson's hawk nests are found within 0.25 miles of construction activities, the Qualified Biologist shall contact the project proponent and the CDFW within one day following the pre-construction survey to report the findings. For the purposes of this avoidance and minimization requirement, construction activities are defined to include heavy equipment operation associated with construction (use of cranes or draglines, new rock crushing activities) or other project-related activities that could cause nest abandonment or forced fledging within 0.25 miles of a nest site between February 15 and August 31. Should an active nest be present within 0.25 miles of construction areas, then the CDFW shall be consulted to establish an appropriate noise buffer, develop take avoidance measures, determine whether high visibility construction fencing should be erected around the buffer zone, and implement a monitoring and reporting program prior to any construction activities occurring within 0.25 miles of the nest. Should the Qualified Biologist determine that the construction activities are disturbing the nest, the Qualified Biologist shall halt construction activities until the CDFW is consulted. The construction activities shall not commence until the CDFW determines that construction activities would not result in abandonment of the nest site. Should the Qualified Biologist determine that the nest has not been disturbed

during construction activities within the buffer zone, then a letter report summarizing the survey results shall be submitted to the project proponent and the CDFW within 30 days following the final monitoring event, and no further avoidance and minimization measures for nesting habitat are recommended.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to Swainson's hawk will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to Swainson's hawk will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.5 Tricolored Blackbird

Tricolored blackbird was identified as a candidate species for listing on December 10, 2015. Tricolored blackbird is a colonial species that breeds in freshwater marshes of cattail (*Typha* sp.), bulrush (*Schoenoplectiella* sp. and *Isolepis* sp.), sedge (*Carex* sp.), and non-native vegetation including Himalayan blackberry (*Rubus armeniacus*). Nests occur in large colonies of up to thousands of individuals (Nature Serve 2015). Nesting locations must be large enough to support a minimum colony of approximately fifty pairs (Zeiner *et. al.* 1990). This species forages in grasslands and agricultural fields with low-growing vegetation (Shuford 2008). There are nine CNDDB records for this species within five miles of the BSA (CDFW 2015b).

Survey Results

No tricolored blackbirds were observed during the October and December 2015 biological surveys; however, the surveys were conducted outside of the breeding and foraging season. The BSA does not provide breeding habitat for this species. The non-native annual grassland provides marginal foraging habitat for this species given the high levels of disturbance associated with multiple spot fires and routine mowing practices.

Avoidance and Minimization Efforts

Implementation of the project would have no impact on breeding habitat since none exists within the BSA. Although the project would result in the removal of 3.76 acres of non-native annual grassland, which provides marginal foraging habitat for tricolored blackbirds given the high levels of disturbance, 4.54 acres would only be temporarily impacted during construction activities and 43.33 acres of non-native habitat surrounding the PIA would be avoided. The removal of approximately 0.08 percent of marginal foraging habitat would have little to no impact on this species. Take of foraging habitat is not regulated under CESA. Implementation of the project is not expected to result in take and a 2081 permit would not be required. Therefore, no measures are recommended.

Project Impacts

The removal of approximately 0.08 percent of marginal foraging habitat would have little to no impact on this species. Therefore, no avoidance measures are recommended.

Compensatory Mitigation

No compensatory mitigation will be required since the project would not result in impacts to tricolored blackbird based on the minimal percentage of foraging habitat removed within the non-native annual grassland.

Cumulative Impacts

No cumulative impacts to tricolored blackbirds will occur as a result of the project due to the minimal percentage of foraging habitat removed within the non-native annual grassland.

4.3.6 White-Tailed Kite

White-tailed kite is listed as California Fully Protected. 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 are two CNDDB records of white-tailed kite documented within five miles of the BSA (CDFW 2015b).

Survey Results

A white-tailed kite was observed foraging within the BSA during the November 2015 biological survey. The trees within the oak woodland, eucalyptus grove, non-native annual grassland, and ornamental landscaping provide nesting habitat and the non-native annual grassland provides foraging habitat for this species.

Avoidance and Minimization Efforts

Although the project would result in the removal of 3.76 acres of non-native annual grassland, which provides marginal foraging habitat for white-tailed kite given the high levels of disturbance, 4.54 acres would only be temporarily impacted during construction activities and 43.33 acres of non-native habitat surrounding the PIA would be avoided. The removal of approximately 0.08 percent of marginal foraging habitat would have little to no impact on this species. Take of foraging habitat is not regulated under CESA. Implementation of the project is not expected to result in take and a 2081 permit would not be required. Project implementation could result in permanent and temporary direct impacts to white-tailed kite. Permanent direct impacts could occur through removal of oak trees should any active nests be present. Construction associated with trail work and the educational area could disturb nesting white-tailed kites if they are present in the oak trees within the BSA and within the trees along the riparian corridor surrounding Lower Laguna Creek within 250 feet of the PIA. Nest abandonment could result in mortality of chicks or eggs. The following measures shall be implemented to avoid and minimize potential project impacts on white-tailed kite:

- A Qualified Biologist should conduct an environmental awareness training to all construction personnel. The training for active white-tailed kite nests should be similar to the training described for burrowing owl.

- If feasible, any trees anticipated for removal should be completed outside of the nesting season (September 1 through February 14). The nesting season is from February 15 through August 31.

- A Qualified Biologist shall conduct a pre-construction nesting white-tailed kite survey within 14 days prior to commencement of construction activities and tree removal, if anticipated to commence during the nesting season (between February 15 and August 31) for planning purposes. An additional pre-construction survey should be conducted within 72 hours of commencement of ground-disturbing activities. If the pre-construction survey shows that there is no evidence of active nests, then a letter report should be submitted to the project proponent and the CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, an additional pre-construction survey is recommended.

- If any active white-tailed kite nests are identified during the pre-construction survey within the BSA, a Qualified Biologist shall establish 250-foot buffer zone around the nests. The biologist should mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. No trees anticipated for removal shall be removed until the Qualified Biologist determines that the nest is no longer occupied. If a 250-foot buffer is not feasible, then the Qualified Biologist may reduce the buffer through consultation with the CDFW and recommend additional measures including daily monitoring to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring should occur until the Qualified Biologist determines that the nest is no longer occupied. Once it has been determined that the nest is no longer active, then a letter report would be submitted to the project proponent and the CDFW for their records and no additional measures are recommended.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to white-tailed kite will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to white-tailed kite will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.7 American Badger

American badger is a California Species of Special Concern. American badgers are found in dry, open habitats including grassland and open woodland. Suitable burrowing habitat requires dry, sandy soil. Breeding occurs in summer and early fall, with young being born from March to April (Nature Serve 2015). There are no CNDDB records for this species within five miles of the BSA (CDFW 2015b).

Survey Results

No American badgers were observed during the biological surveys. The non-native annual grassland and burrows provide marginal habitat for this species given the lack of sandy soils within the BSA.

Avoidance and Minimization Efforts

Project implementation could result in permanent direct impacts to American badger. Permanent direct impacts could occur through destruction of dens should any be present within the PIA. One or more of the following measures shall be implemented to avoid and minimize potential project impacts on American badger:

- A Qualified Biologist should conduct a pre-construction survey for American badger within 14 days prior to the start of ground disturbance. If no American badgers are observed, then a letter report documenting the results of the survey should be provided to the project proponent for their records, and 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 American badgers or their dens are found, additional avoidance measures are recommended including having a Qualified Biologist conduct a pre-construction survey within 24 hours prior to commencement of construction activities, performing a Worker Awareness Training to all construction workers, and being present during grading activities for the purpose of temporarily halting construction activities until the biologist determines that the badger has left the construction footprint on its own accord.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to American badger will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to American badger will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.3.8 Migratory Birds and other Bird of Prey

All raptors, including common species not considered special-status, are protected under the California Fish and Game Code (Section 3503.5). Removal or destruction of an active raptor nest is considered a violation of the Fish and Game Code. In addition, migratory birds are protected under the MBTA of 1918 (16 U.S.C 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21).

Survey Results

No active nests were observed during the October and December 2015 biological surveys; however, the surveys were conducted outside of the breeding season. The non-native annual grassland and the trees within the oak woodland, eucalyptus grove, non-native annual grassland, and ornamental landscaping provide nesting habitat for migratory birds and raptors during the nesting season (February 15 through August 31).

Avoidance and Minimization Efforts

Project implementation could result in permanent and temporary direct impacts to migratory birds and other birds of prey. Permanent direct impacts could occur to ground-nesting birds through destruction of nests if present within the PIA. Permanent direct impacts could also occur through removal of trees should any active nests be present. Temporary direct impacts could occur during tree removal and/or vegetation clearing and grading associated with construction activities through disturbance of nesting migratory birds and other birds of prey, if they are present in the within 250 feet of the PIA. Nest abandonment could result in mortality of chicks or eggs. The following measures shall be implemented to avoid or minimize potential project impacts on nesting migratory birds and other birds of prey:

- A Qualified Biologist should conduct an environmental awareness training to all construction personnel. The training for active nests should be similar to the training described for burrowing owl.
- If feasible, any trees anticipated for removal should be completed outside of the nesting season (September 1 through February 14). The nesting season is from February 15 through August 31.
- A Qualified Biologist shall conduct a pre-construction survey for active nests within 14 days prior to commencement of construction activities and tree removal, if anticipated to commence during the nesting season (between February 15 and August 31) for planning purposes. An additional pre-construction survey should be conducted within 72 hours of commencement of ground-disturbing activities. If the pre-construction survey shows that there is no evidence of active nests, then a letter report should be submitted to the project proponent and the CDFW for their records and no additional measures are recommended. If construction does not commence within 72 hours of the pre-construction survey, or halts for more than 72 hours, an additional pre-construction survey is recommended.
- If any active nests are located within the BSA, a Qualified Biologist should establish an appropriate buffer zone around the nests. The Qualified Biologist should mark the buffer zone with construction tape or pin flags and maintain the buffer zone until the end of breeding season or until the young have successfully fledged. Buffer zones are typically 100 feet for migratory bird nests and 250 feet for raptor nests. If active nests are found onsite, a Qualified Biologist should monitor nests weekly during construction to evaluate potential nesting disturbance by construction activities. If establishing the typical buffer zone is impractical, the Qualified Biologist may reduce the buffer depending on the species and daily monitoring is recommended to ensure that the nest is not disturbed and no forced fledging occurs. Daily monitoring should occur until the Qualified Biologist determines that the nest

is no longer occupied. Once it has been determined that the nest is no longer active, then a letter report would be submitted to the project proponent and the CDFW for their records and no additional measures are recommended.

Project Impacts

By implementing one or more of the avoidance measures discussed above, no impacts to migratory birds and other birds of prey will occur as a result of the project.

Compensatory Mitigation

No compensatory mitigation will be required due to the implementation of the avoidance measures discussed above.

Cumulative Impacts

No cumulative impacts to migratory birds and other birds of prey will occur as a result of the project due to the implementation of the avoidance measures discussed above.

4.4 Invasive Plant Species

Project implementation could result in the potential spread of invasive species by the entering and exiting of construction equipment contaminated by invasive plants, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species.

4.5 Protected Trees

A total of 198 oak trees were inventoried within the BSA (Foothill Associates 2016).

Seventeen of the 198 trees occur within the City of Sacramento. Of the 17 trees, 3 are considered Heritage trees and are therefore protected, in accordance with the City of Sacramento Tree Ordinance (Ord. 2008-018 § 3; prior code § 45.04.211). None of the 3 Heritage oak trees would be impacted by the proposed project. As stated above, although the eucalyptus trees within the eucalyptus grove contain trees with DBHs that meet the City of Sacramento's Tree Ordinance to be considered a Heritage tree, they are non-native trees in poor condition due to fire scars and burned foliage associated with recent spot fires. The City of Sacramento considers Heritage trees so long as they are in good condition. Therefore, these trees are not considered protected, and no mitigation is recommended.

The remaining 181 trees occur within the City of Elk Grove. Of the 181 trees, 26 protected trees that are considered protected under the City of Elk Grove General Tree Ordinance (Ord. 6-2011 §4, eff. 3-25-2011) would be removed as a result of the project.

4.5.1 Avoidance and Minimization Efforts

The project would avoid direct impacts to the Heritage trees, which are considered protected under the City of Sacramento Tree Ordinance (Ord. 2008-018 § 3; prior code § 45.04.211). Therefore, no mitigation is recommended for the 3 Heritage oak trees. The project would result in the removal of 26 oak trees, which totals 219 inches DBH, protected by the City of Elk Grove Tree Preservation Ordinance. In addition, indirect impacts could occur to all trees remaining onsite through root compaction or structural damage due to grading activities or movement or

storage of construction equipment. One or more of the following avoidance or minimization measures shall be implemented:

- The project proponent should obtain a Tree Permit from the City of Elk Grove prior to removal of any protected trees. At minimum, the project proponent shall mitigate for the loss of the 219 inches DBH at a 1:1 ratio. The project proponent for the Tree Permit shall prepare a tree mitigation plan for review and approval by the City Arborist. Only the mitigation authorized under an approved mitigation plan shall be used. The plan shall specify where the trees will be planted and how the trees will be monitored and maintained for a minimum of five years.

- A chain link or City of Elk Grove-approved barrier should be installed one foot outside the critical root zone of the trees to be retained in order to avoid damage to the trees and their root systems. The critical root zone is defined as a circle with a radius measurement from the trunk of the tree to the tip of its longest limb plus one foot.

- Any pruning of retained trees should be supervised by a Certified Arborist and should be completed to the most current ISA standards ("Tree Pruning Guidelines") and ANSI A300 standards. Branch and limb pruning should be limited to that which has been deemed necessary in order to correct a safety hazard, structural defect, crown cleaning, or arborist recommended pruning in the tree.

- No signs, ropes, cables (other than those which may be recommended by a Certified Arborist to provide limb support) or any other item should be attached to the trees to be retained.

- No vehicles, construction equipment, mobile home/office, supplies, materials or facilities shall be driven, parked, stockpiled, or located within the dripline area of the on-site trees to be retained. No tree toxic materials shall be dumped on the project site (e.g., gasoline, herbicide, salt).

- No grading (grade cut or fills) or trenching should occur within the critical root zone of trees to be retained with the exception of encroachment areas on shown on the final plans. If it is absolutely necessary to install underground utilities within the dripline of the tree, the utility line shall be bored or drilled under the direct supervision of a Certified Arborist.

5.0 RESULTS: PERMITS AND TECHNICAL STUDIES FOR SPECIAL LAWS OR CONDITIONS

5.1 Federal Endangered Species Act Consultation Summary

The federally-listed vernal pool fairy shrimp and vernal pool tadpole shrimp have the potential to occur within the constructed vernal pools and the seasonal wetlands. The project is designed to avoid impacts to these aquatic features. Therefore, no Section 7 consultation is required.

5.2 Federal Fisheries and Essential Fish Habitat Consultation Summary

No special-status fish species, critical habitat for federally-listed fish species, or Essential Fish Habitat occur within the BSA.

5.3 California Endangered Species Act Consultation Summary

No state-listed species were observed within the BSA during the October and December 2015 biological surveys. The following state-listed species have the potential to occur within the BSA: the state threatened Swainson's hawk and the state candidate tricolored blackbird. No take of state-listed species is anticipated.

5.4 Wetlands and Other Waters Coordination Summary

A delineation was submitted to the USACOE on December 30, 2015. The results are considered preliminary until a Preliminary Jurisdictional Determination is made by the USACOE. Wetlands and other waters of the U.S. present within the BSA include constructed vernal pools and depressional seasonal wetlands. These features would be regulated by Sections 404 and 401 of the CWA. The project is designed to avoid impacts to these features. Therefore, Section 404 Authorization is not required. Should the project result in impacts to any waters of the U.S. and waters of the State, then a Section 404 permit would be required by the USACOE and a Section 401 Water Quality Certification would be required by the RWQCB prior to the issuance of a Grading Permit. Any waters of the U.S. or jurisdictional wetlands that would be lost or disturbed would need to be replaced or rehabilitated on a "no-net-loss" basis in accordance with the USACOE mitigation guidelines.

The two manmade excavated linear ditches occur within the BSA. These are not waters of the U.S. given that they are comprised of ephemeral flow that are not a relocated tributary, excavated in a tributary, or drain wetlands (33 CFR Part 328). In addition, a convex, sloped seasonal wetland was formed on the central-western portion of the BSA as a result of year-round irrigation runoff from the adjacent residences. Artificially irrigated areas that would revert to dry land should application of water to that area cease are not considered waters of the U.S. (33 CFR Part 328). If the USACOE verifies that the features are not jurisdictional, then these features may still be subject to waste discharge requirements under the Porter-Cologne Water Quality Control Act should the project result in impacts to these features. 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. For all impacts to non-federal waters, the project proponent will comply with State Water Resources Control Board Water Quality Order NO. 2004-0004-DWQ or the current applicable Water Quality Order, and will abide by all applicable filing, reporting and waste discharge requirements.

5.5 Invasive Plant Species

Several invasive plant species and noxious weeds are present within the disturbed non-native grassland and the ruderal/developed areas. Invasive plant and noxious weed species present in the BSA are identified in **Appendix D**. The following measures addressing invasive species abatement and eradication will be incorporated into the final project design and contract specifications:

- After construction, affected areas will be revegetated with plant species native to the vicinity and approved by a Caltrans Biologist. The plant mix will avoid the use of any species listed in the Cal-IPC Invasive Plant Inventory with a high or moderate rating.

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Appendix A — CDFW CNDDB List of Special-Status Species

CALIFORNIA DEPARTMENT OF
FISH and WILDLIFE **RareFind**

Query Summary:
Quad IS (Bruceville (3812134) OR Carmichael (3812153) OR Clarksburg (3812145) OR Courtland (3812135) OR Elk Grove (3812143) OR Florin (3812144) OR Galt (3812133) OR Sacramento East (3812154) OR Sacramento West (3812155))

Print Close

CNDDB 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	103	5	None	None	G5	S4	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	622	60	None	None	G2G3	S1S2	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Freshwater marsh | Marsh & swamp | Swamp | Wetland
Ambystoma californiense	California tiger salamander	Amphibians	AAAAA01180	1133	1	Threatened	Threatened	G2G3	S2S3	null	CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable	Cismontane woodland | Meadow & seep | Riparian woodland | Valley & foothill grassland | Vernal pool | Wetland
Aquila chrysaetos	golden eagle	Birds	ABNKC22010	312	1	None	None	G5	S3	null	BLM_S-Sensitive | CDF_S-Sensitive | CDFW_FP-Fully Protected | CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest | Cismontane woodland | Coastal prairie | Great Basin grassland | Great Basin scrub | Lower montane coniferous forest | Pinon & juniper woodlands | Upper montane coniferous forest | Valley & foothill grassland
Archoplites interruptus	Sacramento perch	Fish	AFCQB07010	5	1	None	None	G2G3	S1	null	AFS_TH-Threatened | CDFW_SSC-Species of Special Concern	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Ardea alba	great egret	Birds	ABNGA04040	35	4	None	None	G5	S4	null	CDF_S-Sensitive | IUCN_LC-Least Concern	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland
Ardea herodias	great blue heron	Birds	ABNGA04010	135	5	None	None	G5	S4	null	CDF_S-Sensitive | IUCN_LC-Least Concern	Brackish marsh | Estuary | Freshwater marsh | Marsh & swamp | Riparian forest | Wetland
Astragalus tener	Ferris' milk-										BLM_S-	Meadow & seep | Valley & foothill

var. ferrisiae	vetch	Dicots	PDFAB0F8R3	18	1	None	None	G2T1	S1	1B.1	Sensitive	grassland | Wetland
Athene cunicularia	burrowing owl	Birds	ABNSB10010	1875	38	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
Branchinecta lynchi	vernal pool fairy shrimp	Crustaceans	ICBRA03030	751	50	Threatened	None	G3	S3	null	IUCN_VU-Vulnerable	Valley & foothill grassland | Vernal pool | Wetland
Branchinecta mesovallensis	midvalley fairy shrimp	Crustaceans	ICBRA03150	126	19	None	None	G2	S2	null	null	Vernal pool | Wetland
Brasenia schreberi	watershield	Dicots	PDCAB01010	33	1	None	None	G5	S3	2B.3	null	Marsh & swamp | Wetland
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	103	3	None	None	G4	S3S4	null	CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Great Basin scrub | Pinon & juniper woodlands | Valley & foothill grassland
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2394	271	None	Threatened	G5	S3	null	BLM_S-Sensitive | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Great Basin grassland | Riparian forest | Riparian woodland | Valley & foothill grassland
Carex comosa	bristly sedge	Monocots	PMCYP032Y0	29	16	None	None	G5	S2	2B.1	null	Coastal prairie | Freshwater marsh | Marsh & swamp | Valley & foothill grassland | Wetland
Cicindela hirticollis abrupta	Sacramento Valley tiger beetle	Insects	IICOL02106	6	1	None	None	G5TH	SH	null	null	Sand shore
Cicuta maculata var. bolanderi	Bolander's water-hemlock	Dicots	PDAPI0M051	17	1	None	None	G5T3T4	S2	2B.1	null	Marsh & swamp | Salt marsh | Wetland
Coastal and Valley Freshwater Marsh	Coastal and Valley Freshwater Marsh	Marsh	CTT52410CA	60	1	None	None	G3	S2.1	null	null	Marsh & swamp | Wetland
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Birds	ABNRB02022	155	3	Threatened	Endangered	G5T2T3	S1	null	BLM_S-Sensitive | NABCI_RWL-Red Watch List | USFS_S-Sensitive | USFWS_BCC-Birds of Conservation Concern	Riparian forest
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Dicots	PDCUS01111	6	1	None	None	G5T4T5	SH	2B.2	null	Marsh & swamp | Wetland
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Insects	IICOL48011	271	27	Threatened	None	G3T2	S2	null	null	Riparian scrub
Downingia pusilla	dwarf downingia	Dicots	PDCAM060C0	127	4	None	None	GU	S2	2B.2	null	Valley & foothill grassland | Vernal pool | Wetland
Dumontia oregonensis	hairy water flea	Crustaceans	ICBRA23010	2	1	None	None	G1G3	S1	null	null	Vernal pool
											BLM_S-Sensitive | CDFW_FP-	Cismontane woodland | Marsh & swamp |

Elanus leucurus	white-tailed kite	Birds	ABNKC06010	158	16	None	None	G5	S3S4	null	Fully Protected | IUCN_LC-Least Concern	Riparian woodland | Valley & foothill grassland | Wetland
Elderberry Savanna	Elderberry Savanna	Riparian	CTT63440CA	4	3	None	None	G2	S2.1	null	null	Riparian scrub
Emys marmorata	western pond turtle	Reptiles	ARAAD02030	1147	10	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	5	None	None	G5	S3S4	null	CDFW_WL-Watch List | IUCN_LC-Least Concern	Estuary | Great Basin grassland | 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
Great Valley Cottonwood Riparian Forest	Great Valley Cottonwood Riparian Forest	Riparian	CTT61410CA	56	1	None	None	G2	S2.1	null	null	Riparian forest
Great Valley Mixed Riparian Forest	Great Valley Mixed Riparian Forest	Riparian	CTT61420CA	68	1	None	None	G2	S2.2	null	null	Riparian forest
Great Valley Valley Oak Riparian Forest	Great Valley Valley Oak Riparian Forest	Riparian	CTT61430CA	33	3	None	None	G1	S1.1	null	null	Riparian forest
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Dicots	PDMAL0H0R3	173	22	None	None	G5T2	S2	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Freshwater marsh | Marsh & swamp | Wetland
Hydrochara rickseckeri	Ricksecker's water scavenger beetle	Insects	IICOL5V010	13	2	None	None	G2?	S2?	null	null	Aquatic | Sacramento/San Joaquin flowing waters | Sacramento/San Joaquin standing waters
Juglans hindsii	Northern California black walnut	Dicots	PDJUG02040	5	1	None	None	G1	S1	1B.1	SB_USDA-US Dept of Agriculture	Riparian forest | Riparian woodland
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
Lasiurus cinereus	hoary bat	Mammals	AMACC05030	235	1	None	None	G5	S4	null	IUCN_LC-Least Concern | WBWG_M-Medium Priority	Broadleaved upland forest | Cismontane woodland | Lower montane coniferous forest | North coast coniferous forest
Lathyrus jepsonii var. jepsonii	Delta tule pea	Dicots	PDFAB250D2	131	7	None	None	G5T2	S2	1B.2	SB_BerrySB-Berry Seed Bank | SB_RSABG-Rancho Santa Ana Botanic Garden	Freshwater marsh | Marsh & swamp | Wetland
Legenere limosa	legenere	Dicots	PDCAM0C010	78	19	None	None	G2	S2	1B.1	BLM_S-Sensitive	Vernal pool | Wetland
Lepidium latipes	Heckard's pepper-	Dicots	PDBRA1M0K1	14	2	None	None	G4T2	S2	1B.2	null	Valley & foothill

var. heckardii	grass											grassland
Lepidurus packardi	vernal pool tadpole shrimp	Crustaceans	ICBRA10010	316	56	Endangered	None	G3	S2S3	null	IUCN_EN-Endangered	Valley & foothill grassland | Vernal pool | Wetland
Lilaeopsis masonii	Mason's lilaeopsis	Dicots	PDAPI19030	197	2	None	Rare	G2	S2	1B.1	null	Freshwater marsh | Marsh & swamp | Riparian scrub | Wetland
Limosella australis	Delta mudwort	Dicots	PDSCR10050	59	1	None	None	G4G5	S2	2B.1	null	Brackish marsh | Freshwater marsh | Marsh & swamp | Riparian scrub | Wetland
Linderiella occidentalis	California linderiella	Crustaceans	ICBRA06010	425	56	None	None	G2G3	S2S3	null	IUCN_NT-Near Threatened	Vernal pool
Melospiza melodia	song sparrow ("Modesto" population)	Birds	ABPBXA3010	92	17	None	None	G5	S3?	null	CDFW_SSC-Species of Special Concern	null
Northern Hardpan Vernal Pool	Northern Hardpan Vernal Pool	Herbaceous	CTT44110CA	126	22	None	None	G3	S3.1	null	null	Vernal pool | Wetland
Nycticorax nycticorax	black-crowned night heron	Birds	ABNGA11010	25	4	None	None	G5	S4	null	IUCN_LC-Least Concern	Marsh & swamp | Riparian forest | Riparian woodland | Wetland
Oncorhynchus mykiss irideus	steelhead - Central Valley DPS	Fish	AFCHA0209K	31	6	Threatened	None	G5T2Q	S2	null	AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters
Oncorhynchus tshawytscha	chinook salmon - Central Valley spring-run ESU	Fish	AFCHA0205A	13	1	Threatened	Threatened	G5	S1	null	AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters
Oncorhynchus tshawytscha	chinook salmon - Sacramento River winter-run ESU	Fish	AFCHA0205B	2	1	Endangered	Endangered	G5	S1	null	AFS_EN-Endangered	Aquatic | Sacramento/San Joaquin flowing waters
Orcuttia tenuis	slender Orcutt grass	Monocots	PMPOA4G050	96	2	Threatened	Endangered	G2	S2	1B.1	SB_UCBBG-UC Berkeley Botanical Garden	Vernal pool | Wetland
Orcuttia viscida	Sacramento Orcutt grass	Monocots	PMPOA4G070	12	1	Endangered	Endangered	G1	S1	1B.1	null	Vernal pool | Wetland
Phalacrocorax auritus	double-crested cormorant	Birds	ABNFD01020	37	3	None	None	G5	S4	null	CDFW_WL-Watch List | IUCN_LC-Least Concern	Riparian forest | Riparian scrub | Riparian woodland
Pogonichthys macrolepidotus	Sacramento splittail	Fish	AFCJB34020	15	1	None	None	GNR	S3	null	AFS_VU-Vulnerable | CDFW_SSC-Species of Special Concern | IUCN_EN-Endangered	Aquatic | Estuary | Freshwater marsh | Sacramento/San Joaquin flowing waters
Progne subis	purple martin	Birds	ABPAU01010	61	9	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	S2	null	BLM_S-Sensitive | IUCN_LC-Least Concern	Riparian scrub | Riparian woodland
Sagittaria sanfordii	Sanford's arrowhead	Monocots	PMALI040Q0	93	36	None	None	G3	S3	1B.2	BLM_S-Sensitive	Marsh & swamp | Wetland
Scutellaria galericulata	marsh skullcap	Dicots	PDLAM1U0J0	31	2	None	None	G5	S2	2B.2	null	Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Wetland

Scutellaria lateriflora	side-flowering skullcap	Dicots	PDLAM1U0Q0	13	5	None	None	G5	S2	2B.2	null	Marsh & swamp | Meadow & seep | Wetland
Spea hammondii	western spadefoot	Amphibians	AAABF02020	425	2	None	None	G3	S3	null	BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened	Cismontane woodland | Coastal scrub | Valley & foothill grassland | Vernal pool | Wetland
Spirinchus thaleichthys	longfin smelt	Fish	AFCHB03010	45	2	Candidate	Threatened	G5	S1	null	CDFW_SSC-Species of Special Concern	Aquatic | Estuary
Symphyotrichum lentum	Suisun Marsh aster	Dicots	PDASTE8470	173	1	None	None	G2	S2	1B.2	null	Brackish marsh | Freshwater marsh | Marsh & swamp | Wetland
Taxidea taxus	American badger	Mammals	AMAJF04010	478	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Alkali marsh | Alkali playa | Alpine | Alpine dwarf scrub | Bog & fen | Brackish marsh | Broadleaved upland forest | Chaparral | Chenopod scrub | Cismontane woodland | Closed-cone coniferous forest | Coastal bluff scrub | Coastal dunes | Coastal prairie | Coastal scrub | Desert dunes | Desert wash | Freshwater marsh | Great Basin grassland | Great Basin scrub | Interior dunes | Ione formation | Joshua tree woodland | Limestone | Lower montane coniferous forest | Marsh & swamp | Meadow & seep | Mojavean desert scrub | Montane dwarf scrub | North coast coniferous forest | Oldgrowth | Pavement plain | Redwood | Riparian forest | Riparian scrub | Riparian woodland | Salt marsh | Sonoran desert scrub | Sonoran thorn woodland | Ultramafic | Upper montane coniferous forest | Upper Sonoran scrub | Valley & foothill grassland
Thamnophis gigas	giant garter snake	Reptiles	ARADB36150	345	19	Threatened	Threatened	G2	S2	null	IUCN_VU-Vulnerable	Marsh & swamp | Riparian scrub | Wetland
Trifolium hydrophilum	saline clover	Dicots	PDFAB400R5	49	5	None	None	G2	S2	1B.2	null	Marsh & swamp | Valley & foothill grassland | Vernal pool | Wetland
Valley Oak Woodland	Valley Oak Woodland	Woodland	CTT71130CA	91	1	None	None	G3	S2.1	null	null	Cismontane woodland

Vireo bellii pusillus	least Bell's vireo	Birds	ABPBW01114	469	2	Endangered	Endangered	G5T2	S2	null	IUCN_NT-Near Threatened | NABCI_YWL-Yellow Watch List	Riparian forest | Riparian scrub | Riparian woodland
Xanthocephalus xanthocephalus	yellow-headed blackbird	Birds	ABPBXB3010	11	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Marsh & swamp | Wetland

Appendix B — CNPS List of Special-Status Species

CNPS California Native Plant Society Rare and Endangered Plant Inventory

Plant List

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

Search Criteria

Found in 9 Quads around 38121D4

Scientific Name	Common Name	Family	Lifeform	Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. ferrisiae	Ferris' milk-vetch	Fabaceae	annual herb	1B.1	S1	G2T1
Brasenia schreberi	watershield	Cabombaceae	perennial rhizomatous herb	2B.3	S3	G5
Carex comosa	bristly sedge	Cyperaceae	perennial rhizomatous herb	2B.1	S2	G5
Centromadia parryi ssp. rudis	Parry's rough tarplant	Asteraceae	annual herb	4.2	S3	G3T3
Cicuta maculata var. bolanderi	Bolander's water-hemlock	Apiaceae	perennial herb	2B.1	S2	G5T3T4
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Convolvulaceae	annual vine (parasitic)	2B.2	SH	G5T4T5
Downingia pusilla	dwarf downingia	Campanulaceae	annual herb	2B.2	S2	GU
Gratiola heterosepala	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	1B.2	S2	G2
Hesperevax caulescens	hogwallow starfish	Asteraceae	annual herb	4.2	S3	G3
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	Malvaceae	perennial rhizomatous herb	1B.2	S2	G5T2
Juglans hindsii	Northern California black walnut	Juglandaceae	perennial deciduous tree	1B.1	S1	G1
Juncus leiospermus var. ahartii	Ahart's dwarf rush	Juncaceae	annual herb	1B.2	S1	G2T1
Lasthenia ferrisiae	Ferris' goldfields	Asteraceae	annual herb	4.2	S3	G3
Lathyrus jepsonii var. jepsonii	Delta tule pea	Fabaceae	perennial herb	1B.2	S2	G5T2
Legenere limosa	legenere	Campanulaceae	annual herb	1B.1	S2	G2
Lepidium latipes var. heckardii	Heckard's pepper-grass	Brassicaceae	annual herb	1B.2	S2	G4T2
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	1B.1	S2	G2
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	2B.1	S2	G4G5
Navarretia eriocephala	hoary navarretia	Polemoniaceae	annual herb	4.3	S4	G4
Orcuttia tenuis	slender Orcutt grass	Poaceae	annual herb	1B.1	S2	G2

Orcuttia viscida	Sacramento Orcutt grass	Poaceae	annual herb	1B.1	S1	G1
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb	1B.2	S3	G3
Scutellaria galericulata	marsh skullcap	Lamiaceae	perennial rhizomatous herb	2B.2	S2	G5
Scutellaria lateriflora	side-flowering skullcap	Lamiaceae	perennial rhizomatous herb	2B.2	S2	G5
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	1B.2	S2	G2
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	1B.2	S2	G2

Suggested Citation

CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 02 December 2015].

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Advanced Search
Glossary

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About the Inventory
About the Rare Plant Program
CNPS Home Page
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The Calflora Database
The California Lichen Society

Appendix C — USFWS List of Special-Status Species

IPaC

U.S. Fish & Wildlife Service

My project Sacramento County, California

This project potentially impacts **29 resources** managed or regulated by the U.S. Fish & Wildlife Service

Endangered species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

Amphibians

California Red-legged Frog Rana draytonii

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

California Tiger Salamander Ambystoma californiense

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Crustaceans

Vernal Pool Fairy Shrimp Branchinecta lynchi

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Vernal Pool Tadpole Shrimp Lepidurus packardi

Endangered (A species in danger of extinction throughout all or a significant portion of its range)

Fishes

Delta Smelt Hypomesus transpacificus

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Steelhead Oncorhynchus (=Salmo) mykiss

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Insects

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Reptiles

Giant Garter Snake Thamnophis gigas

Threatened (A species likely to become endangered within the foreseeable future throughout all or a significant portion of its range)

Critical habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

THERE IS NO CRITICAL HABITAT WITHIN THIS PROJECT AREA

Migratory birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

Bald Eagle Haliaeetus leucocephalus

Year-round

Black Rail Laterallus jamaicensis

Season: Breeding

Burrowing Owl Athene cunicularia

Year-round

Fox Sparrow Passerella iliaca

Season: Wintering

Least Bittern Ixobrychus exilis
Season: Breeding

Lesser Yellowlegs Tringa flavipes
Season: Wintering

Lewis's Woodpecker Melanerpes lewis
Season: Wintering

Loggerhead Shrike Lanius ludovicianus
Year-round

Long-billed Curlew Numenius americanus
Season: Wintering

Marbled Godwit Limosa fedoa
Season: Wintering

Mountain Plover Charadrius montanus
Season: Wintering

Nuttall's Woodpecker Picoides nuttallii
Year-round

Oak Titmouse Baeolophus inornatus
Year-round

Peregrine Falcon Falco peregrinus
Season: Wintering

Short-eared Owl Asio flammeus

Season: Wintering

Swainson's Hawk Buteo swainsoni
Season: Breeding

Tricolored Blackbird Agelaius tricolor
Year-round

Western Grebe aechmophorus occidentalis
Year-round

Williamson's Sapsucker Sphyrapicus thyroideus
Year-round

Yellow-billed Magpie Pica nuttalli
Year-round

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

THERE ARE NO REFUGES WITHIN THIS PROJECT AREA

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

Freshwater Emergent Wetland

PEM1C	19.6 acres
PEM1A	2.19 acres
PEM1F	0.634 acre

Freshwater Pond

PUBF	0.537 acre

Riverine

R4SBC	0.502 acre

Appendix D — Plants Observed within the Biological Study Area

Family	Scientific Name	Common Name	Native or Invasive
Plants			
Apocynaceae	*Asclepias* sp.	Milkweed	--
Poaceae	*Avena fatua*	Wild oat	I
Asteraceae	*Baccharis pilularis*	Coyote Bush	N
Brassicaceae	*Brassica rapa*	Turnip, field mustard	I
Poaceae	*Bromus diandrus*	Ripgut grass	I
Poaceae	*Bromus hordeaceus*	Soft chess	I
Cyperaceae	*Carex* sp.	Sedge	--
Asteraceae	*Centaurea solstitialis*	Yellow star-thistle	I
Asteraceae	*Centromadia fitchii*	Spikeweed	N
Asteraceae	*Cichorium intybus*	Chicory	I
Convolvulaceae	*Convolvulus arvensis*	Bindweed, orchard morning-glory	I
Cyperaceae	*Eleocharis macrostachya*	Spikerush	N
Cyperaceae	*Eleocharis* sp.	Spikerush	--
Poaceae	*Elymus caput-medusae*	Medusa head	I
Onagraceae	*Epilobium ciliatum*	Willowherb	N
Geraniaceae	*Erodium botrys*	Storksbill, filaree	I
Poaceae	*Festuca perennis*	Rye grass	I
Poaceae	*Festuca pratensis*	Meadow fescue	I
Geraniaceae	*Geranium molle*	Cranesbill, geranium	I
Brassicaceae	*Hirschfeldia incana*	Perennial, shortpot, or summer mustard	I
Asteraceae	*Holocarpha virgata*	Tarweed, tarplant	N
Poaceae	*Hordeum marinum* ssp. *gussoneanum*	Mediterranean barley	I
Juncaceae	*Juncus xiphioides*	Iris-leaved rush	N
Asteraceae	*Lactuca serriola*	Prickly lettuce	I
Fabaceae	*Lotus purshianus*	Spanish clover	N
Malvaceae	*Malva parviflora*	Cheeseweed, little mallow	I
Poaceae	*Phalaris canariensis*	Canary grass	I
Poaceae	*Phleum* sp.	Timothy	--
Marsileaceae	*Pilularia americana*	Pilularia	N
Plantaginaceae	*Plantago lanceolata*	English plantain	I
Poaceae	*Polypogon monspeliensis*	Annual beard grass, rabbitfoot grass	I
Polygonaceae	*Rumex crispus*	Curly dock	I
Asteraceae	*Silybum marianum*	Milk thistle	I
Fabaceae	*Vicia villosa*	Hairy vetch, winter vetch	I
Asteraceae	*Xanthium strumarium*	Cocklebur	N
Trees/ Shrubs			
Myrtaceae	*Eucalyptus globulus*	Blue gum	--
Fagaceae	*Quercus lobata*	Valley oak, roble	N
Fagaceae	*Quercus suber*	Cork oak	--
Fagaceae	*Quercus wislizeni*	Interior live oak	N

Family	Scientific Name	Common Name	Native or Invasive
Euphorbiaceae	*Triadica sebifera*	Chinese tallow	I
Platanaceae	*Platanus x acerifolia*	London plane tree	I
Lythraceae	*Lagerstroemia indica*	Crape myrtle	--

CERTIFICATION
ELK GROVE CITY COUNCIL RESOLUTION NO. 2016-069

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) ss
CITY OF ELK GROVE)

I, Jason Lindgren, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on April 27, 2016 by the following vote:

AYES :	*COUNCILMEMBERS:*	*Davis, Ly, Detrick, Hume, Suen*
NOES:	*COUNCILMEMBERS:*	*None*
ABSTAIN :	*COUNCILMEMBERS:*	*None*
ABSENT:	*COUNCILMEMBERS:*	*None*

Jason Lindgren, City Clerk
City of Elk Grove, California