FLORIN CREEK MULTI-USE BASIN PROJECT

Initial Study with Intent to Adopt a Mitigated Negative Declaration

Prepared for
Sacramento Area Flood Control Agency

March 2014

ESA

Florin Creek Multi-Use Basin Project

Initial Study with Intent to Adopt a Mitigated Negative Declaration

Prepared for
Sacramento Area Flood Control Agency

March 2014

2600 Capitol Avenue
Suite 200
Sacramento, CA 95816
916.564.4500
www.esassoc.com

Los Angeles

Oakland

Olympia

Petaluma

Portland

San Diego

San Francisco

Seattle

Tampa

Woodland Hills

209454

TABLE OF CONTENTS

Florin Creek Multi-Use Basin Project
Initial Study with Intent to Adopt a Mitigated Negative Declaration

Page

Appendices

List of Tables

List of Figures

ENVIRONMENTAL CHECKLIST
Initial Study

1. **Project Title:** Florin Creek Multi-Use Basin Project

2. **Lead Agency Name and Address:** Sacramento Area Flood Control Agency
   1007 7th St, 7th Floor, Sacramento, CA 95814

3. **Contact Person and Phone Number:** Pete Ghelfi, Director of Engineering
   (916) 874-7606

4. **Project Location:** 7468 Persimmon Ave, Sacramento, CA 95823
   on the north bank of Florin Creek

5. **Project Sponsor's Name and Address:** Sacramento Area Flood Control Agency
   1007 7th St, 7th Floor, Sacramento, CA 95814

6. **General Plan Designation(s):** Low Density Residential (LDR)

7. **Zoning Designation(s):** Residential (RD5 & RD10) and Recreation (O)

8. **Description of Project:** See Project description.

9. **Surrounding Land Uses and Setting.** See Project description.

10. **Other public agencies whose approval is required.** See Project description.

Environmental Factors Potentially Affected

The Proposed Project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology, Soils and Seismicity
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Land Use Planning	☐ Mineral Resources	☒ Noise
☐ Population and Housing	☐ Public Services	☒ Recreation
☒ Transportation and Traffic	☒ Utilities and Service Systems	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Signature

11 MARCH 2014

Date

Richard M. Johnson

Printed Name

SAFCA

For

CHAPTER 1
Project Description

1.1 Introduction

The Sacramento Area Flood Control Agency (SAFCA) is proposing to construct a multi-use basin to provide flood control for areas within the 100-year flood plain of Florin Creek and recreational benefits for the community. The Florin Creek Multi-Use Basin (Project or Proposed Project) would store up to 35 acre-feet of Florin Creek flows and would provide at least 100-year flood protection to structures within the City and County of Sacramento in the vicinity and downstream of the Project site by reducing flood risk and by facilitating the completion of the South Sacramento Streams Group (SSSG) project (Federal Project) being undertaken by the US Army Corps of Engineers (USACE) in conjunction with the Central Valley Flood Protection Board (CVFPB) and the SAFCA. SAFCA is leading the effort to construct the Proposed Project that would be jointly funded by DWR (in the form of a Stormwater Management Grant of State bond funds), SAFCA, Sacramento County, and the City of Sacramento. In addition, the Project would be a part of and consistent with the American River Basin (ARB) Integrated Regional Water Management Plan (IRWMP) 2013 Update.

1.1.1 CEQA Requirements

This document has been prepared to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before they approve or implement those projects. This Initial Study(IS) and Environmental Checklist has been prepared to identify and assess the anticipated environmental effects of the Proposed Project. SAFCA, as the CEQA lead agency, has determined that a Mitigated Negative Declaration (MND) is the appropriate environmental document for the Project and has sole responsibility for approval or denial of the Project.

1.1.2 Responsible Agencies, Permits, and Approvals

Detailed below, **Table 1-1** summarizes the potential permits and/or approvals that may be required prior to construction of the Project. Additional local approvals and permits may also be required.

TABLE 1-1
REGULATORY REQUIREMENTS, PERMITS, AND AUTHORIZATIONS FOR PROJECT FACILITIES

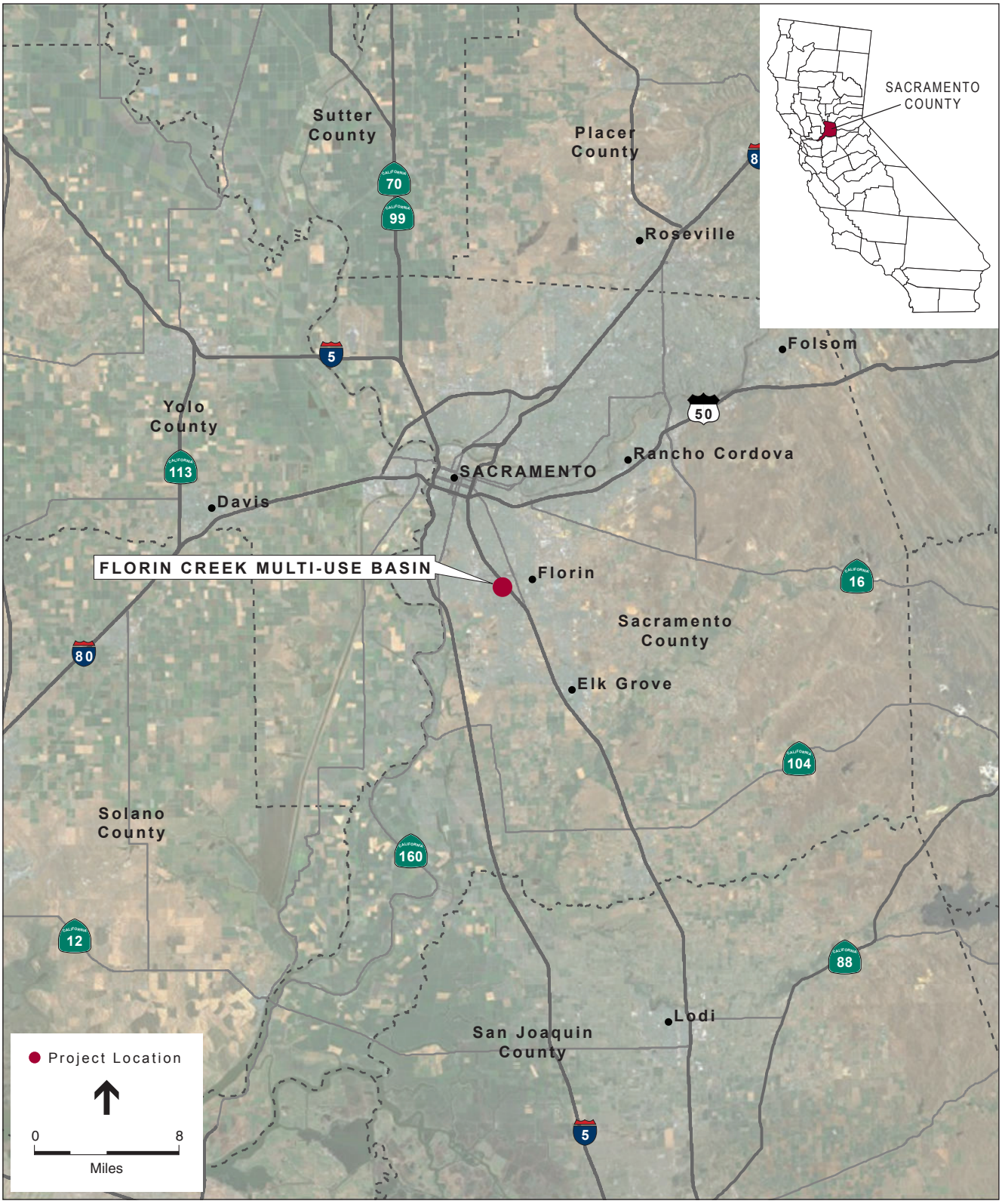
Agency	Type of Approval
Federal Agencies	
USACE	404 Clean Water Act Permit
State Agencies	
CVRWQCB	401 Clean Water Act Water Quality Certification
CVRWQCB	NPDES General Permit for Stormwater Discharge Associated with Construction
CVFPB	Encroachment Permit
State Historic Preservation Office	National Historic Preservation Act Section 106
California Department of Fish and Wildlife	Streambed Alteration Agreement
California Department of Water Resources	Funding (Stormwater Flood Management Grant)
Local Agencies	
Sacramento County	Construction Permit

1.2 Project Location

The Project is proposed to be located in an unincorporated portion of Sacramento County west of State Route (SR) 99 (see **Figure 1-1**) in and adjacent to Florin Creek Park, which is, in general bordered by Orange Avenue to the north, Persimmon Avenue to the east, and Circle Parkway to the west and Florin Creek to the south (see **Figure 1-2**). The Project would be constructed on land that is currently part of the Southgate Recreation and Park District (Park District), private undeveloped land, and public easements owned by Sacramento County. The Proposed Project also includes the use of six privately owned parcels southeast of the park for the purpose of disposal of soil excavated for the proposed basin.

1.3 Project Background

Florin Creek is a tributary to Morrison Creek that traverses the City of Sacramento and unincorporated Sacramento County. It floods out of bank in moderate floods (more frequent than the 100-year event), placing people and property at risk and requiring the owners of 450 structures to carry flood insurance. Congress authorized the USACE, in partnership with the State and SAFCA, to complete the Federal Project to provide flood risk reduction for the entire SSSG area, including Florin Creek. The Sacramento District of the USACE began constructing the Federal Project in the early 2000s. Improvements have been completed at Florin Creek and Elder Creek downstream of Franklin Boulevard, and along both banks of Morrison Creek between Beach Lake and Franklin Boulevard. SAFCA has completed additional projects at Beach Lake, Unionhouse Creek, and the Sacramento Regional County Sanitation District's Wastewater Treatment plant perimeter levee. At this time, only improvements to Florin Creek between Franklin Boulevard and SR 99 remain to be completed by the USACE to complete the Federal Project.



SOURCE: i-cubed, 1999; ESRI, 2012; ESA, 2014

Florin Creek Multi-Use Basin . 209454

Figure 1-1
Regional Location

Florin Creek Multi-Use Basin . 209454

SOURCE: Microsoft, 2012; Sacramento County, 2013; ESA, 2014

Figure 1-2
Project Site

The USACE is currently designing the Federal Project to improve the flow capacity of Florin Creek upstream of Franklin Boulevard, for which SAFCA is a partner. Due to existing infrastructure located within and adjacent to the creek corridor (homes near both the left and right banks and bridges crossing over the creek), it is economically infeasible for the USACE to construct a project which fully contains the 100-year design flow. Therefore, in order to maximize the available real estate along both sides of the creek, and to fully attenuate the 100-year event, the proposed Florin Creek Multi-Use Basin would be constructed by SAFCA.

1.3.1 Relationship to American River Basin IRWMP

The ARB IRWMP was adopted in 2006 and was updated in 2013. The IRWMP identifies regional priorities that include groundwater management, water quality protection, ecosystem restoration, environmental and habitat protection and improvement, stormwater management, flood management, recreation and public access, and nonpoint source pollution control. Water management activities that accomplish multiple priorities are favored by the IRWMP. The project would directly address flood management by detaining peak flows on Florin Creek and reducing the frequency and severity of downstream flooding and was reviewed and accepted by the IRWMP stakeholders and incorporated in the IRWMP.

1.4 Project Objectives

The overall objective of the Proposed Project is to provide up to 100-year flood protection to structures within the City of Sacramento and County of Sacramento adjacent to and downstream of the project site by reducing flood risk and by facilitating the completion of the Federal Project being undertaken by the USACE in conjunction with the SAFCA. Specific Project objectives include:

1. Reduce flood risk affecting structures in the Florin Creek floodplain downstream of SR 99.
2. In conjunction with the Federal Project, provide 100-year flood protection to structures downstream of Florin Creek Park and within the SSSG floodplain to eliminate the affected property owners' obligation to purchase flood insurance.
3. Enhance recreational opportunities and environmental values at Florin Creek Park.

1.5 Project Description

1.5.1 Project Elements

The Proposed Project includes construction and operation of two detention basins with a maximum depth of about eight feet below current ground elevation with a total flood storage volume of approximately 32.5 acre-feet. The detention basins would also provide an opportunity for stormwater management and non-point source control. Because the Park District will work with SAFCA as a project partner, the project would improve recreation and public access. Project features will include a habitat area planted with native plants to provide ecosystem restoration.

The Project site would encompass approximately 16 acres for the multi-use basin portion and approximately 4 acres of construction staging and soil disposal areas.

SAFCA may acquire the two privately-owned parcels on the north side of Florin Creek Park on behalf of the Project partner; the Park District. A flood easement would be created over these parcels and portions of the two existing Park District parcels that would allow the construction and operation of the Project. The Project would not disturb the existing Community Center at the northeastern corner of the existing park site and would avoid major infrastructure.

1.5.2 Detention Basins

The Proposed configuration and design of the detention basins and associated infrastructure are shown on **Figure 1-3**. The two detention basins would be constructed to have a total storage capacity of approximately 32.5 acre-feet and designed to detain peak flows from approximately a 25-year storm event up to a 100-year storm event. The basins would be up to eight feet deep and would be constructed with typical side slopes of five feet horizontal to one foot vertical (5:1). Working in conjunction with the USACE Florin Creek channel improvements, a weir would be constructed on the right bank (looking downstream; the north bank) of Florin Creek at Florin Creek Park to allow floodwaters to spill into the park at storm events exceeding about the 25-year event. During these flood events storm water would spill first into the ponds and southern basin. As flood events increase water surface elevations within the Florin Creek channel, more flood water would flow over the weir into the southern basin, then incrementally flow through the interconnecting 48-in (approximate) culvert to the second basin to the north until the capacity of both is reached in the 100-year flood event. Events with higher flows would overflow the basins into adjacent areas. As high flood flows in Florin Creek subside, detained water would flow back into Florin Creek either over the weir or through a 36-in (approximate) culvert located on the southwestern end of the park site. Once the basin and creek levels drop below the weir level, all flow out of the basin would be through the culvert. Water levels in the basins during this period would be similar to those in the creek. A flap gate on the creek end of the culvert would prevent water in the creek from entering the basin through the discharge culvert.

The park would be graded to convey Project site drainage into the basins and then southward toward Florin Creek following storm events. The drainage would be accepted by the inlet structure on the upstream end of the buried 36-in (approximate) culvert and conveyed to the creek channel when the water surface elevation in the creek is lower than the inlet. The Project would grade the detention basins and fields to collect water from within the park boundaries and drain the excess towards the southwestern area of the park where stormwater would collect under minor storm events and eventually discharge through the culvert to the creek, or percolate into the groundwater. Under certain conditions during minor storm events, some stormwater could accumulate in the lower basin near the culvert. The Project may install a sump pump located in the southwest corner of the lower detention basin to drain stormwater during times when creek flows are too high to allow gravity drainage of the basin through the discharge culvert. If installed, the sump pump would be enclosed and shielded to prevent tampering and shield noise when it would be operating.

1.5.3 Environmental Enhancement Features

An existing 6,400 square foot landscaped area would be replaced with an approximately 18,800 square foot pond and wetland feature with perimeter plantings of about 2,700 square feet of wetland plants on the edges of the pond and about 4,200 square feet of oak savanna representing riparian floodplain west and north of the pond. Educational opportunities for the general public and local elementary schools would be enhanced by providing interpretive panels addressing the role of wetlands, oaks, and floodplains in the Central Valley. The panels will encourage park visitors to consider the relationship of healthy wetlands to watershed and wildlife health.

1.5.4 Recreational Improvements

The Project would add 2.84 acres to Florin Creek Park and would develop existing undeveloped park land. The total increase in developed park acreage would be approximately 4.7 acres. The Project would also construct new sidewalks along a portion of Persimmon Avenue south of the Park building and would construct sidewalks and street frontage improvements along a portion of Orange Avenue adjacent to the Project site that would result in better access than currently exists. Further, the Project would redesign and reconstruct the permanent pond that is used for the California Department of Fish and Wildlife's (CDFW's) Fishing in the City Program. The pond would be approximately six to eight feet deep and provide grouted cobbled banks along a portion of the pond that could be used for the annual Fishing in the City event. The Project would also reconstruct sidewalks within the park and over the permanent fish pond to meet Americans With Disabilities Act standards and to provide access for the Fishing in The City event. Replacement lights along all interior park paths would be installed to replace existing lights removed during construction and new lights would be added along new walkways.

In addition, the Project would double the number of soccer fields. The park now has one large field that can be used for two fields for younger players, and with the project it will have one large and one medium field that together can serve as a total of four fields for young players, allowing families to visit the park while their children play simultaneous games, or two fields for children and one field for adult players. See **Figure 1-3** for details on the location of Project proposed park features and dimensions mentioned above.

1.6 Construction Process and Schedule

Project construction would entail grubbing the site, removing an existing small constructed pond, picnic tables, turf, landscaping (including some trees), and miscellaneous site hardware. Approximately 49,700 cy of soil would be excavated to construct the detention basins. Approximately 32,700 cy would be hauled off-site by contractors to a local landfill or other use within 20 miles from the Project site as stipulated in the SAFCA contract with the contractor(s), and 11,300 cy would be hauled approximately 900 feet southeast to the private parcels indicated on **Figure 1-2**. The soil for raising the parcels above the 100-year flood elevation would be spread, compacted, and stabilized with hydroseeding. The remaining 5,700 cy would be reused on the Project site. Following excavation the area would be re-landscaped, including planting of

fields and installation of irrigation systems and site hardware to replace those removed. In the portions of the basin on previously undeveloped parcels, new landscaping and irrigation systems would be installed.

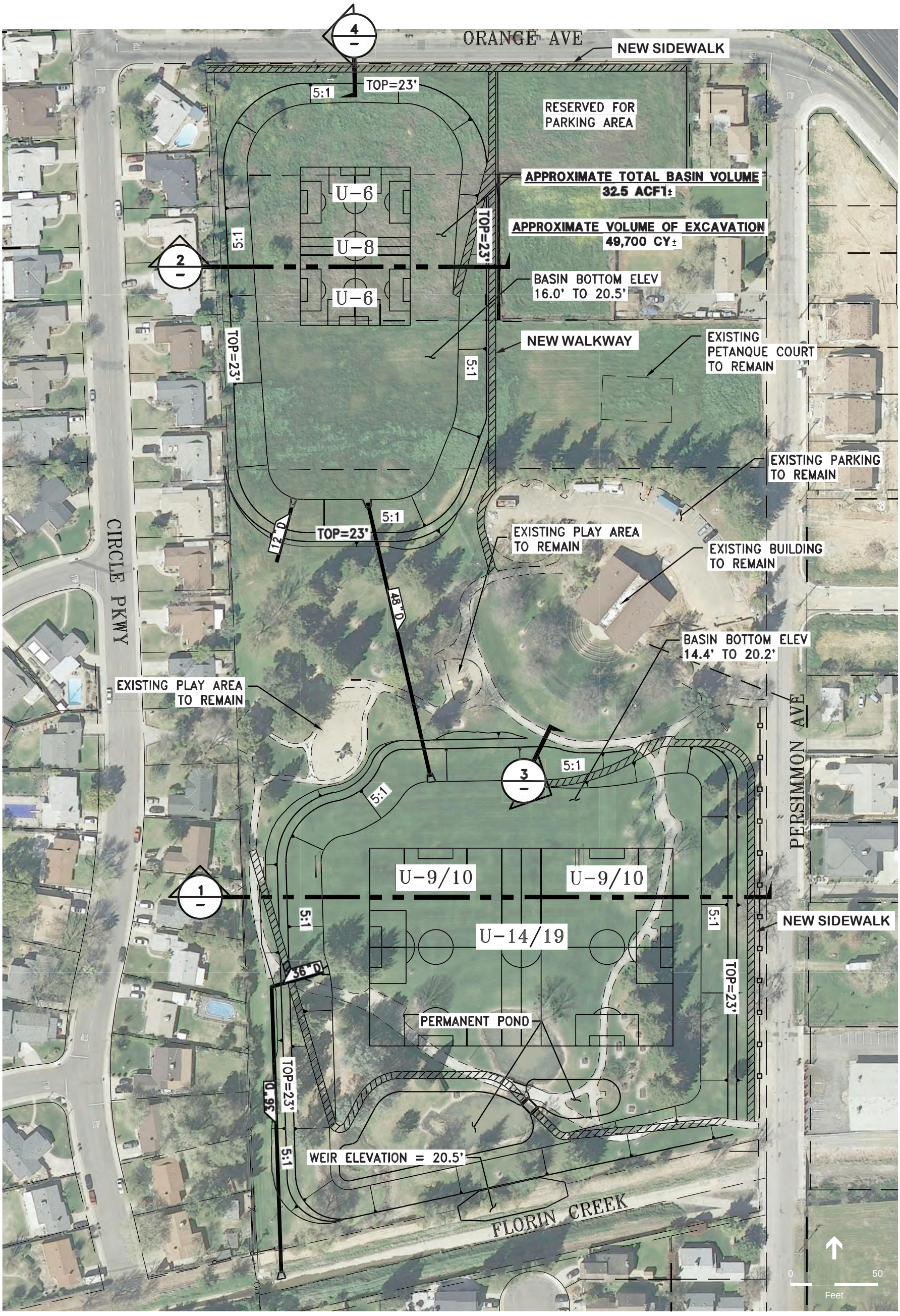
All contractor activities would be covered by a National Pollution Discharge Elimination System (NPDES) permit for construction activities by the Central Valley Regional Water Quality Control Board (CVRWQCB), as mandated in the contract between SAFCA and the contractor(s). As such, exposed soil on the Project site and on the private parcels would be equipped with Best Management Practices (BMPs) (e.g., hay bales or straw wattles, etc.) to prevent silt from entering stormwater runoff. In addition, implementation of BMPs would be required during construction and post-construction for the Project until landscaping provides enough stability and coverage to prevent degradation of stormwater runoff.

1.6.1 Construction Staging and Equipment

At various locations within the construction zones, staging areas would be required to store construction equipment, and other construction related items. Staging areas would be located in previously disturbed or non-vegetated areas in either of the basin footprints, and would not be located within identified sensitive areas such as at wetlands or near Florin Creek. Additional staging areas would be located within the privately owned parcels to the southeast. All construction activities and storage of materials would be done in conformance with the CVRWQCB General Construction NPDES Permit conditions. Further, to increase worker safety in and around the construction areas and equipment, the Project would require the preparation and implementation of a health and safety plan.

Specific equipment to be used in support of construction of the Project would be based on the requirements of the construction contractor who would complete Project construction. However, SAFCA anticipates that the following or similar types of equipment would be used on site:

- Scrapers,
- Water Trucks,
- Front-End Loaders,
- Haul Trucks,
- Backhoes,
- Excavators,
- Pickup Trucks,
- Vibratory Rollers,
- Motor Graders, and
- Cement Mixing Trucks.



SOURCE: Wood Rodgers, 2014; ESA, 2014

Figure 1-3
Proposed Project Design

This page intentionally left blank

1.6.2 Construction Traffic Management

The Proposed Project would include the preparation of a Traffic Control Plan (TCP) in advance of any construction mobilization or activity that would include such measures as coordination with CalTrans, the City of Sacramento, the County of Sacramento, and Sacramento RT on routing haul trucks and other construction traffic to and from the Project site to reduce potential delays along roadways.. The TCP would include the following:

- Construction vehicles would not be permitted to block any roadways or driveways;
- Unobstructed access will be provided for emergency vehicles at all times;
- Signs and flagmen would be used, as needed, to alert motorists, bicyclists, and pedestrians to the presence of haul trucks and construction vehicles at all access points, especially during school commute periods;
- Vehicles would be required to obey all speed limits, traffic laws, and transportation regulations;
- Parking of construction worker vehicles would be located within designated staging or parking areas within the park. On-street parking would be prohibited;
- Staging areas and construction sites would be clearly fenced and delineated with appropriate closure signage; and,
- The contractor would be required by contract to repair any roads damaged by construction, which would be inspected by the City of Sacramento and County of Sacramento.

In addition, if there are trucks or equipment which would need time to maneuver into or out of construction sites and could affect traffic, flag holders would be stationed to slow or stop approaching vehicles to avoid conflicts with construction vehicles or equipment.

1.6.3 Anticipated Construction Schedule

Project construction activities would require a total of approximately three months during the Summer/early-Fall low-flow conditions. The sequential major construction activities associated with the construction of the Project are as follows:

- Mobilize construction equipment and materials
- Clear and grub site
- Excavate basins and pond areas, including culvert pipes
- Level and compact basins and contour side slopes
- Construct weir
- Install irrigation systems
- Construct walkways and sidewalks, and install fencing, signs, and lighting
- Landscape and sod plantings

Sod maturity could take between one and two months before use for recreation activities. Project construction activities would start mid- to late-summer of 2014 or 2015 and be completed before winter 2014 or 2015.

CHAPTER 2
Environmental Checklist

2.1 Aesthetics

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
1.	**AESTHETICS — 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 which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Environmental Setting

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, visual or aesthetic impacts may occur.

The Project would involve modifications to the existing Florin Creek Park and vacant parcels adjacent and to the north of the park. The Project site is located in a residential neighborhood and is bordered by Florin Creek to the south. The park has existing landscaping as well as structures such as the existing pond, sidewalks, and sidewalk lighting throughout the park.

Discussion

a) **No Impact.** The Proposed Project is not located in or near a designated scenic vista; therefore, construction of the flood detention basin and other park improvements would not have an adverse effect on a scenic vista.

b) **No Impact.** Florin Creek Park is located approximately 700 feet west of SR 99, which is not designated as a scenic highway on the current Caltrans Map of Designated State Scenic Highways (Caltrans, 2014). The park and the surrounding area is not designated

as a scenic resource. Therefore, construction and operation of the proposed detention basin and recreation facilities would not result in damage to a scenic resource.

c) **Less-than-Significant.** Construction of the Proposed Project would result in short-term changes in the existing visual character and quality of the Project area. Construction activities would include grading and removal of existing vegetation to form the detention basins, infrastructure and associated recreational improvements. Excavated soil would be stockpiled on adjacent parcels and construction equipment and materials would be temporarily stored on-site and on adjacent staging areas. Following construction, landscaping would be installed throughout the park both to replace what was removed and to expand the park use and habitat features. Because park uses would be expanded and landscaping would be replaced, Proposed Project uses would be consistent with the existing visual character and would not result in a long-term adverse change in the visual character of the area.

d) **Less-than-Significant.** Florin Creek Park includes existing walkways with low-level and shielded lights along the walkways for safety. The Proposed Project would include replacement lights for those that are removed along all interior park paths and new lighting along all new walkways. Lighting associated with the Project would be required to be consistent with County General Plan and zoning policies and regulations related to light and glare, which would require minimization or shielding of nighttime lighting, restrictions on the use of reflective surfaces, and other measures that would minimize impacts associated with light and glare. Therefore, the proposed Project would not result in new sources of substantial light or glare which would adversely affect daytime or nighttime views.

References

California Department of Transportation (Caltrans), 2014. California Scenic Highway Program, available at: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm; accessed February 6, 2014.

Sacramento County, 2011. General Plan of 2005-2030. November, 2011.

2.2 Agricultural and Forest Resources

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

Environmental Setting

The proposed Project is located in an urban area of Sacramento County that that is designated as Low Density Residential and does not contain any agricultural lands, including prime farmland or lands under a Williamson Act Contract. The County's designation does not allow for agricultural uses.

Discussion

a-e) **No Impact.** The proposed Project is not located in an area with Prime or Unique Farmland or Farmland of Statewide Importance; nor is it located in an area zoned as forest, timberland or used for timber production. Therefore, the Project would not convert agricultural or forest lands to other uses, nor would it conflict with existing agricultural and timberland zoning or a Williamson Act Contract.

References

California Department of Conservation, 2010. Sacramento County Important Farmland 2010. Available at: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/sac10.pdf. Accessed on February 7, 2014.

Sacramento County, 2011. General Plan of 2005-2030. November, 2011.

2.3 Air Quality

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

Environmental Setting

The Project is in Sacramento County, in the Sacramento Valley Air Basin (SVAB). Sacramento County is currently designated as a nonattainment area for federal and state standards for ozone and PM2.5, as well as the state PM10 standard. PM10 and PM2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively (a micron is one-millionth of a meter). PM10 and PM2.5 standards are established to protect human health and refer to air pollutants that consist of particles ten microns and two and a half microns or less in diameter, respectively. PM10 standards are also designed to protect visibility and prevent vegetation damage. The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the regional agency responsible for air quality regulation within the SVAB. The SMAQMD regulates air quality through its planning and review activities and has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, and can impose emission limits, set fuel or material specifications, or establish operational limits to reduce air emissions. The SMAQMD regulates new or expanding stationary sources of toxic air contaminants (TACs).

For state air quality planning purposes, Sacramento County is classified as a severe non-attainment area for ozone. The "severe" classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the SMAQMD update the Clean Air Plan every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The SMAQMD's record of progress in implementing previous measures must also be reviewed. The *Sacramento Regional 8-Hour Ozone Attainment and*

Reasonable Further Progress Plan (2013 SIP Revisions) (SMAQMD, 2013), which addresses attainment of the federal 8-hour ozone standard, as well as the *2009 Triennial Report and Plan Revision* (SMAQMD, 2009a), which addresses attainment of the state ozone standard, are the latest plans issued by the SMAQMD. These attainment plans depend heavily on the SMAQMD's permit authority, which is exercised through the SMAQMD's *Rules and Regulations.*

Discussion

a) **Less-than-Significant.** The Project would comply with Air District regulations and is part of a larger flood control project within an urbanized area of Sacramento County and would not facilitate growth. Expansion of the existing park would result in slightly increased visitation and maintenance, though these sources would result in a negligible increase in air pollutant emissions. Therefore, the proposed project would not conflict with or obstruct implementation of the SMAQMD air quality plans. The impact would be less than significant, and no mitigation would be required.

b) **Less-than-Significant with Mitigation.** Project construction emissions would be short-term or temporary in duration. Project construction activities would generate fugitive dust, including PM10 and PM2.5. Fugitive dust emissions are primarily associated with site preparation and vary as a function of parameters such as soil silt content, soil moisture, wind speed, acreage of disturbed area, and miles traveled by construction vehicles on- and off-site.

Proposed Project construction activities are anticipated to be completed within approximately two months. Construction emissions were estimated for the Project using the methods contained in SMAQMD's *Guide to Air Quality Assessment in Sacramento County* (SMAQMD, 2009b). The CalEEMod model was used to quantify construction nitrogen oxide (NOx) emissions from off-road equipment, haul trucks associated with soils export and material delivery, and on-road worker vehicle emissions. The estimated maximum unmitigated emissions of NOx during Project construction would be 276 pounds per day. The SMAQMD NOx threshold for construction emissions is 85 pounds per day. Additional information, including CalEEMod outputs, are provided in Appendix A.

SMAQMD has also established significance thresholds for PM10 that are based on the proposed project's contribution to ambient PM10 concentrations. Projects that implement SMAQMD's Basic Construction Emission Control Practices and that cover less than 15 acres are considered by the SMAQMD to not have the potential to exceed or contribute to the District's concentration-based threshold of significance for PM10 at an off-site location (SMAQMD, 2009b). Since the total disturbed area of the project site would be 13.2 acres and off-site spoil areas would be 6.6 acres, the disturbed daily acreage on each site would be less than 15 acres.

The existing Florin Creek Park is moderately used by families and small groups during weekdays and visitation slightly increases during the weekends. The park is currently the home field of the Parkway Soccer Club. Project operations would include a minimal

increase in emissions from minor maintenance activities and on-road vehicles from visitors. These emissions sources are already associated with the existing park and would not be substantially increased by the Project. Consequently, the Proposed Project's increase in operational emissions would be negligible.

Implementation of the following mitigation measures and NOx off-site mitigation fees would ensure that the Project construction emissions of NOx would be reduced to less than significant, ensuring that construction of the Proposed Project would not violate any air quality standards or contribute substantially to an existing or projected air quality violation. In addition, implementation of Mitigation Measure AIR-1 described below would ensure that fugitive dust emissions associated with Project construction would be less than significant.

Mitigation Measure AIR-1: The applicant shall require the construction contractor to include the following SMAQMD Basic Construction Emission Control Practices in all grading or improvement plans:

- All exposed surfaces shall be watered 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 shall 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.
- All roadways, driveways, sidewalks, parking lots shall be paved as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment shall be checked by a certified mechanic and determine to be running in proper condition before it is operated.

Mitigation Measure AIR-2: The applicant shall require the construction contractor to include the following SMAQMD Enhanced Exhaust Control Practices in all grading or improvement plans:

- Provide 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 Proposed Project to the

SMAQMD. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The construction contractor 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 inventory shall be updated and submitted monthly throughout the duration of the Proposed Project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

- Provide a plan in conjunction with the equipment inventory, approved by the SMAQMD, demonstrating that the heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOx reduction and 45% particulate reduction compared to the most recent CARB fleet average. 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.
- Emissions from all off-road diesel powered equipment used on the project site shall 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, and the SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and 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. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this measure shall supercede other SMAQMD or state rules or regulations.
- If at the time of granting of each building permit, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the SMAQMD prior to construction will be necessary to make this determination.

Mitigation Measure AIR-3: The applicant shall coordinate with SMAQMD to determine and ensure payment of off-site mitigation fees to offset the significant NOx emissions associated with the Proposed Project.

c) **Less-than-Significant with Mitigation.** In regards to operations, the Proposed Project would generate a negligible increase in operational emissions. In regards to construction, since NOx is an ozone precursor and as such is primarily of regional concern, all other concurrent construction activities in the SVAB would contribute to cumulative construction-related NOx emissions. The Proposed Project would result in substantial emissions of NOx, which would combine with emissions generated by other existing and future development within the SVAB to contribute to an air quality violation in the region. Also, the Proposed Project's exceedance of the thresholds by itself indicates that

its contribution to such a violation would be considerable when compared to other projects in the region. Consequently, without mitigation, the Proposed Project's contribution to NOx emissions would be cumulatively considerable, resulting in a significant cumulative impact. However, with implementation of the Mitigation Measures AIR-1 through AIR-3 (as described in Checklist Item 3b above), exhaust emissions would be reduced on-site and mitigation fees would be provided to SMAQMD for project NOx emissions that exceed the SMAQMD significance threshold. SMAQMD uses the fees to fund off-site projects that would offset the project's NOx emissions. Although cumulative NOx emissions in the SVAB would be significant due to existing violations in the region, with implementation of Mitigation Measures AIR-1 through AIR-3, the Proposed Project would result in a less than considerable contribution to the significant cumulative impact. Thus, temporary construction emissions would be mitigated to a less than significant level.

Mitigation Measure: Implement Mitigation Measures AIR-1 through AIR-3.

d) **Less-than-Significant.** Air pollutant sensitive receptors include children, adults, and seniors occupying or residing in residential dwellings, schools, colleges and universities, daycares, hospitals, and senior-care facilities. Sensitive receptor land uses in the proposed Project vicinity include residences, with the nearest (along Circle Parkway) approximately 25 feet from potential construction. Construction of the project would result in short-term diesel exhaust emissions (DPM), which are TACs, from on-site heavy-duty equipment. Project construction would generate DPM emissions from the use of off-road diesel equipment required for construction activities. Exposure of sensitive receptors—such as the adjacent residences—is the primary factor used to determine health risk. Exposure is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. A longer exposure period would result in a higher exposure level. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of the proposed construction activities (two months) would only constitute a small percentage of the total 70-year exposure period. OEHHA recommends that a minimum exposure duration of two years be assumed for health risk assessment of short-term projects, such as construction. However, in this case, with a maximum of two months of construction, the assumption of a two-year exposure would overstate potential health risks. DPM from construction activities is not anticipated to result in the exposure of sensitive receptors to levels that exceed applicable standards. Implementation of Mitigation Measures AIR-1 and AIR-2 described above would reduce diesel exhaust during construction and reduce potential DPM emissions.

The long-term operation of the Project would not result in any sources of TACs. The Project expands the existing park and would not expose visitors to increased TACs from any nearby sources. This impact would be less than significant.

e) **Less-than-Significant.** The closest sensitive receptors are homes adjacent to the Florin Creek Park. The Proposed Project would not generate long-term objectionable odors. During construction, odors associated with the intermittent operation of diesel-powered equipment may be detected at nearby residences. However, this effect would be of short duration.

References

Sacramento Metropolitan Air Quality Management District, 2013. *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2013 SIP Revisions). September 26, 2013.

Sacramento Metropolitan Air Quality Management District, 2009a. *2009 Triennial Report and Plan Revision*. December 2009.

Sacramento Metropolitan Air Quality Management District, 2009b. *Guide to Air Quality Assessment*. Adopted December 2009 and last updated October 2013.

2.4 Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
4.	**BIOLOGICAL RESOURCES— 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, regulations or by the California Department of Fish and Wildlife 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, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The Project site is located in the central portion of the southern Sacramento Valley. Historically, this region supported extensive marshes, riparian woodlands intermixed with oak woodlands, vernal pools, and grasslands. Intensive agricultural and urban development has resulted in substantial changes and conversions of these habitats. The Project site supports several habitat types, including annual grassland, freshwater emergent wetland, riverine, lacustrine, and barren (gravel and paved access roads), along with urban/developed, and ruderal areas (**Figure 2-1**).

Study Methods and Data Sources

Biological resources within the Project site were identified by ESA biologists through field reconnaissance, a review of pertinent literature, and database queries. The primary sources of data referenced for this report included the following:

- Federal Endangered and Threatened Species that may be Affected by Projects in the Florin, California 7.5-Minute Topographic Quadrangles (U.S. Fish and Wildlife Service [USFWS], 2014);

SOURCE: Microsoft, 2012; Sacramento County, 2013; ESA, 2014

Florin Creek Multi-Use Basin . 209454

Figure 2-1
Habitats within the Project Site

- California Natural Diversity Database (CNDDB), Rarefind 5 computer program (California Department of Fish and Wildlife [CDFW], 2014);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2014)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2013);
- Special Animals List (CDFW, 2011); and
- Ecological Subregions of California (Miles and Goudey, 1997).

ESA biologists Joshua Boldt and Lindsay Tisch conducted a biological survey of the Project site on January 29, 2014. The survey was conducted by walking within the Project site, including Florin Creek and the privately owned parcels. The survey recorded habitat types, plants and wildlife species within and adjacent to the Project site. The field surveys focused on identifying and delineating habitat for special-status plant and wildlife species, although general habitat conditions were noted and incidental species observations were recorded. A formal wetland delineation was also conducted at this time for the Proposed Project.

Plant Communities and Wildlife Habitats

Wildlife habitats are generally described in terms of dominant plant species and plant communities along with landform, disturbance regime, and other unique environmental characteristics. The wildlife habitat descriptions and nomenclature used in this section generally follows the classification system of A Guide to Wildlife Habitats of California or CWHR (CDFG, 1988). The CWHR habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly occurring birds, mammals, reptiles and amphibians.

Wildlife habitats generally correspond to plant communities. Plant communities are assemblages of plant species that occur together in the same area and are repeated across landscapes. They are defined by species composition and relative abundance. Plant communities within the Project site were identified using field reconnaissance and aerial photography. Within CDFW's current vegetation classification system, vegetation alliances are the scientifically derived hierarchical class that corresponds best with plant communities and are designed to be the unit for conservation of rare or threatened plant communities (Sawyer et al., 2009). Vegetation alliances typically represent a much finer scale of vegetation description than wildlife habitats but correspond appropriately with one or several wildlife habitat types. CDFW provides crosswalks to help correlate vegetation alliances with wildlife habitats and the descriptions below make use of the crosswalk. A description of each habitat type is presented below. Related vegetation alliances are listed following the wildlife habitat description and are based on the alliance descriptions presented by Sawyer et al. (2009). **Table 2-1** lists the acreage of each habitat type found within the Project site.

TABLE 2-1
HABITAT TYPES WITHIN THE PROJECT SITE

Habitat Type	Approximate Area (acres)
Annual Grassland	5.35
Ruderal	6.13
Barren	0.08
Urban/Developed	9.29
Freshwater Emergent Wetland	0.12
Riverine	0.12
Lacustrine	0.31
Total for the Project site	**21.4**

SOURCE: ESA, 2014

Annual Grassland

Annual grassland occurs in undeveloped areas in the Project site. Annual grassland is primarily dominated by nonnative Mediterranean annual grasses such as wild oats (*Avena barbata, A. fatua*) and bromes (*Bromus diandrus, B. hordeaceus*), as well as nonnative herbs such as yellow star-thistle (*Centaurea solstitialis*), common vetch (*Vicia sativa* ssp. *nigra*), wild radish (*Raphanus sativus*), black mustard (*Brassica nigra*) geranium (*Geranium dissectum, G. molle*), storksbill (*Erodium botrys*), and prickly lettuce (*Lactuca serriola*).

Vegetation Alliances

- *Avena* (*barbata, fatua*) (44.150.00) Wild oats grasslands
- *Bromus* (*diandrus, hordeaceus*) (42.026.00) Annual brome grasslands

Ruderal

Ruderal habitat occurs in areas of upland disturbance such as undeveloped graded lots, unpaved parking lots, the margins of dirt roads, and other areas subjected to ongoing or past disturbances (e.g., vehicle use, grading). Due to the disturbance regime, these communities are made up of non-native annual and perennial herbs that establish and spread in disturbed areas, such as turkey mullein (*Croton setigerus*), fennel (*Foeniculum vulgare*), redstem filaree (*Erodium cicutarium*), and yellow star-thistle.

Vegetation Alliances

- *Centaurea* (*solstitialis, melitensis*) semi-natural herbaceous stands (42.042.00) Yellow star-thistle fields

Barren

Barren habitat is defined by the absence of vegetation (less than two percent total vegetation cover by herbaceous species and less than 10 percent cover by tree or shrub species). Existing barren habitats in the Project site include dirt roads along Florin Creek and unvegetated areas within Florin Creek Park.

Urban/Developed

The Project site is located within an urban area of unincorporated Sacramento County, adjacent to the City of Sacramento consisting of residential housing and commercial infrastructure. Urban/developed portions of the Project site include Florin Creek Park, paved roadways, parking lots, and walkways and bike paths. There is dense residential and commercial development surrounding the study area. Urban areas are typically landscaped with ornamental species, paved, or otherwise developed and generally lack natural vegetation. Vegetation associated with developed areas consists of lawns, ornamental shrubs, shade trees and hedges.

Freshwater Emergent Wetland (Remnant)

Freshwater emergent wetlands are dominated by erect, rooted herbaceous hydrophytic plants growing up to two meters tall. This habitat is frequently flooded; consequently the roots of the plants are adapted to an anaerobic environment. There is a single freshwater emergent wetland in the southwest corner of Florin Creek Park. Common cattail (*Typha latifolia*) and nutsedge (*Cyperus eragrostis*) are the dominant species in the freshwater emergent wetland. Species common to this habitat type also occurs sporadically within the channel for Florin Creek. The freshwater emergent wetland in Florin Creek Park is not a naturally occurring wetland as it was constructed as part of a waterfall/wetland park feature that was irrigated with water from the Park irrigation system. Irrigation for this waterfall feature was shut off approximately 15 years ago.

Vegetation Alliances

- *Typha (angustifolia, domingensis, latifolia)* (52.050.00) Cattail marshes

Riverine (Intermittent)

Riverine habitats are distinguished by intermittent or continually running water, and occur in association with a variety of terrestrial habitats. Riverine habitat in the Project site includes Florin Creek, which flows east to west just south of Florin Creek Park. This channel is an urban stream, with its bed lined by concrete. The channel undergoes periodic maintenance, including mowing and removal of vegetation along its banks. This channel drains a large urban area upstream of the study area and during normal years flows consistently throughout the winter and spring months. The drainage channel is generally unvegetated, but supports annual grassland species on its upper banks and sporadic patches of cattail, nutsedge, and other hydrophytic vegetation below the ordinary high water mark (OHWM).

Lacustrine

One ornamental pond is present within the Project site, a man made feature originally constructed as an aesthetic element of Florin Creek Park. The pond is choked with algae, likely a result of fertilizer runoff from the surrounding park, and has ornamental turf grass growing along the margins. The water source for this feature is likely municipal, although it may receive minimal runoff during storm events and from irrigation from the immediate area.

Special-Status Species

Special-status plant species are those that are legally protected under state and federal Endangered Species Acts or other regulations as well as species that are considered sufficiently rare by the scientific community to qualify for such listing. These species are in the following categories:

1. Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 Code of Federal regulations [CFR] 17.12 [listed plants], 17.11 [listed animals] and various notices in the Federal Register [FR] [proposed species]).

2. Species that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (61 FR 40, February 28, 1996);

3. Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 California Code of Regulations [CCR] 670.5);

4. Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.);

5. Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (State CEQA Guidelines, Section 15380); and

6. Plants considered under the CNPS to be "rare, threatened or endangered in California" (Rank 1A, 1B, and 2 in CNPS, 2013) as well as CNPS Rank 3 and 4[1] plant species.

A list of special-status species that have the potential to occur within the vicinity of the Project site was compiled based on data in the CNDDB (CDFW, 2014), the USFWS list of Federal Endangered and Threatened Species that Occur in or may be Affected by the Project (USFWS, 2014), and the CNPS Inventory of Rare and Endangered Plants (CNPS, 2014). A list of special-status species, their general habitat requirements, and an initial assessment of their potential to occur within the Project site is provided below in **Table 2-2**. Recorded observations of special-status species within a five-mile radius of the Project site are shown in **Figure 2-2** (CDFW, 2014). **Table 2-2** only lists those special-status plants and animals with medium to high potential to occur within the Project site. Only those species classified as having a medium or high potential for occurrence in the Project site were considered in the impact analysis. The full list of species is presented in Appendix B. The "Potential for Occurrence" category is defined as follows:

- **Unlikely:** The project site and/or immediate area do not support suitable habitat for a particular species or the project site is outside of the species known range.

[1] List 3 plants may be analyzed under CEQA §15380 if sufficient information is available to assess potential impacts to such plants. Factors such as regional rarity vs. statewide rarity should be considered in determining whether cumulative impacts to a List 4 plant are significant even if individual project impacts are not. CNPS List 3 and 4 may be considered regionally significant if, e.g., the occurrence is located at the periphery of the species' range, or exhibits unusual morphology, or occurs in an unusual habitat/substrate. For these reasons, CNPS List 3 and 4 plants should be included in the special-status species analysis. List 3 and 4 plants are also included in the California Natural Diversity Database's (CNDDB) Special Plants, Bryophytes, and Lichens List. [Refer to the current online published list available at: http://www.dfg.ca.gov/biogeodata.].

- **Low Potential:** The project site and/or immediate area only provide limited and low quality habitat for a particular species. In addition, the known range for a particular species may be outside of the immediate Project site.

- **Medium Potential:** The project site and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.

- **High Potential:** The project site and/or immediate area provide ideal habitat conditions for a particular species and/or known populations occur in immediate area and within the potential area of impact.

Conclusions regarding habitat suitability and species occurrence are based on reconnaissance surveys conducted by ESA, as well as the analysis of existing literature and databases described previously.

Special-status species that have the potential to occur within the Project site include purple martin and Sanford's arrowhead.

TABLE 2-2
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Birds			
Progne subis Purple martin	--/SSC/--	Found in deserts and often near water in California. Nests in abandoned woodpecker cavities and sometimes man-made houses west of the Rocky Mountains.	**Medium.** Suitable habitat is present within the large mature trees along the pipeline alignment; in addition nest boxes at the nearby residences could provide suitable habitat for this species.
Plants			
Sagittaria sanfordii Sanford's arrowhead	--/--/1B.2	Perennial rhizomatous herb found in assorted freshwater habitats including marshes, swamps, and seasonal drainages from 0-2,133 feet in elevation. Blooms May-October.	**Medium.** There is the potential for this species to occur along Florin Creek within the Project site. It has been recorded in similar habitat less than one mile from the Project site in 2012 (CDFW 2014).

KEY:

Federal: (USFWS)

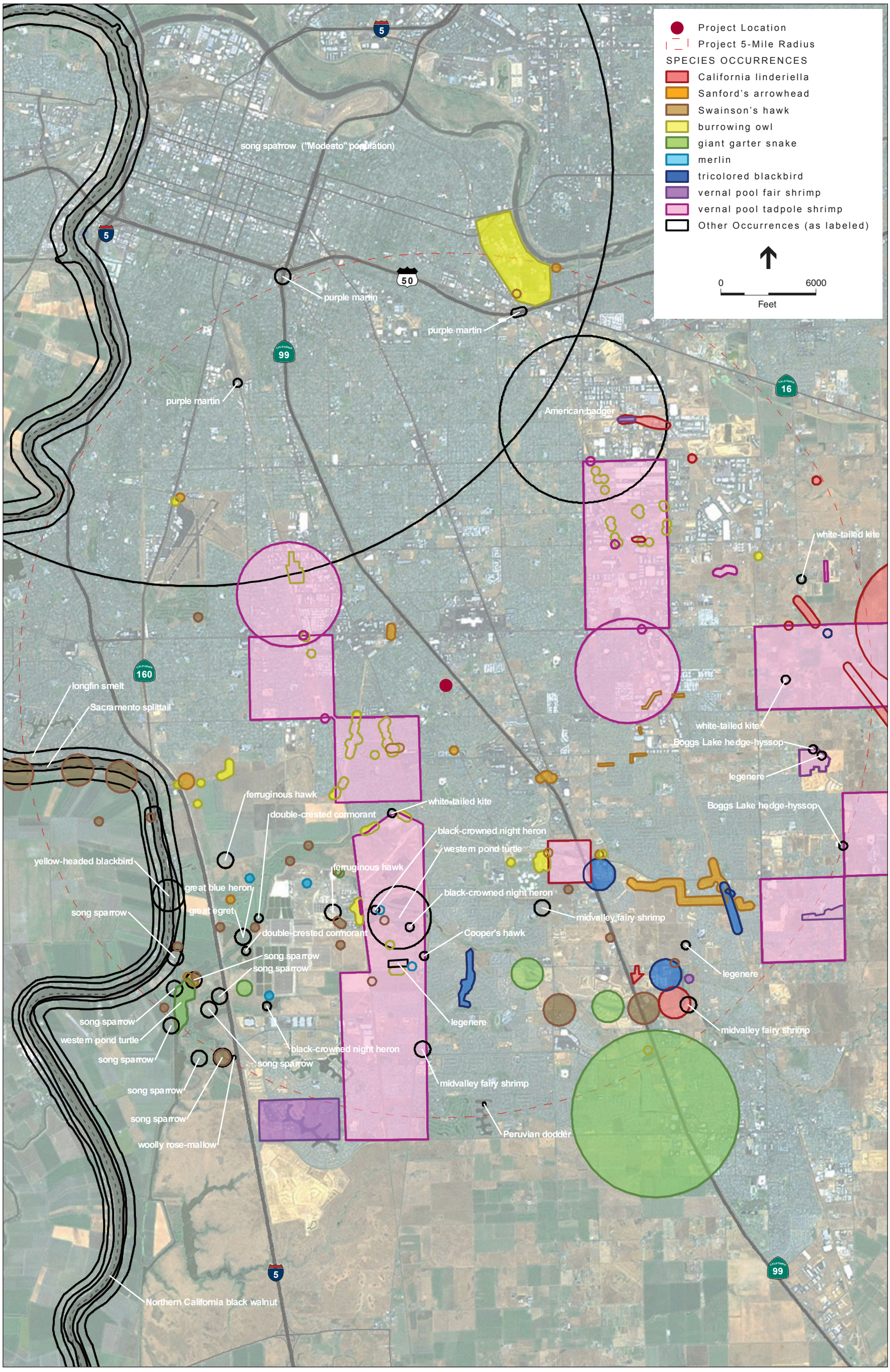
FE = Listed as Endangered by the Federal Government
FT = Listed as Threatened by the Federal Government
FC = Candidate for listing by the Federal Government

State: (CDFW)

SE = Listed as Endangered by the State of California
ST = Listed as Threatened by the State of California
SR = Listed as Rare by the State of California (plants only)
SSC = California Species of Special Concern
SFP = State Fully Protected

– = No Listing

SOURCES:CDFW, 2014



SOURCE: i-cubed, 1999; ESRI, 2013; CNDDB, 2014; ESA, 2014

Figure 2-2
Special-Status Species Occurrences near the Project Site

This page intentionally left blank

Special-Status Plants

Sanford's arrowhead

Sanford's arrowhead is listed by the California Native Plant Society as being fairly endangered in California, meaning that 20-80 percent of the known occurrences are threatened. Sanford's arrowhead is a rhizomatous, emergent herb found in marshes and swamps from 0 to about 2,130 feett in elevation. Sanford's arrowhead is known to occur in Butte, Del Norte, El Dorado, Fresno, Merced, Mariposa, Orange, Placer, Sacramento, Shasta, San Joaquin, Tehama, and Ventura counties; however, this species is believed to be extirpated from southern California and mostly extirpated from the Central Valley. Sanford's arrowhead blooms from May to October (CNPS 2014).

There are several occurrences reported in the CNDDB within 5 miles of the Project site. The majority of these occurrences were reported more than 10 years ago; however, one occurrence was recorded in 2012, less than one mile south of the Project site. This occurrence was documented along the north bank of Elder Creek, approximately 200 feet west of the Center Parkway Bridge over Elder Creek, near a City of Sacramento sump outfall. Similar to Florin Creek, Elder Creek is lined with concrete. At Elder Creek the species was found growing out of cracks in the concrete. It is possible that this species could disperse into Florin Creek, as it is a tributary to Elder Creek, and could establish a population within the Project site.

Special-Status Wildlife

Purple Martin

The purple martin is a California Species of Special Concern. Purple martins are colonial, with dozens of martins nesting in the same spot; they feed in open areas, especially near water. Purple martins forage over towns, cities, parks, open fields, dunes, streams, wet meadows, beaver ponds, and other open areas (Brown, 1997). In eastern North America they used to breed along forest edges and rivers, where dead snags offered woodpecker holes to nest in. But since humans began supplying nest boxes for them, eastern martins live almost exclusively near cities and towns. In the West, martins prefer to nest in woodpecker holes in mountain forests or Pacific lowlands (Brown, 1997). Purple martin wintering grounds are savannas and agricultural fields in Bolivia, Brazil, and elsewhere in South America.

Purple martin eat flying insects at altitudes higher than other swallows, often exceeding 150 feet and sometimes 500 feet or more off the ground. When they encounter prey, they turn suddenly sideways or upward, speed up, and then flare their tails as they trap the insect. Their diet consists of beetles, flies, dragonflies, damselflies, leafhoppers, grasshoppers, crickets, butterflies, moths, wasps, bees, caddis flies, spiders, cicadas, termites, and mayflies (Brown, 1997). They feed during the day, rarely in groups but often in pairs.

No occurrences are reported within 5 miles of the Project site. Potentially suitable nesting habitat may be present within the large mature trees throughout the Project site. Nest boxes within the nearby residential areas may also attract nesting purple martins.

Raptor Species

Common raptor species, such as the red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*), are not considered special-status species because they are not rare or protected under the federal or State Endangered Species Acts. However, nests of these species are still protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. Common raptor species are expected to be found within the Project site.

Migratory Birds

A large number of common bird species are migratory and fall under the jurisdiction of the MBTA. A comprehensive list of MBTA species that could occur in the project site is too lengthy to provide here, but includes such familiar species as northern mockingbird (*Mimus polyglottos*), mourning dove and black phoebe (*Saynoris nigra*). Numerous migratory bird species have the potential to nest within the Project site. The MBTA makes it illegal to destroy any active migratory bird nest.

Sensitive Natural Community

A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, state, or federal agencies. Most sensitive natural communities are given special consideration because they perform important ecological functions, such as maintaining water quality and providing essential habitat for plants and wildlife. Some plant communities support a unique or diverse assemblage of plant species and therefore are considered sensitive from a botanical standpoint. CEQA identifies the elimination of such communities as a significant impact. The most current version of the CDFW's *List of California Terrestrial Natural Communities* (CDFW, 2010) indicates which natural communities are of special status given the current state of the California classification. The CDFW formerly tracked sensitive natural communities in the CNDDB. Due to funding cuts no new occurrences of sensitive natural communities have been added to the CNDDB since the mid-1990s, although the database continues to include those occurrences recorded prior to the program getting defunded. The CDFW's *List of California Terrestrial Natural Communities* (CDFW, 2010) ranks vegetation alliances in California according to their degree of imperilment (as measured by rarity, trends, and threats). All alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1-S3 are considered of special concern by the CDFW, and all associations within them are also considered to be highly imperiled. CDFW guidance recommends all alliances with State ranks of S1-S3 be considered and analyzed under CEQA.

None of the vegetation alliances within the Project site have a state rank of S1-S3, therefore the Project site does not support sensitive natural communities as defined under CEQA regulations.

Wildlife Movement Corridors

Wildlife movement corridors are considered an important ecological resource by various agencies (CDFW and USFWS) and under CEQA. Movement corridors may provide favorable locations

for wildlife to travel between different habitat areas such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. Topography and other natural factors, in combination with urbanization, can fragment or separate large open-space areas. Areas of human disturbance or urban development can fragment wildlife habitats and impede wildlife movement between areas of suitable habitat. This fragmentation creates isolated "islands" of vegetation that may not provide sufficient area to accommodate sustainable populations, and can adversely affect genetic and species diversity. Movement corridors mitigate the effects of this fragmentation by allowing animals to move between remaining habitats, which in turn allows depleted populations to be replenished and promotes genetic exchange between separate populations.

Florin Creek within the Project site may provide a movement corridor for wildlife to disperse. Florin Creek could allow common aquatic and terrestrial wildlife species to safely disperse back and forth between suitable habitats upstream and downstream. Highways and roads can present an impassable barrier to many wildlife species and are hazardous for wildlife to cross. Florin Creek could provide important movement corridors, which allow dispersal and subsequent gene flow between wildlife populations separated by roads and populated areas.

Critical Habitat

Critical habitats are areas considered essential for the conservation of a species listed as endangered or threatened under the federal Endangered Species Act. Critical habitats are specific geographic areas that contain features essential for conservation of listed species and may require special management and protection. Critical habitat may include an area not currently used by an endangered or threatened species, but that will be needed for species recovery. Proponents of projects involving a federal agency or federal funding are required to consult with the USFWS to ensure that project actions will not destroy or adversely modify critical habitat.

A review of GIS information for USFWS Critical Habitat for Threatened and Endangered Species shows that the Project site is currently not located within any designated critical habitat.

Discussion

a) **Less-than-Significant with Mitigation**. The following sub-sections provide a discussion of potential effects to special-status plant and animal species.

Special-Status Plants

The Project site provides suitable habitat for Sanford's arrowhead (*Sagittaria sanfordii*). Florin Creek provides marginal habitat for Sanford's arrowhead. As the field survey was conducted outside the normal blooming period for this species (May-October) and this species is a perennial plant, identification focused on vegetative features (i.e. leaves and recurved pedicels). The Project site is situated primarily within a highly urbanized area of the City of Sacramento. Although this species has not previously been observed within the Project site, presence should be assumed as the survey was

conducted outside of the normal blooming period for this species and this species has been documented in riparian habitats less than one mile from the Project site. It could disperse into riparian or wetland areas of the Project site prior to construction from populations in the vicinity. Therefore, implementation of the Project could have a potentially significant impact on special-status plants. Implementation of **MM BIO-1** would reduce potential impacts to special-status plants to a less than significant level.

Special-Status Wildlife

Nesting Songbirds and Raptors. Potentially suitable nesting and foraging habitat for purple martin, common raptors, and migratory birds is present within the Project site. If purple martin, as well as other migratory passerine birds and raptors protected by the Migratory Bird Treaty Act, are present on or near the Project site, construction activities could cause nest abandonment, or loss of reproductive potential at active nests located near the Project site. Other potential impacts to these species during project construction include the potential for harm to individual birds, if present, and the loss of suitable nesting and foraging habitat. Therefore, the Project could have a potentially significant impact on nesting birds. Implementation of **MM BIO-2** would reduce potential impacts to nesting birds to a less than significant level.

> **Mitigation Measure BIO-1:** A qualified biologist shall conduct a pre-construction survey for Sanford's arrowhead within the impacted stream channel and designated wetlands within 30 days prior to construction. If Sanford's arrowhead is not found, then no further measures are necessary. If Sanford's arrowhead is found within the Project site, CDFW will be notified at least 10 days prior to dewatering or construction impacts in the vicinity of Sanford's arrowhead in accordance with the California Native Plant Protection Act of 1977 (CDFW Code Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location.
>
> **Mitigation Measure BIO-2:**
>
> - ***Avoid Active Nesting Season*.** To avoid impacts to tree and shrub nesting bird species, conduct all tree and shrub removal and grading activities during the non-breeding season (generally September 1 through January 31) if feasible.
> - ***Conduct Pre-construction Nesting Bird Surveys*.** If construction, grading or other project-related activities are scheduled during the nesting season (February 1 to August 31), pre-construction surveys would be conducted by a qualified wildlife biologist to identify active nests within 250 feet of proposed construction activities. The surveys would be conducted no less than 14 days and no more than 30 days prior to the beginning of construction. The results of the survey would be emailed to CDFW at least three days prior to construction. Surveys would be conducted by a qualified biologist in accordance with the following protocols:
>   - Surveys for purple martin and nesting raptors would include at least two preconstruction surveys (separated by at least two weeks).

- Surveys for other migratory bird species would take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat.
- If the pre-construction surveys do not identify any nesting raptors or other nesting migratory bird species within areas potentially affected by construction activities, no further mitigation would be required. If the pre-construction surveys do identify nesting raptors or other nesting bird species within areas that may be affected by site construction, the following would be implemented.

- ***Avoid Active Bird Nest Sites.*** Should active nest sites be discovered within areas that may be affected by construction activities, additional measures would be implemented as described below.
  - *Purple martin and other Migratory Birds:* If active nests are found, project-related construction impacts would be avoided by establishment of appropriate no-work buffers to limit project-related construction activities near the nest site. The size of the no-work buffer zone would be determined in consultation with the CDFW although a 500-foot radius would be used when possible. The no-work buffer zone would be delineated by highly visible temporary construction fencing where appropriate. In consultation with CDFW, monitoring of nest activity by a qualified biologist may be required if the project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No project-related construction activity would commence within the no-work buffer area until a qualified biologist and CDFW confirms that the nest is no longer active.

b) **No Impact.** There are no sensitive natural communities that occur within the Project site.

c) **Less-than-significant with Mitigation.** Florin Creek is considered waters of the U.S. and fall under the jurisdiction of the USACE per Section 404 of the CWA. Approximately 0.14 acres of jurisdictional wetlands and waters of the US were identified within the Project site and include Florin Creek. The ornamental pond located in the southern part of Florin Creek Park is a manmade feature excavated in dry land and was created as an aesthetic element of the park. Thus, under EPA and USACE guidance this feature should not be considered regulated under the CWA. The remnant freshwater emergent wetland located in the southwestern corner of Florin Creek Park was constructed as a feature of the park. The hydrology source for the wetland feature is largely artificial, derived from the park's irrigation system. This freshwater emergent wetland in the study area appears to be reverting to upland habitat. Therefore, because the feature is reverting to upland in the absence of artificial irrigation, under EPA and USACE guidance this feature should not be considered a regulated feature under the CWA. Although Project construction would implement the requirements of the General Construction NPDES permit from the CVRWQCB, the Project could result in other direct and indirect impacts to wetlands and waters of the U.S. Implementation of **MM BIO-3** would reduce potential impacts to less than significant.

Mitigation Measure BIO-3: If the verified wetland delineation determines that project construction would result in the loss of wetlands and other waters of the U.S, the Project applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the USACE, and a Section 401 permit from the Regional Water Quality Control Board (RWQCB) and shall comply with all conditions of permits received. Terms of these permits would incorporate additional provisions to mitigate for the loss of waters of the U.S., including compensatory mitigation, and would ensure the "no net loss" of wetlands.

d) **Less-than-significant.** The proposed Project would not substantially interfere 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. The Project site is not located within an established native resident or migratory wildlife corridor or wildlife nursery site. However, as discussed above, Florin Creek may provide a movement corridor for wildlife to disperse. Construction noise could temporarily alter foraging patterns of resident wildlife species and temporarily disrupt wildlife movement within the Project site. However, the disturbance would only occur during project construction and the disruption of wildlife movement would be temporary in nature. Therefore, impacts to wildlife or fish movement or migration are considered less than significant.

e) **Less-than-Significant with Mitigation**. While a formal tree survey has not been conducted for the Project site, native oak species and other species listed in the Sacramento County General Plan landmark and heritage tree protection policies, have been observed during field surveys. Further, the Sacramento County Tree Preservation Ordinance calls for the preservation of native oak trees measuring a minimum of 6 inches in diameter or 10 inches aggregate for multi-trunk trees at 4.5 feet above ground. However, if preservation cannot be attained, then loss of the protected trees shall be compensated through a tree removal permit and fee paid into the County's Tree Preservation Fund. Construction activities may occur within the dripline of native oak trees or other protected trees, or may result in the direct removal of native oak trees or other protected trees. Work within the dripline of trees may cause permanent damage to the root system and the subsequent loss of the tree. Impacts to protected trees would result in a significant impact. This impact would be reduced to a less-than-significant level with the implementation of **MM BIO-4**.

Mitigation Measure BIO-4: Trees adjacent to construction activities may require additional protection. Where feasible, buffer zones shall include a minimum one-foot-wide zone outside the dripline for oaks or landmark trees. The locations of these resources shall be clearly identified on the construction drawings and marked in the field. Fencing or other barriers shall remain in place until all construction and restoration work that involves heavy equipment is complete. Construction vehicles, equipment, or materials shall not be parked or stored within the fenced area. No signs, ropes, cables, or other items shall be attached to the protected trees. Grading, filling, trenching, paving, irrigation, and landscaping within the driplines of oak trees shall be limited. Grading within the driplines of oak trees shall not be permitted unless specifically authorized by a

Certified Arborist. Hand-digging must be done in the vicinity of major trees and as recommended by a Certified Arborist to prevent root cutting and mangling by heavy equipment.

f) **No Impact**. The Proposed Project is located within Sacramento County which is currently in the process of developing the South Sacramento Habitat Conservation Plan (SSHCP). The SSHCP will cover 40 different species of plants and wildlife including 10 that are state or federally listed as threatened or endangered. The SSHCP will be an agreement between state/federal wildlife and wetland regulators and local jurisdictions, which will allow land owners to engage in the "incidental take" of listed species (i.e., to destroy or degrade habitat) in return for conservation commitments from local jurisdictions. However, at this time, development of the SSHCP is in-progress and has not been adopted by the County and is therefore not applicable to the Proposed Project. Thus, the Proposed Project is currently not located within the boundaries of any adopted NCCP or HCP. There would be no impact.

References

California Department of Fish and Wildlife (CDFW), 2010. *List of Vegetation Alliances and Associations*. Vegetation Classification and Mapping Program. Sacramento, CA. http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp

California Department of Fish and Wildlife (formally known as California Department of Fish and Game) (CDFW), 2012. Staff Report on Burrowing Owl Mitigation, www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf.

California Department of Fish and Wildlife (CDFW). 2014. California Natural Diversity Database (CNDDB) search for the U.S. Geological Survey 7.5-minute Davis topographic quadrangle, and surrounding 8 quadrangles; information accessed on January 8th, 2014.

California Native Plant Society (CNPS), 2014. Inventory of Rare and Endangered Plants (online edition, v8-2). California Native Plant Society. Sacramento, CA. Accessed on Wednesday, January 8th, 2014.

Mayer, K.E. and W.F. Laudenslayer, ed. 1988. *A Guide to Wildlife Habitats of California*, California Department of Forestry and Fire Protections, Sacramento, CA, 165 pp.

Miles, S,R. and C.B. Goudey, 1997. *Ecological Subregions of California: Section and Subsection Descriptions*. USDA Forest Service, Pacific Southwest Region Publication R5-EM-TP-005. San Francisco, CA.

Sawyer, J. O., and T. Keeler-Wolf. 2009. A manual of California vegetation, 2nd Edition. California Native Plant Society. Sacramento, California.

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

United States Fish and Wildlife Service. 2014. Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Project site Davis U.S.G.S. 7 1/2 Minute Quads. Species list generated October 17, 2013.

Zeiner, D. C., W. F. Laudenslayer, Jr., and K. E. Mayer (compiling editors). 1988. California's wildlife. Volume I. Amphibians and reptiles. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, California.

2.5 Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
5.	**CULTURAL RESOURCES— Would the project:**				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b)	Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

The following discussion of cultural resource impacts is based on information from North Central Information Center (NCIC), historical research, and surveys of the Project Site and adjacent areas for the Proposed Project.

Discussion

a) **No Impact.** CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as any building, structure, site, or object listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), or determined by the lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. Archival review and field survey conducted by ESA architectural historian Katherine Anderson on February 28, 2014 identified eight mid-century residences within or adjacent to the project site along Orange and Persimmon Avenues. Archival review and evaluation of these individual structures recommended these residences as ineligible for listing in the National Register. Research did not determine that they are significantly associated with larger patterns of history (Criterion 1), important individuals (Criterion 2), architectural design (Criterion 3), or information regarding prehistory (Criterion 4). Subsequently, ESA recommends these resources ineligible for listing in the California Register. No other historic period resources were identified to be impacted directly or indirectly by the Proposed Project. Therefore, the Proposed Project would have no impact on historical resources under CEQA.

b) **Less-than-Significant with Mitigation.** CEQA requires the lead agency to consider the effects of a project on archaeological resources and to determine whether any identified archaeological resource is a historical resource. CEQA Guidelines Section 15064.5 also requires consideration of potential project impacts on "unique" archaeological resources

that do not qualify as historical resources. Public Resources Code (PRC) Section 21083.2 defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria. The resource:

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

PRC Section 15064.5(c) (4) provides that, if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of a project on the resource are not considered significant.

Archival review completed at the NCIC of the California Historic Resources Information System on December 19, 2013 determined that eight previous cultural resources investigations occurred within ½ mile of study area. Previous survey efforts have identified no prehistoric or historic period cultural resources within ½ mile of the project.

ESA requested a search of the Native American Heritage Commission's (NAHC) Sacred Lands File (SLF) database on December 19, 2013. The results of the SLF search failed to indicate the presence of any known sacred Native American sites in the immediate Project area. ESA contacted the individuals and organizations affiliated with the area as identified by the NAHC by letter on January 10, 2014 to solicit their comments and concerns regarding the Proposed Project. Interested individuals and organizations from that list have contacted SAFCA for more information. SAFCA staff will continue consultation with interested individuals in response to the NAHC letter.

ESA archaeologist Scott Baxter performed an intensive level pedestrian survey of the project area on February 28, 2014. Mr. Baxter did not identify any prehistoric or historic period archaeological resources during the course of survey. Accidental discovery of archaeological materials during ground-disturbing activities cannot be entirely discounted. In the unlikely event that archaeological materials are unearthed, with implementation **Mitigation Measure CUL-1**, Project impacts to archaeological resources would be less-than-significant.

> **Mitigation Measure CUL-1:** If previously undiscovered cultural resources are encountered, all activity shall cease until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as

hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist determines that the resources may be significant, they will notify SAFCA. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources.

c) **Less-than-Significant with Mitigation.** Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. In general, older sedimentary rocks (more than 10,000 years old) are considered most likely to yield vertebrate fossils of scientific interest.

The project site is located in the Pleistocene-age Riverbank Formation which is regarded as sensitive to paleontological resources, specifically at depths below 10 feet. No known paleontological resources or unique geologic features exist within the Project area, and the City of Sacramento and its surrounding vicinity are not typically considered highly sensitive for paleontological resources (Wagner et al, 1981; Sacramento General Plan, 2009). Additionally, the Proposed Project anticipates maximum construction depths of 8 feet for the retention basins. Regardless, the potential for accidental discovery cannot be discounted. In the unlikely event that paleontological materials are unearthed, with implementation **Mitigation Measure CUL-2**, project impacts to paleontological resources would be less-than-significant.

> **Mitigation Measure CUL-2:** If paleontological resources are encountered during earthmoving activities, the construction crew shall immediately cease work. SAFCA shall retain a qualified paleontologist to evaluate the resource and prepare a proposed mitigation plan. The proposed mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations determined by SAFCA to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.

d) **Less-than-Significant with Mitigation.** Results of the archival review and field survey discussed above indicate the potential for the Project area to contain buried cultural materials including human remains. In the unlikely event that human remains are uncovered during ground-disturbing activity, implementation of **Mitigation Measure CUL-3**, project impacts to human remains would be less than significant.

> **Mitigation Measure CUL-3:** If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the Sacramento County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA

Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

References

City of Sacramento, 2009. Sacramento 2030 General Plan; adopted March 3, 2009.

Wagner, D.L., C.W. Jennings, T.L. Bedrossian, and E.J. Bortugno. 1981. Geological Map of the Sacramento Quadrangle. California Geological Survey, Regional Geologic Map No. 1A, 1:250,000 scale

2.6 Geology, Soils, and Seismicity

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

Environmental Setting

Sacramento County is located within an area of relatively low seismicity, and no Alquist-Priolo Fault Zones are located in the County. According to the *Fault Activity Map of California*, the nearest faults to the project site with activity within the last 200 years are the Concord, Green Valley, Greenville, Hayward, and Cordelia faults. The closest known fault is the Vaca fault, located approximately 25 miles to the southwest. Although no active faults are located in the immediate vicinity of the Project site and seismic hazards related to surface ground rupture are unlikely, the Project area is still anticipated to be subject to the potential effects of ground motion from regional faults.

Soil resources in the Project area consist of the San Joaquin-Urban land complex, 0 to 2 percent slopes and the Galt-Urban land complex, 0 to 2 percent slopes. The San Joaquin series is a moderately deep and well-drained soil with very slow permeability, low erosion potential, high shrink-swell potential, and moderate risk of corrosion. The Galt series is a moderately deep and moderately well drained soil with slow permeability, low erosion potential, high shrink-swell potential, and low risk of corrosion.

Discussion

ai) **No impact.** The Proposed Project is not located in an Alquist-Priolo Earthquake Fault Zone, as defined by the California Department of Conservation (CDC), Geological Survey (CGS, formerly the Division of Mines and Geology), and no active or potentially active faults exist on, or in the immediate vicinity of the site (Sacramento County, 2011).

aii-aiv) **Less-than-Significant.** According to CDC earthquake shaking potential maps, the Proposed Project is located in an area that is distant from known, active faults, and will experience lower levels of shaking less frequently, with damage likely limited to weaker masonry structures (CDC, 2008). Additionally, the Project is located in an area of flat topography that is not subject to landslides. The Project would involve excavating to a depth of no more than eight feet for installation of the detention basins and where required would incorporate the use of trench shoring measures consistent with the California Building Code and California Division of Occupational Health and Safety (CalOSHA) requirements for trenching and excavation activities. Furthermore, the detention basins would be landscaped after construction and would stabilize soil along the side slopes of the detention basins. As a result, the potential for slope instability hazards during construction of the Project is not considered significant. Therefore, strong seismic shaking, seismic ground failure, and landslides are not anticipated.

Even though the underlying soils are characterized as having high shrink-swell potential, the Project does not include any structures that would be at risk of hazards associated with liquefaction due to seismic settlement.

b) **Less-than-Significant.** Construction activities for the Proposed Project would include earthmoving such as clearing and grubbing, excavation, compaction, and disposal of soil to nearby parcels and local landfills. Earthmoving activities would result in the temporary disturbance of soils which could increase the rate and amount of soil erosion. However, soils on the Project site are characterized as having a low erosion potential and, therefore, would not likely be subject to substantial increases in wind and/or water erosion. In addition, stockpiled soils would be covered and disturbed areas would be re-vegetated when construction activities are complete. For discussion of the potential for increased rates of sediments in surface waters due to soil erosion refer to Checklist Item 2.9c.

c-d) **Less-than-Significant.** As described previously, the Project site primarily contains soils with high shrink-swell potential. However, no new buildings or habitable structures would be constructed as part of the Project. In addition, the Project would be designed and engineered according to engineering standards for multi-use basins to prevent Project components from risks associated with unstable soil conditions such as lateral spreading, subsidence, liquefaction, or collapse.

e) **No Impact.** The proposed Project does not include the installation of any septic systems or alternative wastewater disposal systems.

References

California Department of Conservation (CDC), 2008. Earthquake Shaking Potential for California. 2008.

NRCS, 1993. Natural Resource Conservation Service Soil Survey of Sacramento County, California. April, 1993.

2.7 Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
7. GREENHOUSE GAS EMISSIONS — Would the Project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Environmental Setting

Scientists have concluded that climate change ("global warming") is a regional as well as global concern that is very likely caused primarily by human activity. Greenhouse gas (GHG) emissions, primarily carbon dioxide (CO_2) from fossil fuel combustion and vegetation removal, are increasing atmospheric concentrations of GHGs and are believed to be the primary cause of contemporary global warming. GHGs from human activities are shown to trap more of the sun's heat in the earth's atmosphere, resulting in warming. Nitrous oxide (N_2O) and methane (CH_4) also contribute to global warming.

Executive Order S-3-05 establishes a goal to reduce California's GHG emissions to:

- 2000 levels by 2010,
- 1990 levels by 2020, and
- 80 percent below 1990 levels by 2050

This goal was further reinforced with the Global Warming Solutions Act of 2006 (Assembly Bill 32 [AB 32]). AB 32 sets the same overall GHG emissions reduction goals, while further mandating that the California Air Resources Board (CARB) create a plan (including market mechanisms), and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 directs state agencies to begin implementing AB 32. Pursuant to AB 32, CARB adopted a Scoping Plan in 2008, outlining measures to meet the 2020 GHG reduction limits (CARB, 2008). To meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions or about 15 percent from today's levels. The Scoping Plan estimates a reduction of 174 million metric tons of carbon dioxide equivalent (CO_2e) from the transportation, energy, agriculture, forestry, and high global warming potential sections. CARB has identified an implementation timeline for the GHG reduction strategies in the Scoping Plan. Some measures may require new legislation to implement, some would require subsidies, some have already been developed, and some would require additional effort to evaluate and quantify.

Senate Bill 97 (SB 97) provides greater certainty to lead agencies that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. Pursuant to SB 97, the

state's Natural Resources Agency adopted amendments to the State CEQA Guidelines to address analysis and mitigation of the potential effects of GHG emissions in CEQA documents and processes.

As described in the *Sacramento County Climate Action Plan – Strategy and Framework Document*, Sacramento County developed an inventory of GHG sources and emissions using data from 2005. This 2005 level represents the baseline emissions referenced in the CARB Scoping Plan. Based on this 2005 emissions inventory, Sacramento County has the goal is to reduce community emissions from the unincorporated County from 4,987,668 to 4,337,103 (about 650,600) metric tons of CO_2e by 2020 (Sacramento County, 2011).

Discussion

a-b) **Less-than-Significant with Mitigation.** The Proposed Project would generate GHGs during construction activities. The SMAQMD, in its *CEQA Air Quality Guidelines* (SMAQMD, 2009), does not establish significance thresholds for construction-related emission impacts. However, SMAQMD has developed a list of Basic Construction Emission Control Practices to reduce construction GHG emissions. GHGs would be generated by off-road construction equipment, haul trucks, and by worker commute trips to the Project site. Emissions from construction activities associated with the Proposed Project would generate up to 344 metric tons CO_2e in 2014 or 2015. This is considered a potentially significant impact, and Mitigation Measure GHG-1 is identified to reduce the impact to less than significant.

In regards to operations, the existing Florin Creek Park is moderately used by families and small groups during weekdays and visitation slightly increases during the weekends. The park is currently the home field of the Parkway Soccer Club. Project operations would include a minimal increase in GHG emissions from minor maintenance activities and on-road vehicles from visitors. These emissions sources are already associated with the existing park and would not be substantially increased by the Project. Consequently, the Proposed Project's increase in operational emissions would be negligible.

Overall, since the Project would reduce short-term construction GHGs to the extent feasible, and would generate negligible GHGs during operations, the Project would not generate GHG emissions that would have a significant impact on the environment, nor would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

> **Mitigation Measure GHG-1:** The applicant shall require the construction contractor to include the following SMAQMD best management practices for reducing GHGs in all grading or improvement plans, where feasible:
>
> - Improve fuel efficiency from construction equipment:
>   - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5 minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of

Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.

  - Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
  - Train equipment operators in proper use of equipment.
  - Use the proper size of equipment for the job.
  - Use equipment with new technologies (repowered engines, electric drive trains).
- Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines).
- Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power
- Use an ARB approved low carbon fuel for construction equipment. (NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.)
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).
- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.
- Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.
- Use SmartWay certified trucks for deliveries and equipment transport.
- Develop a plan to efficiently use water for adequate dust control.

References

California Air Resources Board (CARB). *Climate Change Scoping Plan*. Adopted December 11, 2008. Re- approved by the ARB on August 24, 2011.

Sacramento County, 2011. *Sacramento County Climate Action Plan – Strategy and Framework Document.* Adopted November 9, 2011.

Sacramento Metropolitan Air Quality Management District (SMAQMD), 2009. *Guide to Air Quality Assessment*. Adopted December 2009 and last updated October 2013.

2.8 Hazards and Hazardous Materials

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
8.	**HAZARDS AND HAZARDOUS MATERIALS — 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 Section 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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Environmental Setting

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.[2] In some cases past uses can result in spills or leaks of hazardous materials to the ground, resulting in soil and groundwater contamination. The use, storage, transportation and disposal of hazardous materials are subject to numerous federal, State and local laws and regulations.

Information about hazardous materials sites in the Project area was collected by conducting a review of the California Environmental Protection Agency's (CalEPA) Cortese List Data

2 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

Resources (Cortese List) and the State Water Resources Control Board's GeoTracker list. The Cortese List includes data resources that provide information regarding the facilities or sites identified as meeting the Cortese List requirements. The Cortese List is updated at least annually, in compliance with California regulations (California Code Section 65964.6(a)(4)) and includes federal superfund sites, state response sites, non-operating hazardous waste sites, voluntary cleanup sites, and school cleanup sites. The GeoTracker list shows Underground Storage Tanks (UST).

Based on a review of the Cortese List conducted in February 2014, two listed sites are located within 0.5 miles of the Proposed Project (DTSC, 2014). One site, Montgomery Ward, is a Leaking Underground Storage Tank (LUST) site with gasoline as a potential contaminant of concern. The second site, Shell Branded Service Station, is also a LUST cleanup site with methyl tertiary-butyl ether, tert-butyl alcohol, and other fuel oxygenates. Both of these sites are over a quarter of a mile away from the Project site and both sites are located on the opposite side of SR 99 (DTSC, 2014), (SWRCB, 2014).

According to the California Department of Forestry and Fire Protection (CDF), the Proposed Project is not located within a fire hazard severity zone and is therefore at low risk for potential wildfire (CDF, 2007, 2008)

Discussion

a,b) **Less-than-Significant.** Construction activities associated with the Proposed Project would require the use of limited amounts of commonly used materials such as diesel, gasoline, solvents, hydraulic fluid, and grease and other compounds not considered acutely hazardous or hazardous when used in small quantities. However, because federal, state, and local laws and regulations govern the transport, use, storage, handling and disposal of hazardous materials, use of hazardous materials associated with Project construction and operation would be minimized and/or avoided.

c) **Less-than-Significant.** The Project would be constructed within ¼-mile of Saint Charles Borromeo School Catholic Elementary School located at 7580 Center Parkway. Construction of the Project could temporarily increase the transport of materials generally regarded as hazardous materials that are used in construction activities. However, because federal, state, and local laws and regulations govern the transport, use, storage, handling and disposal of hazardous materials, use of hazardous materials associated with Project construction and operation would be minimized and/or avoided.

d) **Less-than-Significant.** The Project is not located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) and therefore would not create a significant hazard to the public or the environment from identified hazardous materials sites. However, excavation activities could result in the discovery of previously unidentified hazardous materials. As described in Chapter 1, the Project contractors would be required by contract with SAFCA to prepare and implement a safety plan prior to construction activities. The safety plan would include directions for

construction workers to halt work if any suspected potentially hazardous materials are exposed during construction. The plan would include measures to test and remove any suspected hazardous materials, and provide instruction on procedures for clean-up and disposal according to federal, state, and local regulations.

e,f) **No impact.** The Project site is not located within an airport land use plan or adjacent to a public or private airport. The nearest airport facility is the Sacramento Executive Airport, located approximately three miles northwest of the project area. Given the distance of the project site from these airports and because the proposed Project does not include any structures of significant height there would be no impact related to aircraft related safety hazard for people working in the project area relative to airport operations

g) **No impact.** The Project would result in construction traffic along roadways that may be used by emergency vehicles. However, given the urban nature of the area, and relatively low traffic volumes, alternative routes are anticipated to be readily available. Additionally, interference with traffic flow would be minimized through the implementation of a construction traffic management plan, to minimize interference from construction activities.

h) **No impact.** The Project site is not located in an area classified by the CDF as a wildland area and the Project would result in a landscaped and vegetated park setting very similar to existing conditions. As a result, wildland fire risk in the project area is less than significant.

References

CDF, 2008. Very High Fire Hazard Severity Zones in LRA, Sacramento County. July, 2008.

CDF, 2007. Fire Hazard Severity Zones in SRA, Sacramento County. November, 2007.

DTSC, 2014. California Department of Toxic Substances Control. DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List), www.envirostor.dtsc.ca.gov. Accessed February 13, 2014.

SWRCB, 2014. GeoTracker list. https://geotracker.waterboards.ca.gov/. Accessed February 14, 2014.

2.9 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
9. HYDROLOGY AND WATER QUALITY — 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 a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

Environmental Setting

The Project site is located along Florin Creek, approximately 3.5 miles east of the Sacramento River. Drainage from Florin Creek enters into Elder Creek which flows into Morrison Creek and ultimately to Beach Lake. Flows from Beach Lake are ultimately pumped into the Sacramento River. The Sacramento River flows into the Sacramento-San Joaquin Delta, San Francisco Bay, and ultimately the Pacific Ocean. Annual precipitation in the vicinity of the Project is approximately 14 inches (DWR, 2004).

Florin Creek has been significantly altered from its original drainage path into a more-or-less linear, trapezoidal cross-section consisting of little or no riparian vegetation. Florin Creek is characterized by a nearly level slope gradient and is annually maintained by the City of Sacramento and Sacramento County for debris and vegetation removal. Flows within the winter months generally consist of localized stormwater runoff. During the summer months Florin Creek experiences low-velocity return flows from a wide-range of urban uses. Typically, the flow is highest during the winter and spring months and lowest in the summer and late fall.

The Federal Emergency Management Agency (FEMA) is responsible for delineating flood zones within the Project area. FEMA's Flood Insurance Rate Maps (FIRMs) show the extent of anticipated 100-year flooding within the Project area, where 100-year flooding is defined as that occurring with a 1% annual chance of recurrence. As shown on **Figure 2-3** the areas downstream of the Proposed Project along Florin Creek are subject to flooding from the 100-year event and some areas are prone to flooding that occurs during even moderate storm events.

The Project site is located in the Sacramento Valley Groundwater Basin, within the larger South American Subbasin (DWR, 2004). The subbasin is bounded to the north by the American River, the east by the Sierra Nevada, the west by the Sacramento River, and the south by the Cosumnes and Mokelumne Rivers. Groundwater levels in the basin have fluctuated since the 1960s with levels recovering during the 1995 to 2000 time period (DWR, 2004). On January 24, 2014, the groundwater levels at a nearby well were measured at 46.1 feet from ground surface to the water level at the well (DWR, 2014). Groundwater quality is generally good and suitable for potable or agricultural uses.

Discussion

a,c,f) **Less-than-Significant**. Construction activities for the Proposed Project would include earthmoving such as clearing and grubbing, excavation, compaction, and disposal of soil to nearby parcels and local landfills. Earthmoving activities would result in the temporary disturbance of soils which could increase the rate and amount of soil erosion. During storm events, eroded soils in surface runoff could increase the amount of sedimentation in receiving waters, including in Florin Creek. In addition, the use of heavy equipment during construction could result in the accidental release of fuels, oils, lubricants, antifreeze, and other construction-related fluids to receiving waters during storm events.

Even though soil on the Project site is characterized as having a low erosion potential, sediments and other pollutants could result in degradation of receiving water quality in Florin Creek and downstream creeks at levels above applicable water quality standards. However, SAFCA would be required to file a Notice of Intent (NOI) for coverage under the General Construction National Pollutant Discharge Elimination System (NPDES) Permit from the Central Valley Regional Water Quality Control Board (CVRWQCB) prior to initiating earth disturbing activities. The conditions of that permit would include implementation of a Stormwater Pollution Prevention Plan (SWPPP) that would include Best Management Practices (BMPs) to reduce erosion and sedimentation, and to minimize inadvertent release of other pollutants into surface and groundwater during construction.

Such measures might include straw wattles and storm drain silt filters. Therefore, with adherence to permitting conditions of the General Construction NPDES Permit, construction related water quality degradation would be minimized. In addition, stockpiled soils would be covered and disturbed areas would be re-vegetated when construction activities are complete.

Following Project construction, changes in the topography of the Project site would result in changes in localized storm runoff, and the conveyance of that runoff internally within the project site and discharged through the culvert outlet into Florin Creek. The proposed Project would replace an existing nature area in the basin footprint with an improved nature area and would replant the basins with turf and other grassland landscaping that will help to provide water quality benefits. As water passes through the basins it would pass over the grassland slopes, turf areas, and created wetland pond, resulting in sediments settling out and allowing stormwater to infiltrate into the ground. By detaining water, the project would allow sediments to settle within the detention basin, thus improving water quality downstream. Detention at the project site would also reduce peak water volumes and velocities downstream, reducing the likelihood of erosion and entrainment of new sediments.

b) **Less-than-Significant**. The Project would not pump groundwater for water supply during construction or operation. The Project would install sidewalks and walkways resulting in minimal new impervious surfaces that would not interfere with groundwater recharge in the area. Further, because groundwater levels within the Project site are approximately more than 30 feet below the elevation of the excavated detention basins, no dewatering would be required.

d,e,h,i) **Less-than-Significant**. New impervious surfaces associated with the Project would be very minor and limited to new sidewalks on the park boundary along Orange Avenue and Persimmon Avenue and new internal walkways in the park. These new impervious surfaces would not be large enough to result in a significant increase in stormwater runoff or flooding. Therefore, the Project would not result in significantly increased runoff associated with new impervious surfaces. The Project design would capture all site stormwater runoff internally and direct stormwater through the basins to the culvert outlet to Florin Creek when stormwater collects above the culvert inlet elevation and the water surface of the creek is lower than that of the basin. Further, the Proposed Project would construct two multi-use basins to minimize downstream flooding up to the 100-year flood event. **Figures 2-3 and 2-4** shows the 100-year floodplain without and with the Project, respectively, as modeled for SAFCA. The Project in conjunction with the Federal Project would remove approximately 450 residences and other structures from the 100-year floodplain primarily downstream of the Project site. Therefore, because the Project would alleviate flooding from Florin Creek during storm events, the Project's impact on flood waters would be beneficial. The Project may result in seasonal and temporary nuisance flooding in the southwest corner of the southern detention basin that could reduce use of the southern field, but the northern field would not be expected

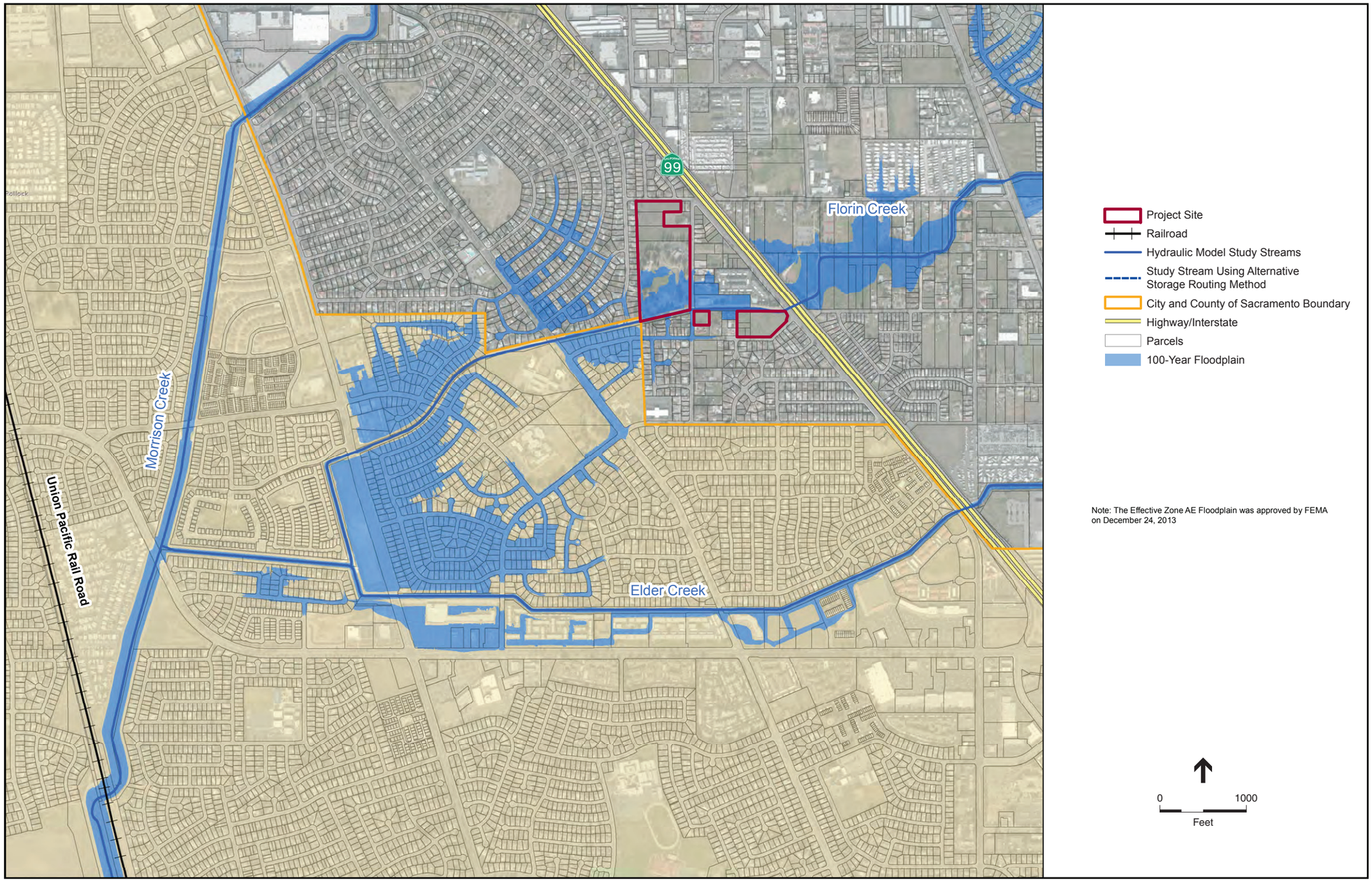
to flood except in very rare (less frequent than about the 25-year recurrence interval) events.

g) **No Impact.** The Project would alleviate existing flooding in developed areas along Florin Creek. The Project would not result in the construction of new housing.

j) **Less than Significant.** The Project is located over 100 miles from the Pacific Ocean and would not be affected by tsunami. During 25-year flood events or greater, the proposed Project would result in water being confined within the multi-use basin. However, due to the relative amount of water that would be confined, the temporary nature of confinement, and the fact that significant amounts of water would be contained on rare occasions the risk of seiche would be low. Mudflow can occur as a result of volcanic activity, or from large exposed areas of highly erosive soils. These conditions do not occur within the Project area, and mudflows are not anticipated. Further, the Project would not result in an increase in population or habitable structures.

References

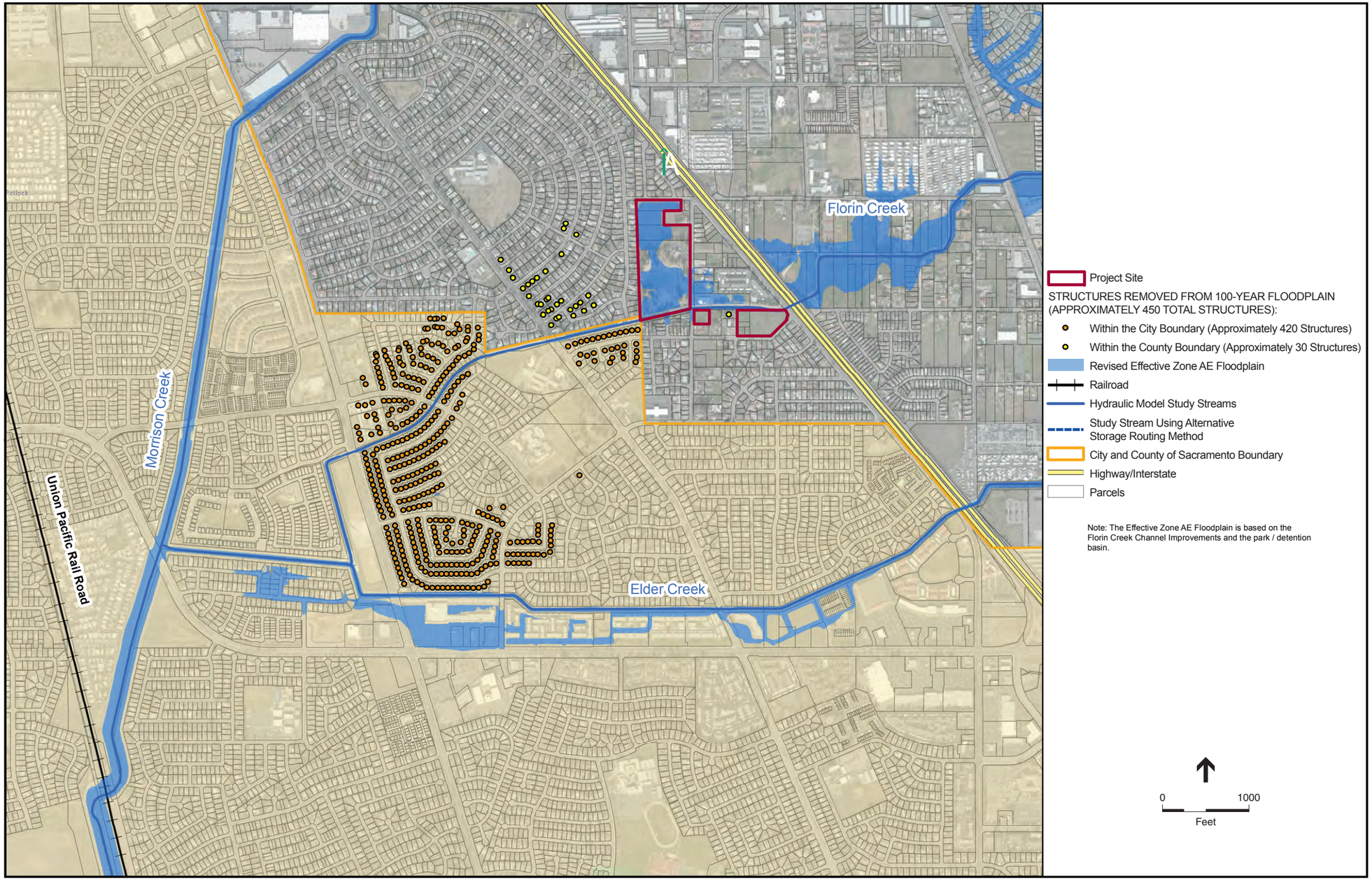
California Department of Water Resources (DWR), 2004. California's Groundwater Bulletin 118: Sacramento Valley Groundwater Basin, South American Subbasin. Available at: http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/5-21.65.pdf Accessed on February 14, 2014.



SOURCE: Wood Rodgers, 2014; ESA, 2014

Figure 2-3

Existing FEMA 100-Year Floodplain Downstream of the Project Site



SOURCE: Wood Rodgers, 2014; ESA, 2014

Figure 2-4

100-Year Floodplain with Proposed Project and Federal Project

2.10 Land Use and Land Use Planning

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

Environmental Setting

The Proposed Project is located within unincorporated Sacramento County and is designated in the General Plan as Low Density Residential and zoning for the Project site is Residential and Recreation.

Sacramento County General Plan

The Sacramento County General Plan sets policy for land uses in the unincorporated county for the next 25 years, establishing the foundation for future land use and development. The Land Use Element designates the distribution of land uses, such as residential, commercial, industrial, agricultural, open space, recreation and public uses. It also addresses the permitted density and intensity of the various land use designations as reflected on the County's General Plan Land Use Diagram.

Discussion

a) **No Impact.** The Proposed Project would be located at the existing Florin Creek Park and adjacent undeveloped parcels. Therefore the proposed Project would not result in a disruption, physical division, or isolation of existing residential or open space areas.

b) **No Impact.** The Proposed Project would include the construction of multi-use basins at the existing Florin Creek Park and adjacent undeveloped parcels to the north and would expand the park to the north. Parks are an allowable use in all residential zoning districts in the County. The Project would not result in changes that could conflict with applicable planning documents. In addition, the Project would be a part of and consistent with the ARB IRWMP. Therefore, the Project is considered to be consistent with the County General Plan and the ARB IRWMP. As a result, the Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project area.

c) **No Impact.** The Project area is not located within the planning area of an approved Habitat Conservation Plan. Although Sacramento County is developing a South Sacramento Habitat Conservation, the Plan has not yet been approved. Therefore, the Project would not interfere with any Habitat Conservation Plan or Natural Community Conservation Plan.

References

Sacramento County, 2011. General Plan of 2005-2030. November, 2011.

2.11 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
11. MINERAL RESOURCES — Would the Project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Setting

The Sacramento County General Plan Conservation Element and Open Space Element provide general guidance on how and where mining should occur in the County regulations under the authorization and direction of the Surface Mining and Reclamation Act (SMARA). The extraction of mineral resources in Sacramento County primarily includes sand, gravel, and natural gas but also includes clay and top soil(Sacramento County, 2011). According to the Sacramento County General Plan, there are no active mines or sources of mineral extraction in the vicinity of the Project area (Sacramento County, 2011).

Discussion

a,b) **No Impact.** As identified in the Sacramento County General Plan, there are no active or planned mines or sources of mineral extraction in the vicinity of the Project area (Sacramento County, 2011), and the Project area is not located within a Mineral Recovery Zone, as defined by the State Mining and Geology Board. Therefore, implementation of the Project would not result in the loss of availability of a known mineral resource and would not result in the loss of availability of a locally-important mineral resource recovery site.

References

Sacramento County, 2011. General Plan of 2005-2030. November, 2011.

2.12 Noise

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
12.	**NOISE — Would the Project:**				
a)	Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c)	Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	Result in 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, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☒	☐
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

Sound is mechanical energy transmitted by pressure waves through a medium such as air, while noise is defined as unwanted sound. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hertz[3] (Hz) and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).[4]

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

[3] Hertz is a unit of frequency equivalent to one cycle per second

[4] All noise levels reported herein reflect A-weighted decibels unless otherwise stated.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants generally experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- In carefully controlled laboratory experiments, a change of 1-dBA cannot be perceived;
- outside of the laboratory, a 3-dBA change is considered a just-perceivable difference when the change in noise is perceived but does not cause a human response;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is non-linear, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary "point" sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 dBA to 7.5 dBA per doubling of distance from the source, depending upon environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility spread over many acres or a street with moving vehicles (a "line" source), would typically attenuate at a lower rate, approximately 3 to 4.5 dBA per doubling distance from the source (also dependent upon environmental conditions) (Caltrans, 1998). Noise from large construction sites would have characteristics of both "point" and "line" sources, so attenuation would generally range between 4.5 and 7.5 dBA per doubling of distance.

Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is most frequently used to describe

the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration (FTA, 2006). Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration.

Sensitive Receptors

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication; physiological and psychological stress; and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive. Sensitive receptor land uses in the Project vicinity include residences, with the nearest (along Circle Parkway) approximately 25 feet from construction activities.

Sacramento County Municipal Code

The Sacramento County Municipal Code Title 6 (Health and Sanitation) Chapter 6.68 (Noise Control) includes exterior noise standards, as well as specific exemptions to those standards. For residential land uses, exterior standards are 55 dBA (from 7 a.m. to 10 p.m.) and 50 dBA (from 10 p.m. to 7 a.m.). Exemptions that would apply to the Project include:

- Activities conducted on parks, public playgrounds and school ground, provided such parks, playgrounds and school grounds are owned and operated by a public entity or private school (County Code 6.68.090, exemption "c"). This exemption would apply to operations of the Project.

- Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities do not take place between the hours of eight p.m. and six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after eight p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner (County Code 6.68.090, exemption "e"). This exemption could apply to Project construction, if construction activities were limited to the appropriate hours.

Discussion

a,d) **Less-than-Significant with Mitigation.** Equipment noise during construction of the Proposed Project is the primary concern in evaluating short-term noise impacts. During operation, noise from the Project would be associated with park uses and would be similar in

nature to existing operations. Although the expansion of the park under the Project would result in increased visitation and would likely result in a noticeable increase in noise, especially during field use for sports, Project operations would be exempt from the County Code noise standards pursuant to exemption "c" described above.

Temporary impacts during construction would be considered significant if they would occur outside the hours specified in exemption "d" of the County Code described above. As shown in **Table 2-3** below, noise levels could be as high as 89 dBA at 50 feet from excavation activities, which would equate to about 95 dBA at 25 feet at the nearest residences and would exceed both the daytime (55 dBA) and nighttime (50 dBA) noise standards specified in the County Code for residential land uses, resulting in a potentially significant impact during construction. However, implementation of **Mitigation Measures NOI-1** and **NOI-2** would require construction contractors to adhere to daytime hours and implement best management practice noise reduction measures, and would also provide a framework for responding to and tracking complaints pertaining to construction noise. Implementation of these measures would reduce the temporary construction noise impact to a less-than-significant level.

TABLE 2-3
TYPICAL CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA, L_{eq})[a]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

a Average noise levels correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase of construction and 200 feet from the rest of the equipment associated with that phase.

SOURCE: U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, 1971.

Mitigation Measure NOI-1: SAFCA shall ensure that construction contractors implement the following measures to reduce noise impacts due to construction:

- Prohibit construction activities between the hours of eight p.m. and six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. These hours correlate to the County Code exemption for construction noise.
- Construction equipment noise shall be minimized during Project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools; and

- Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as feasible from nearby sensitive receptors.

Mitigation Measure NOI-2: The applicant shall implement the following measures to respond to and track complaints pertaining to construction noise:

- Residents fronting the proposed construction site shall be noticed by mail at least 2 weeks prior to the commencement of construction activity in their area.
- The designation of a construction complaint manager for the Proposed Project; and
- A listing of telephone numbers to reach the construction complaint manager for the Proposed Project (during regular construction hours and off-hours).

b) **Less-than-Significant with Mitigation.** As shown in **Table 2-4**, use of heavy equipment (e.g., a large bulldozer) generates vibration levels up to 0.089 in/sec PPV or 87 VdB RMS at a distance of 25 feet. Pile driving would not be used as part of this project. The nearest sensitive receptors would be located about 25 feet from Project construction. Vibration levels at these receptors would not exceed the potential building damage threshold of 0.2 PPV. However, vibration levels could exceed the annoyance threshold of 80 RMS. Implementation of **Mitigation Measures NOI-1** and **NOI-2** above would reduce potential annoyance to a less than significant level.

TABLE 2-4
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 ft (inches/second)[a]	RMS at 25 ft (Vdb)[b]
Large bulldozer	0.089	87
Loaded trucks	0.076	86

[a] Fragile buildings can be exposed to ground-borne vibration levels of 0.2 PPV (in/sec) without experiencing damage.
[b] The human annoyance response level is 80 RMS

SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Mitigation: Implement Mitigation Measures NOI-1 and NOI-2.

c) **Less-than-Significant.** As discussed in Checklist Items 12a and 12d, although the expansion of the park under the Project would result in increased visitation and would likely result in a noticeable increase in noise, especially during field use for sports, Project operations would be exempt from the County Code noise standards pursuant to exemption "c" described above.

e,f) **Less-than-Significant.** The Project is located more than two miles from the Sacramento Executive Airport and there are no private air strips within a two mile radius. This impact would be less than significant.

References

Caltrans, Technical Noise Supplement, 1998.

Federal Transit Administration, 2006. Transit Noise and Vibration Impact Assessment, May 2006.

U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, 1971.

2.13 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
13. POPULATION AND HOUSING — Would the Project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Environmental Setting

The Sacramento County Housing Element of 2013-2021 is an update to the Sacramento County General Plan and describes the residential development and housing needs strategies during the 2013-2021 planning period. These assumptions are used by the County to anticipate future growth and to appropriately plan for the provision of public services to County residents. Based on average build out densities for new residential land uses, the Sacramento County Housing Element of 2013-2021 accommodated 13,844 new housing units by 2021. The population was projected to increase from 554,554 in 2010 to 579,850 in 2020, an increase of approximately 4.6 percent.

Discussion

a) **Less-than-Significant.** The Proposed Project would increase protection for existing residences and other structures from the 100-year flood event. The area that would be protected is built out and the Project would not result in the construction of new housing, business, or industrial developments that could drive population growth. Construction of the Project could result in temporary job creation. However, due to the small scale and limited duration of the construction period, population growth associated with the new construction jobs is not anticipated. Operation and maintenance functions would be done by existing staff supported by Southgate Recreation and Park District and the County. Therefore, construction, operation, and maintenance would not result in any substantial increase in numbers of permanent workers/employees.

b) **No Impact.** Construction activities associated with the Proposed Project would occur within the existing Florin Creek Park and adjacent undeveloped parcels adjacent and to the north of the park. Therefore, construction and operation of the Project would not result in the displacement of existing housing.

c) **No Impact.** The Proposed Project would not result in the displacement of people or houses, such that construction of new housing would be required. There is no existing

housing located on the Project site, and no persons would be displaced as a result of Project implementation.

References

Sacramento County, 2013. Sacramento County Housing Element of 2013-2021. October 8, 2013.

2.14 Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
14. PUBLIC SERVICES — Would the Project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i) Fire protection?	☐	☐	☐	☒
ii) Police protection?	☐	☐	☐	☒
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

Environmental Setting

Fire service is provided in the unincorporated areas of the County of Sacramento by eleven fire districts. The Project is within the Sacramento Metropolitan Fire District's service area. The Sacramento County Sheriff's Department provides specialized law enforcement services and local police protection to unincorporated areas of Sacramento County. (Sacramento County, 2010). Two school districts serve the Project area; the Sacramento City Unified School District and the Elk Grove Unified School District. The Southgate Recreation and Park District operates 47 parks within South Sacramento County. (Southgate Recreation and Park District, 2014).

Discussion

a) **No Impact.** As described above under Population and Housing, the Proposed Project would not result in direct or indirect population growth that would require development of new governmental facilities. The Project would result in temporary construction jobs that would not result in an increase in demand for local services beyond current demands. Although the Project would temporarily displace park users at Florin Creek Park during construction and establishment of new turf (see next section), the Project would result in the creation of more park space per capita resulting in a net benefit in public services for recreation in the area. Therefore, the Proposed Project would not generate additional demand for public services.

References

Sacramento County, 2010.Sacramento County General Plan Update Final Environmental Impact Report http://www.per.saccounty.net/EnvironmentalDocuments/Pages/SearchDocuments.aspx. Accessed February 14, 2014.

Southgate Recreation and Park District, 2014. District Map. http://www.southgaterecandpark.net/images/stories/pdfs/district_map.pdf. Accessed February 13, 2014.

2.15 Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
15. RECREATION — Would the Project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Setting

As described in the Project description, the Project site includes the existing Florin Creek Park. The park is currently 14.24 acres in size and includes a community center, playgrounds, picnic area, outdoor amphitheater, soccer field, petanque court (similar to a bocce court), and nature area. The Florin Creek Trail is a paved bicycle and pedestrian trail that extends for 1.3 miles east of Florin Creek Park. Current recreational use within Florin Creek Park are limited to the one soccer/multi-use field, walkways, a petanque court, nature areas, and a permanent pond.

Discussion

a,b) **Less-than-Significant.** The Proposed Project would result in the construction and operation of a multi-use basin composed of two detention basins whose primary objective would be flood control, but would also include an increase in acreage of recreational fields. With the increase of approximately 4.84 acres to the existing Florin Creek Park, the Project would result in one large and two small soccer fields for youth players. Also, the Project would reconstruct the permanent pond and construct a new pond with wetland and riparian features that would offer viewing opportunities, nature interpretation panels, and more trails. The Project would result in a benefit to the community by providing more park space available to serve the area's residents.

Construction of the Proposed Project would temporarily limit access to Florin Creek Park. However, interference with use of the park would be temporary and limited to approximately two months for construction and one month for sod maturity for use of the fields. Access to walkways through the park would be provided before sod maturity. Access would be restored following completion of construction activities, and therefore would not result in a significant impact. The Project would not result in changes in population within the affected communities and would not result in increased demand for recreation or increased use of existing recreational facilities. Specific Project impacts (e.g., air quality, noise, etc.) related to construction of the detention basins and recreational improvements are discussed in the individual checklist items for the specific resources affected.

2.16 Transportation and Traffic

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

Environmental Setting

The Project site vicinity consists primarily of local residential roadways. Construction access to the Project site would be through direct entry at the park property along Persimmon Avenue and direct entry to the staging areas from Persimmon and Pomegranate Avenue. State Route (SR) 99 is the one major freeway that serves the Project site. Haul trucks and construction vehicles from outside the south Sacramento area would access the Project area using SR 99. Major arterials that would connect vehicles to the Project site from the freeways include Florin Road (Rd.), Mack Rd., Franklin Boulevard (Blvd.), and Center Parkway (Pkwy.). The average daily trips (ADT) for these roadways are shown in **Table 2-5**, below.

The 2011 Sacramento City/County Bikeway Master Plan was adopted in 1995, and has been updated in 2001, 2004, and 2011. Based on the Bikeway Master Plan, all of the major roadways, except SR 99 connecting the Project area are designated as Class II (on-street) bikeways, and from SR 99 along Persimmon Avenue to Pomegranate Avenue is a Class I bike trail along the right bank of Florin Creek. Additionally, with the exception of Persimmon Avenue and Pomegranate Avenue, all of the roadways are designated pedestrian routes and all of the roadways have sidewalks for pedestrian access.

TABLE 2-5
AVERAGE DAILY TRIPS FOR MAJOR ROADWAYS IN THE PROJECT AREA

Roadway	Limits (direction)	ADT	A.M. Peak	P.M. Peak	Count Year
Florin Rd.	Franklin Blvd. (South (S) Bound (B))	13,656	802	1,333	2003
Franklin Blvd.	Florin Rd. (SB)	10,241	690	1,134	2011
Franklin Blvd.	Florin Rd. (North Bound (North (N)B)	13,751	1,169	967	2011
Franklin Blvd.	Brookfield Drive (Dr.)(SB)	11,111	632	1,153	2008
Franklin Blvd.	Brookfield Dr. (NB)	10,187	1,045	731	2008
Franklin Blvd.	East Pkwy./G Pkwy. (NB/SB)	27,021	1,718	2,148	1995
Mack Rd.	Center Pkwy. (East (E) B)	15,097	931	1,196	2011
Mack Rd.	Center Pkwy. (West (W) B)	14,872	1,002	1,183	2011
Central Pkwy.	Mack Rd. (SB)	4,636	320	468	2011
Central Pkwy.	Mack Rd. (NB)	6,300	717	550	2011

SOURCE: City of Sacramento, 2014.

Public transportation in Sacramento is provided by the Sacramento Regional Transit District (RT), which includes bus and light rail services. Five bus routes run within the Project haul routes: the 47, 54, 56, 65, and 81 routes. These routes provide bus riders with access to the nearby Cosumnes River College, Florin High School, and Florin Mall, as well as to Sacramento via the RT Blue Line.

Discussion

a,b,e,f) **Less-than-Significant with Mitigation**. Construction activities would intermittently and temporarily generate increases in vehicle trips by construction workers and construction vehicles on area roadways. Because most construction activities would occur within the Project Site, construction activities would not result in a significant reduction in the number of, or the available width of, travel lanes on local roads except during times of transportation of equipment and materials along local and major roadways to and from the construction site and staging areas. The Project would result in highest number of employees and truck trips durin ghte excavation process to remove approximately 44,000 cy of soil off the project site. During this approximately three week time period, approximately 30 to 35 employees and approximately 245 haul truck trips per day would occur. Other phases of construction would have significantly fewer truck trips from delivery of cement, aggregate, asphalt, and pipes. The Project construction would result in an increase in ADT levels along the local roadways listed in Table 2-5 of less than five percent and an increase of peak period trips of less than seven percent. The Project could result in some traffic delays for vehicles traveling past construction zones, including local bus routes or access routes to the RT Blue Line.

The Proposed Project would include the preparation of a Traffic Control Plan (TCP) in advance of any construction mobilization or activity that would include such measures as coordination with CalTrans, the City of Sacramento, the County of Sacramento, and

Sacramento RT on routing haul trucks and other construction traffic to and from the Project site to reduce potential delays along roadways. The TCP would include measures that would reduce construction vehicles and equipment from increasing traffic congestion, prevent blocking roads, provide passage to pedestrians and bicyclists (especially during school commute periods), and prevent potential risks for traffic accidents on roads around the Project site. Further, employee parking would be limited to the park site or on the staging areas.

Operation of the Project would include traffic related to park activities. The Park District would continue to limit the use of the fields to the local Parkway Soccer Club for scheduled practice and games. Because the Project would increase the number of available soccer fields, the soccer club would no longer be required to schedule in succession on the current single field all day Saturday. Rather, the soccer club would have shorter game days because multiple games could be scheduled at the same time. Practice days could also be reduced for this same reason. Because of this flexibility to use multiple fields at the same time, traffic activities related to the soccer club use of the additional field space would result in a decrease in the timing of arrivals and departures on practice and game days to be less frequent than under current conditions. Because the park would not be used by other soccer clubs, there would not be an increase in the number of vehicle trips associated with the soccer club activities. Further, as discussed in Checklist Item 2.15 Recreation, the Project would not result in a significant increase in park visitors, other than those expected to use the additional field when the soccer club is not using the field. Therefore, the Project would not result in a substantial increase in traffic from Project operations and impacts would be less than significant.

c) **No Impact.** The Proposed Project would not involve aircraft, nor would the Project result in structures that would intrude into aircraft flight paths or air traffic spaces. Therefore, the Project would have no impact on air traffic patterns that results in substantial safety risks.

d) **Less-than-Significant with Mitigation.** Project construction activities would not result in new design features on roads in the area. Further, the Project would not result in in potential traffic safety hazards for vehicles, bicyclists and pedestrians on public roadways due to the intermittent and temporary construction activities. Construction activities would not result in new or more severe increase in the wear-and-tear on the designated haul routes used by construction vehicles to access the Project work sites than the Approved Project. Nonetheless, the potential for damage on local roadways still exists and would require the implementation of the following mitigation measure.

> **Mitigation Measure TRAF-1:** Prior to construction activities, a pre-project survey of Project roadways shall be done by the construction contractor in coordination with the City or County to determine existing roadway conditions.
>
> **Mitigation Measure TRAF-2:** A post-project survey of Project roadways shall be done by the construction **contractor** in coordination with the City or County

to determine if any damage has occurred from construction activities. If so, the contractor shall be responsible for repairing the damage to the satisfaction of the City or County.

References

City of Sacramento, Department of Public Works, Transportation Division, Traffic Count Database Website, http://www.cityofsacramento.org/transportation/traffic/list.cfm?x=1. Accessed on February 24, 2014.

2.17 Utilities and Service Systems

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
17.	**UTILITIES AND SERVICE SYSTEMS — Would the Project:**				
a)	Conflict with 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 would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Environmental Setting

Water Facilities

The California American Water Company (CalAm) provides water within the Project area. Water to meet urban and non-urban demands primarily comes from surface water sources or local groundwater aquifers (Sacramento County, 2011). The Sacramento County Water Agency (SCWA) manages and regulates Sacramento County water resources. Both groundwater and surface water supplies are critical for the area. Groundwater levels in the Project site ranges from 17 to 24 feet below the ground surface (Wood Rodgers, 2014). The American and Sacramento Rivers are the primary source of surface water in the County and are delivered from the City of Sacramento. For additional discussion of groundwater, please refer to Environmental Checklist Item 2.9.

Surface Water

CalAm purchases surface water supplies from the City of Sacramento (Sacramento County, 2011). These surface water supplies are treated by conventional treatment technologies: coagulation, sedimentation and filtration (using sand and anthracite filters), lime addition for corrosion control, fluoridation to promote dental health, and chlorination for disinfection (CalAm, 2011). The *2010 Sacramento District Urban Water Management Plan* (UWMP) identifies the current and planned water needs for the CalAm Northern Division Sacramento District. The UWMP

serves as a long-range planning document for water supply; a source document for cities and counties as they prepare their General Plans; and a key component to IRWMPs (California American Water Company, 2011).

American River Basin Integrated Regional Water Management Plan

The 2013 ARB IRWMP addresses local water management issues for the communities within the American River Basin on a regional perspective. The goal of the IRWMP is to present the most current understanding of major water resources-related management issues of the ARB Region and to document the vision, goals, objectives, and strategies to help address these issues. (Regional Water Authority, 2013).

Wastewater Collection and Treatment

The Sacramento Regional County Sanitation District (SRCSD) serves over 1.2 million residents in the urban area. Sanitary sewer service and wastewater treatment in the Project area is provided by the Sacramento Regional WWTP and associated infrastructure. The Sacramento Regional WWTP, located in Freeport, is permitted to treat an average dry weather flow of 181 million gallons per day (mgd) and a daily peak wet weather flow of 392 mgd. Large interceptors conveying wastewater from preexisting trunks and collection points in the urban area are also maintained by SRCSD. SRCSD is responsible for constructing new interceptors as the need requires (Sacramento County, 2011).

Stormwater

The County's storm drain system conveys stormwater runoff from developed areas to local waterways to prevent flooding. This system includes publicly-owned storm drain inlets, and a network of underground pipes and manholes, open channels, and roadside ditches. The County's storm drain system also includes publicly-owned streets, sidewalks and gutters. Stormwater flows in the Project area discharge to the County's storm drain system and eventually discharged into Florin Creek. Stormwater runoff from the park flows overland via sheet flow into nearby storm drain inlets and ultimately into Florin Creek.

Solid Waste Disposal

Sacramento County Department of Waste Management and Recycling (SCDWMR) provides waste collection services for Sacramento County. Services include curbside trash pickup and recycling to bulky item pick up. The nearest SCDWMR facility to the Project area is the Kiefer Landfill located at 12701 Kiefer Boulevard and Grant Line Road Sloughhouse CA, 95683. The landfill has a permitted capacity of 117,400,000 cubic yard with only 1.03-percent of the capacity used as of September, 2005. The estimated closure date of the landfill is 2064 (CalRecycle, 2014).

Discussion

a) **No Impact.** The Project would not generate any wastewater during construction or operation, and therefore would not interfere with or conflict with any applicable CVRWQCB requirements for wastewater treatment.

b,e) **No Impact.** The Project would not require or result in the construction of new water or wastewater treatment facilities, because the Project would not require additional water supplies in excess of the planned Southgate Park and Recreation District water requirements, would not generate a substantial increase of wastewater, and would not result in the construction of a major housing development or other action that could drive increases in demand for water or wastewater treatment facilities.

c) **No Impact.** No new off-site stormwater drainage facilities or expansion of existing facilities are expected to be necessary resulting from the project improvements.

d) **Less-than-Significant.** The Project would require minimal water supply during construction activities. Water supply required during construction activities would be provided by a water truck and would be sourced from local municipal supply. Water demand would be temporary and minor and therefore potential impacts associated with availability of water supplies would be less than significant. The operation of the proposed Project would result in increased irrigation water demand but would not require CalAm to obtain any new surface water supplies.

f,g) **Less-than-Significant.** Construction of the Proposed Project would involve site preparation and grading that may generate waste materials, including grubbed vegetation, concrete from broken up walkways, and other nonhazardous materials, that could be recycled and/or disposed of in a landfill. Other waste materials related to construction of the Proposed Project would not be generated in substantial amounts. Proposed Project operations would generate trash waste streams consistent with existing operations. Construction and operation waste would be disposed of at the Kiefer Landfill. The Kiefer Landfill has a future operation life of approximately 50 years with an expected closure date of 2064. Capacity within the landfill is therefore sufficient to meet project waste disposal needs, and no significant impact to landfill capacity is anticipated.

Project construction activities would excavate approximately 49,700 cy of soils during the entire construction period. As described in Section 1.4, Construction Process and Schedule, approximately 11,300 cy of excavated soil from the Project site would be loaded into trucks and hauled approximately 900 feet to private parcels southeast of the Project site to raise the parcels above the 100-year flood zone. The soil would be spread, compacted, watered, and landscaped. Approximately 5,700 cy would be reused within the Project site in the park. The remaining 32,700 cy of excavated soil would be hauled off-site by the contractor to a landfill within 20 miles (e.g., Kiefer landfill), other off-site use, or a local permitted dump within 20 miles of the Project site as stipulated in the contractor's contract with SAFCA.Implementation of the Proposed Project would not substantially reduce the capacity/life of the Kiefer Landfill.

References

CalAm, 2011. Sacramento District 2010 Urban Water Management Plan. October, 2011.1

Regional Water Authority, 2013. American River Basin Integrated Regional Water Management Plans 2013 Update. July, 2013

Cal Recycle. 2014. Facility/Site Summary Details. Accessed at: http://www.calrecycle.ca.gov/SWFacilities/Directory/34-AA-0001/Detail/ on February 12, 2014.

2.18 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would 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 a rare or endangered plant or animal, 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 would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) **Less-than-Significant with Mitigation.** As discussed the Air Quality, Biological Resources, Cultural Resources, Noise, and Transportation and Traffic sections of this Initial Study/Mitigated Negative Declaration (IS/MND), the Project would result in potentially significant temporary impacts as a result of construction of the Proposed Project that would have the potential to degrade the quality of the environment. However, adoption and implementation of mitigation measures described in this IS/MND would reduce these individual impacts to less than significant levels.

b) **Less-than-Significant with Mitigation.** Cumulative environmental effects are multiple individual effects that, when considered together are considerable or compound or increase other environmental impacts. The individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time. Cumulative projects identified that are ongoing at present or anticipated in the reasonably foreseeable future include construction of the South Sacramento County Streams Group Project (Federal Project).

The Proposed Project would not cause long-term impacts on the resources in the Environmental Checklist Sections. However, some of the resources have the potential to incur temporary, short-term impacts during construction. An initial assessment of potential cumulative impacts indicates that air quality, biological resources, climate change, and traffic and circulation impacts have the potential to contribute to significant cumulative impacts. However, implementation of mitigation measures presented in Environmental

Checklist Sections 2.3 (Air Quality), 2.4 (Biological Resources), 2.7 (Greenhouse Gas Emissions), 2.12 (Noise), 2.16 (Transportation and Traffic) would reduce the Project's contribution to environmental impacts to less than cumulatively considerable. Therefore, cumulative impacts would be less than significant.

Additionally, the Federal Project identified within this analysis has already undergone separate environmental review, or is currently in the process of undergoing environmental review. These separate environmental reviews have or are anticipated to address the specific environmental impacts associated with the actions and growth proposed therein. Implementation of the mitigation measures proposed in this environmental document would reduce the Project's impacts to less than significant. Further, they would reduce the Proposed Project's contribution to environmental impacts to less than cumulatively considerable.

c) **Less-than-Significant with Mitigation.** The Project would include measures that would reduce the potential for accidental release of hazardous materials stored in the Project construction area that could enter nearby waterways, adjacent lands, or public roadways. Temporary impacts through degradation of local air quality could occur during construction. However, with implementation of mitigation measures provided in the Checklist Section 2.3 (Air Quality), these temporary impacts would be less than significant.

APPENDIX A

Air Quality Modeling Calculations Details

Florin Creek Park Basin Construction

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	16.50	Acre	16.50	718,740.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2015
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project site = 16.5 acres; Disturbed project site = 13.2 acres; Disturbed spoils sites = 6.6 acres

Construction Phase - Construction phases and durations based on input from Wood Rodgers

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Trips and VMT - Haul Trucks from Wood Rodgers input, assuming 12 CY per truck

Demolition - Negligble utility demo off haul

Grading - Matched disturbed area and soil export in Wood Rodgers Memo.

Vehicle Trips - Modeling Construction Only

Consumer Products - Modeling Construction Only

Area Coating - Modeling Construction Only

Landscape Equipment - Modeling Construction Only

Water And Wastewater - Modeling Construction Only

Solid Waste - Modeling Construction Only

Construction Off-road Equipment Mitigation - Per SMAQMD Basic Control Measures

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	359370	0
tblAreaCoating	Area_Nonresidential_Interior	1078110	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	15.00

tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	PhaseEndDate	9/26/2014	10/1/2014
tblConstructionPhase	PhaseEndDate	10/20/2014	10/6/2014
tblConstructionPhase	PhaseEndDate	9/12/2014	9/5/2014
tblConstructionPhase	PhaseEndDate	10/20/2014	10/29/2014
tblConstructionPhase	PhaseEndDate	11/3/2014	10/31/2014
tblConstructionPhase	PhaseStartDate	9/6/2014	9/11/2014
tblConstructionPhase	PhaseStartDate	10/16/2014	10/2/2014
tblConstructionPhase	PhaseStartDate	9/11/2014	9/4/2014
tblConstructionPhase	PhaseStartDate	10/7/2014	10/16/2014
tblConstructionPhase	PhaseStartDate	10/30/2014	10/29/2014
tblGrading	AcresOfGrading	56.25	19.80
tblGrading	AcresOfGrading	7.50	13.20
tblGrading	AcresOfGrading	5.00	6.60
tblGrading	MaterialExported	0.00	44,000.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		Hydroseeding, Demobilization, Clean Up
tblOffRoadEquipment	PhaseName		Site Excavation, Fill, and Spoil Off Haul
tblOffRoadEquipment	PhaseName		Stripping, Clearing, Grubbing
tblOffRoadEquipment	PhaseName		Spoil Site Preparation
tblOffRoadEquipment	PhaseName		Site Demolition and Utility Removal
tblOffRoadEquipment	PhaseName		Utility Reconstruction
tblOffRoadEquipment	PhaseName		Roadway Construction
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblSolidWaste	SolidWasteGenerationRate	1.42	0.00
tblTripsAndVMT	HaulingTripNumber	30.00	0.00
tblTripsAndVMT	HaulingTripNumber	5,500.00	7,334.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblWater	OutdoorWaterUseRate	19,659,442.27	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.2354	2.4723	2.3014	3.6800e-003	0.0921	0.0840	0.1761	0.0212	0.0773	0.0985	0.0000	343.7741	343.7741	0.0269	0.0000	344.3400
Total	**0.2354**	**2.4723**	**2.3014**	**3.6800e-003**	**0.0921**	**0.0840**	**0.1761**	**0.0212**	**0.0773**	**0.0985**	**0.0000**	**343.7741**	**343.7741**	**0.0269**	**0.0000**	**344.3400**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.2354	2.4723	2.3014	3.6800e-003	0.0781	0.0840	0.1621	0.0196	0.0773	0.0968	0.0000	343.7740	343.7740	0.0269	0.0000	344.3399
Total	**0.2354**	**2.4723**	**2.3014**	**3.6800e-003**	**0.0781**	**0.0840**	**0.1621**	**0.0196**	**0.0773**	**0.0968**	**0.0000**	**343.7740**	**343.7740**	**0.0269**	**0.0000**	**344.3399**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.25**	**0.00**	**7.98**	**7.64**	**0.00**	**1.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8070**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8070**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Stripping, Clearing, Grubbing	Site Preparation	9/1/2014	9/3/2014	5	3	
2	Site Demolition and Utility Removal	Demolition	9/4/2014	9/10/2014	5	5	
3	Spoil Site Preparation	Site Preparation	9/4/2014	9/5/2014	5	2	
4	Site Excavation, Fill, and Spoil Off Haul	Grading	9/11/2014	10/1/2014	5	15	
5	Utility Reconstruction	Trenching	10/2/2014	10/15/2014	5	10	
6	Roadway Construction	Paving	10/2/2014	10/6/2014	5	3	
7	Site Reconstruction	Site Preparation	10/16/2014	10/29/2014	5	10	
8	Hydroseeding, Demobilization, Clean Up	Site Preparation	10/29/2014	10/31/2014	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Stripping, Clearing, Grubbing	Scrapers	2	10.00	361	0.48
Stripping, Clearing, Grubbing	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Site Demolition and Utility Removal	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Spoil Site Preparation	Scrapers	2	10.00	361	0.48
Site Excavation, Fill, and Spoil Off Haul	Excavators	2	10.00	162	0.38
Site Excavation, Fill, and Spoil Off Haul	Graders	2	10.00	174	0.41
Site Excavation, Fill, and Spoil Off Haul	Rollers	2	10.00	80	0.38
Site Excavation, Fill, and Spoil Off Haul	Scrapers	2	10.00	361	0.48
Utility Reconstruction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Roadway Construction	Tractors/Loaders/Backhoes	4	10.00	80	0.38
Site Reconstruction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Hydroseeding, Demobilization, Clean Up	Off-Highway Trucks	1	10.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Stripping, Clearing, Grubbing	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Demolition and Utility Removal	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Spoil Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Excavation, Fill, and Spoil Off Haul	8	20.00	0.00	7,334.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Utility Reconstruction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Roadway Construction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Reconstruction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Hydroseeding, Demobilization, Clean	1	3.00	0.00	8.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Stripping, Clearing, Grubbing - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.0000e-003	0.0000	7.0000e-003	7.6000e-004	0.0000	7.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8700e-003	0.0847	0.0538	7.0000e-005		3.9200e-003	3.9200e-003		3.6100e-003	3.6100e-003	0.0000	6.5052	6.5052	1.9200e-003	0.0000	6.5455
Total	**6.8700e-003**	**0.0847**	**0.0538**	**7.0000e-005**	**7.0000e-003**	**3.9200e-003**	**0.0109**	**7.6000e-004**	**3.6100e-003**	**4.3700e-003**	**0.0000**	**6.5052**	**6.5052**	**1.9200e-003**	**0.0000**	**6.5455**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1058	0.1058	1.0000e-005	0.0000	0.1059
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1058**	**0.1058**	**1.0000e-005**	**0.0000**	**0.1059**

3.2 Stripping, Clearing, Grubbing - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.1500e-003	0.0000	3.1500e-003	3.4000e-004	0.0000	3.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8700e-003	0.0847	0.0538	7.0000e-005		3.9200e-003	3.9200e-003		3.6100e-003	3.6100e-003	0.0000	6.5052	6.5052	1.9200e-003	0.0000	6.5455
Total	**6.8700e-003**	**0.0847**	**0.0538**	**7.0000e-005**	**3.1500e-003**	**3.9200e-003**	**7.0700e-003**	**3.4000e-004**	**3.6100e-003**	**3.9500e-003**	**0.0000**	**6.5052**	**6.5052**	**1.9200e-003**	**0.0000**	**6.5455**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1058	0.1058	1.0000e-005	0.0000	0.1059
Total	**6.0000e-005**	**8.0000e-005**	**7.9000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1058**	**0.1058**	**1.0000e-005**	**0.0000**	**0.1059**

3.3 Site Demolition and Utility Removal - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6100e-003	0.0442	0.0303	4.0000e-005		3.4700e-003	3.4700e-003		3.1900e-003	3.1900e-003	0.0000	3.7542	3.7542	1.1100e-003	0.0000	3.7775
Total	**4.6100e-003**	**0.0442**	**0.0303**	**4.0000e-005**	**0.0000**	**3.4700e-003**	**3.4700e-003**	**0.0000**	**3.1900e-003**	**3.1900e-003**	**0.0000**	**3.7542**	**3.7542**	**1.1100e-003**	**0.0000**	**3.7775**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.3000e-004	1.3200e-003	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1763	0.1763	1.0000e-005	0.0000	0.1766
Total	**1.1000e-004**	**1.3000e-004**	**1.3200e-003**	**0.0000**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1763**	**0.1763**	**1.0000e-005**	**0.0000**	**0.1766**

3.3 Site Demolition and Utility Removal - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6100e-003	0.0442	0.0303	4.0000e-005		3.4700e-003	3.4700e-003		3.1900e-003	3.1900e-003	0.0000	3.7542	3.7542	1.1100e-003	0.0000	3.7775
Total	**4.6100e-003**	**0.0442**	**0.0303**	**4.0000e-005**	**0.0000**	**3.4700e-003**	**3.4700e-003**	**0.0000**	**3.1900e-003**	**3.1900e-003**	**0.0000**	**3.7542**	**3.7542**	**1.1100e-003**	**0.0000**	**3.7775**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	1.3000e-004	1.3200e-003	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1763	0.1763	1.0000e-005	0.0000	0.1766
Total	**1.1000e-004**	**1.3000e-004**	**1.3200e-003**	**0.0000**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1763**	**0.1763**	**1.0000e-005**	**0.0000**	**0.1766**

3.4 Spoil Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.5000e-003	0.0000	3.5000e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6600e-003	0.0476	0.0298	4.0000e-005		1.9200e-003	1.9200e-003		1.7700e-003	1.7700e-003	0.0000	3.5859	3.5859	1.0600e-003	0.0000	3.6082
Total	**3.6600e-003**	**0.0476**	**0.0298**	**4.0000e-005**	**3.5000e-003**	**1.9200e-003**	**5.4200e-003**	**3.8000e-004**	**1.7700e-003**	**2.1500e-003**	**0.0000**	**3.5859**	**3.5859**	**1.0600e-003**	**0.0000**	**3.6082**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0353	0.0353	0.0000	0.0000	0.0353
Total	**2.0000e-005**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0353**	**0.0353**	**0.0000**	**0.0000**	**0.0353**

3.4 Spoil Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.5700e-003	0.0000	1.5700e-003	1.7000e-004	0.0000	1.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6600e-003	0.0476	0.0298	4.0000e-005		1.9200e-003	1.9200e-003		1.7700e-003	1.7700e-003	0.0000	3.5859	3.5859	1.0600e-003	0.0000	3.6082
Total	**3.6600e-003**	**0.0476**	**0.0298**	**4.0000e-005**	**1.5700e-003**	**1.9200e-003**	**3.4900e-003**	**1.7000e-004**	**1.7700e-003**	**1.9400e-003**	**0.0000**	**3.5859**	**3.5859**	**1.0600e-003**	**0.0000**	**3.6082**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	2.6000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0353	0.0353	0.0000	0.0000	0.0353
Total	**2.0000e-005**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0353**	**0.0353**	**0.0000**	**0.0000**	**0.0353**

3.5 Site Excavation, Fill, and Spoil Off Haul - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0151	0.0000	0.0151	1.8200e-003	0.0000	1.8200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0623	0.7215	0.4191	5.4000e-004		0.0354	0.0354		0.0325	0.0325	0.0000	52.4687	52.4687	0.0155	0.0000	52.7944
Total	**0.0623**	**0.7215**	**0.4191**	**5.4000e-004**	**0.0151**	**0.0354**	**0.0504**	**1.8200e-003**	**0.0325**	**0.0344**	**0.0000**	**52.4687**	**52.4687**	**0.0155**	**0.0000**	**52.7944**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1303	1.3183	1.5502	2.6700e-003	0.0617	0.0227	0.0844	0.0169	0.0209	0.0378	0.0000	247.9058	247.9058	2.1200e-003	0.0000	247.9504
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	7.6000e-004	7.9500e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0580	1.0580	6.0000e-005	0.0000	1.0594
Total	**0.1310**	**1.3191**	**1.5581**	**2.6800e-003**	**0.0628**	**0.0227**	**0.0855**	**0.0172**	**0.0209**	**0.0381**	**0.0000**	**248.9638**	**248.9638**	**2.1800e-003**	**0.0000**	**249.0098**

3.5 Site Excavation, Fill, and Spoil Off Haul - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.7700e-003	0.0000	6.7700e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0623	0.7215	0.4191	5.4000e-004		0.0354	0.0354		0.0325	0.0325	0.0000	52.4687	52.4687	0.0155	0.0000	52.7943
Total	**0.0623**	**0.7215**	**0.4191**	**5.4000e-004**	**6.7700e-003**	**0.0354**	**0.0421**	**8.2000e-004**	**0.0325**	**0.0334**	**0.0000**	**52.4687**	**52.4687**	**0.0155**	**0.0000**	**52.7943**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.1303	1.3183	1.5502	2.6700e-003	0.0617	0.0227	0.0844	0.0169	0.0209	0.0378	0.0000	247.9058	247.9058	2.1200e-003	0.0000	247.9504
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.3000e-004	7.6000e-004	7.9500e-003	1.0000e-005	1.1000e-003	1.0000e-005	1.1100e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0580	1.0580	6.0000e-005	0.0000	1.0594
Total	**0.1310**	**1.3191**	**1.5581**	**2.6800e-003**	**0.0628**	**0.0227**	**0.0855**	**0.0172**	**0.0209**	**0.0381**	**0.0000**	**248.9638**	**248.9638**	**2.1800e-003**	**0.0000**	**249.0098**

3.6 Utility Reconstruction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2100e-003	0.0883	0.0606	8.0000e-005		6.9400e-003	6.9400e-003		6.3800e-003	6.3800e-003	0.0000	7.5084	7.5084	2.2200e-003	0.0000	7.5550
Total	**9.2100e-003**	**0.0883**	**0.0606**	**8.0000e-005**		**6.9400e-003**	**6.9400e-003**		**6.3800e-003**	**6.3800e-003**	**0.0000**	**7.5084**	**7.5084**	**2.2200e-003**	**0.0000**	**7.5550**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.5000e-004	2.6500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3527	0.3527	2.0000e-005	0.0000	0.3531
Total	**1.9900e-003**	**0.0182**	**0.0238**	**4.0000e-005**	**1.2100e-003**	**3.1000e-004**	**1.5200e-003**	**3.3000e-004**	**2.8000e-004**	**6.2000e-004**	**0.0000**	**3.7329**	**3.7329**	**5.0000e-005**	**0.0000**	**3.7340**

3.6 Utility Reconstruction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2100e-003	0.0883	0.0606	8.0000e-005		6.9400e-003	6.9400e-003		6.3800e-003	6.3800e-003	0.0000	7.5084	7.5084	2.2200e-003	0.0000	7.5550
Total	**9.2100e-003**	**0.0883**	**0.0606**	**8.0000e-005**		**6.9400e-003**	**6.9400e-003**		**6.3800e-003**	**6.3800e-003**	**0.0000**	**7.5084**	**7.5084**	**2.2200e-003**	**0.0000**	**7.5550**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.5000e-004	2.6500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3527	0.3527	2.0000e-005	0.0000	0.3531
Total	**1.9900e-003**	**0.0182**	**0.0238**	**4.0000e-005**	**1.2100e-003**	**3.1000e-004**	**1.5200e-003**	**3.3000e-004**	**2.8000e-004**	**6.2000e-004**	**0.0000**	**3.7329**	**3.7329**	**5.0000e-005**	**0.0000**	**3.7340**

3.7 Roadway Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3400e-003	0.0224	0.0154	2.0000e-005		1.7600e-003	1.7600e-003		1.6200e-003	1.6200e-003	0.0000	1.9080	1.9080	5.6000e-004	0.0000	1.9198
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0224**	**0.0154**	**2.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**1.9080**	**1.9080**	**5.6000e-004**	**0.0000**	**1.9198**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1058	0.1058	1.0000e-005	0.0000	0.1059
Total	**1.8400e-003**	**0.0181**	**0.0219**	**4.0000e-005**	**9.5000e-004**	**3.1000e-004**	**1.2600e-003**	**2.6000e-004**	**2.8000e-004**	**5.5000e-004**	**0.0000**	**3.4860**	**3.4860**	**4.0000e-005**	**0.0000**	**3.4868**

3.7 Roadway Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3400e-003	0.0224	0.0154	2.0000e-005		1.7600e-003	1.7600e-003		1.6200e-003	1.6200e-003	0.0000	1.9080	1.9080	5.6000e-004	0.0000	1.9198
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.3400e-003**	**0.0224**	**0.0154**	**2.0000e-005**		**1.7600e-003**	**1.7600e-003**		**1.6200e-003**	**1.6200e-003**	**0.0000**	**1.9080**	**1.9080**	**5.6000e-004**	**0.0000**	**1.9198**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	7.9000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1058	0.1058	1.0000e-005	0.0000	0.1059
Total	**1.8400e-003**	**0.0181**	**0.0219**	**4.0000e-005**	**9.5000e-004**	**3.1000e-004**	**1.2600e-003**	**2.6000e-004**	**2.8000e-004**	**5.5000e-004**	**0.0000**	**3.4860**	**3.4860**	**4.0000e-005**	**0.0000**	**3.4868**

3.8 Site Reconstruction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2100e-003	0.0883	0.0606	8.0000e-005		6.9400e-003	6.9400e-003		6.3800e-003	6.3800e-003	0.0000	7.5084	7.5084	2.2200e-003	0.0000	7.5550
Total	**9.2100e-003**	**0.0883**	**0.0606**	**8.0000e-005**	**0.0000**	**6.9400e-003**	**6.9400e-003**	**0.0000**	**6.3800e-003**	**6.3800e-003**	**0.0000**	**7.5084**	**7.5084**	**2.2200e-003**	**0.0000**	**7.5550**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.5000e-004	2.6500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3527	0.3527	2.0000e-005	0.0000	0.3531
Total	**1.9900e-003**	**0.0182**	**0.0238**	**4.0000e-005**	**1.2100e-003**	**3.1000e-004**	**1.5200e-003**	**3.3000e-004**	**2.8000e-004**	**6.2000e-004**	**0.0000**	**3.7329**	**3.7329**	**5.0000e-005**	**0.0000**	**3.7340**

3.8 Site Reconstruction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2100e-003	0.0883	0.0606	8.0000e-005		6.9400e-003	6.9400e-003		6.3800e-003	6.3800e-003	0.0000	7.5084	7.5084	2.2200e-003	0.0000	7.5550
Total	**9.2100e-003**	**0.0883**	**0.0606**	**8.0000e-005**	**0.0000**	**6.9400e-003**	**6.9400e-003**	**0.0000**	**6.3800e-003**	**6.3800e-003**	**0.0000**	**7.5084**	**7.5084**	**2.2200e-003**	**0.0000**	**7.5550**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7800e-003	0.0180	0.0211	4.0000e-005	8.4000e-004	3.1000e-004	1.1500e-003	2.3000e-004	2.8000e-004	5.2000e-004	0.0000	3.3802	3.3802	3.0000e-005	0.0000	3.3808
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	2.5000e-004	2.6500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3527	0.3527	2.0000e-005	0.0000	0.3531
Total	**1.9900e-003**	**0.0182**	**0.0238**	**4.0000e-005**	**1.2100e-003**	**3.1000e-004**	**1.5200e-003**	**3.3000e-004**	**2.8000e-004**	**6.2000e-004**	**0.0000**	**3.7329**	**3.7329**	**5.0000e-005**	**0.0000**	**3.7340**

3.9 Hydroseeding, Demobilization, Clean Up - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.4400e-003	1.6900e-003	0.0000	7.0000e-005	2.0000e-005	9.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2704	0.2704	0.0000	0.0000	0.2705
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0317	0.0317	0.0000	0.0000	0.0318
Total	**1.6000e-004**	**1.4600e-003**	**1.9300e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**3.0000e-005**	**2.0000e-005**	**5.0000e-005**	**0.0000**	**0.3022**	**0.3022**	**0.0000**	**0.0000**	**0.3023**

3.9 Hydroseeding, Demobilization, Clean Up - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-004	1.4400e-003	1.6900e-003	0.0000	7.0000e-005	2.0000e-005	9.0000e-005	2.0000e-005	2.0000e-005	4.0000e-005	0.0000	0.2704	0.2704	0.0000	0.0000	0.2705
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0317	0.0317	0.0000	0.0000	0.0318
Total	**1.6000e-004**	**1.4600e-003**	**1.9300e-003**	**0.0000**	**1.0000e-004**	**2.0000e-005**	**1.2000e-004**	**3.0000e-005**	**2.0000e-005**	**5.0000e-005**	**0.0000**	**0.3022**	**0.3022**	**0.0000**	**0.0000**	**0.3023**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504472	0.068177	0.177914	0.148798	0.045219	0.006392	0.019958	0.015471	0.002301	0.002330	0.006201	0.000579	0.002187

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8070**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8070					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.8070**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Vegetation

Florin Creek Park Basin Construction

Sacramento County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Hydroseeding, Demobilization, Clean Up	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roadway Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Demolition and Utility Removal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Excavation, Fill, and Spoil Off Haul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Reconstruction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Spoil Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stripping, Clearing, Grubbing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utility Reconstruction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Excavators	Diesel	No Change	0	2	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Off-Highway Trucks	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Scrapers	Diesel	No Change	0	6	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	18	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Excavators	7.94000E-003	9.48100E-002	6.42200E-002	1.00000E-004	4.66000E-003	4.29000E-003	0.00000E+000	9.54623E+000	9.54623E+000	2.82000E-003	0.00000E+000	9.60547E+000
Graders	1.99800E-002	2.05300E-001	9.32100E-002	1.20000E-004	1.15200E-002	1.06000E-002	0.00000E+000	1.12967E+001	1.12967E+001	3.34000E-003	0.00000E+000	1.13668E+001
Rollers	6.99000E-003	6.42400E-002	3.82900E-002	5.00000E-005	4.78000E-003	4.40000E-003	0.00000E+000	4.73133E+000	4.73133E+000	1.40000E-003	0.00000E+000	4.76070E+000
Scrapers	3.65800E-002	4.76220E-001	2.97840E-001	3.70000E-004	1.92100E-002	1.76700E-002	0.00000E+000	3.58593E+001	3.58593E+001	1.06000E-002	0.00000E+000	3.60818E+001
Tractors/Loaders/ Backhoes	2.67500E-002	2.56480E-001	1.75890E-001	2.30000E-004	2.01500E-002	1.85400E-002	0.00000E+000	2.18053E+001	2.18053E+001	6.44000E-003	0.00000E+000	2.19406E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Excavators	7.94000E-003	9.48000E-002	6.42200E-002	1.00000E-004	4.66000E-003	4.29000E-003	0.00000E+000	9.54622E+000	9.54622E+000	2.82000E-003	0.00000E+000	9.60546E+000
Graders	1.99800E-002	2.05300E-001	9.32100E-002	1.20000E-004	1.15200E-002	1.06000E-002	0.00000E+000	1.12967E+001	1.12967E+001	3.34000E-003	0.00000E+000	1.13668E+001
Rollers	6.99000E-003	6.42400E-002	3.82900E-002	5.00000E-005	4.78000E-003	4.40000E-003	0.00000E+000	4.73133E+000	4.73133E+000	1.40000E-003	0.00000E+000	4.76069E+000
Scrapers	3.65800E-002	4.76220E-001	2.97840E-001	3.70000E-004	1.92100E-002	1.76700E-002	0.00000E+000	3.58593E+001	3.58593E+001	1.06000E-002	0.00000E+000	3.60818E+001
Tractors/Loaders/Backhoes	2.67500E-002	2.56480E-001	1.75890E-001	2.30000E-004	2.01500E-002	1.85400E-002	0.00000E+000	2.18053E+001	2.18053E+001	6.44000E-003	0.00000E+000	2.19406E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Excavators	0.00000E+000	1.05474E-004	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.04753E-006	1.04753E-006	0.00000E+000	0.00000E+000	1.04107E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.77043E-006	1.77043E-006	0.00000E+000	0.00000E+000	8.79755E-007
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.10053E-006
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11547E-006	1.11547E-006	0.00000E+000	0.00000E+000	1.10859E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.17208E-007	9.17208E-007	0.00000E+000	0.00000E+000	1.36733E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		
Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	9.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Hydroseeding, Demobilization, Clean Up	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Hydroseeding, Demobilization, Clean Up	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Roadway Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Roadway Construction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Demolition and Utility Removal	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Demolition and Utility Removal	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Excavation, Fill, and Spoil Off Haul	Fugitive Dust	0.02	0.00	0.01	0.00	0.55	0.55
Site Excavation, Fill, and Spoil Off Haul	Roads	0.06	0.02	0.06	0.02	0.00	0.00
Site Reconstruction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Site Reconstruction	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Spoil Site Preparation	Fugitive Dust	0.00	0.00	0.00	0.00	0.55	0.55
Spoil Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Stripping, Clearing, Grubbing	Fugitive Dust	0.01	0.00	0.00	0.00	0.55	0.55
Stripping, Clearing, Grubbing	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Utility Reconstruction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Utility Reconstruction	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	150.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Florin Creek Park Basin Construction

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	16.50	Acre	16.50	718,740.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2015
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total project site = 16.5 acres; Disturbed project site = 13.2 acres; Disturbed spoils sites = 6.6 acres

Construction Phase - Construction phases and durations based on input from Wood Rodgers

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Off-road Equipment - Equipment list provided by Wood-Rodgers. Assumes 10 hour shifts.

Trips and VMT - Haul Trucks from Wood Rodgers input, assuming 12 CY per truck

Demolition - Negligble utility demo off haul

Grading - Matched disturbed area and soil export in Wood Rodgers Memo.

Vehicle Trips - Modeling Construction Only

Consumer Products - Modeling Construction Only

Area Coating - Modeling Construction Only

Landscape Equipment - Modeling Construction Only

Water And Wastewater - Modeling Construction Only

Solid Waste - Modeling Construction Only

Construction Off-road Equipment Mitigation - Per SMAQMD Basic Control Measures

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	359370	0
tblAreaCoating	Area_Nonresidential_Interior	1078110	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	30.00	15.00

tblConstructionPhase	NumDays	20.00	3.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	NumDays	10.00	2.00
tblConstructionPhase	NumDays	10.00	3.00
tblConstructionPhase	PhaseEndDate	9/26/2014	10/1/2014
tblConstructionPhase	PhaseEndDate	10/20/2014	10/6/2014
tblConstructionPhase	PhaseEndDate	9/12/2014	9/5/2014
tblConstructionPhase	PhaseEndDate	10/20/2014	10/29/2014
tblConstructionPhase	PhaseEndDate	11/3/2014	10/31/2014
tblConstructionPhase	PhaseStartDate	9/6/2014	9/11/2014
tblConstructionPhase	PhaseStartDate	10/16/2014	10/2/2014
tblConstructionPhase	PhaseStartDate	9/11/2014	9/4/2014
tblConstructionPhase	PhaseStartDate	10/7/2014	10/16/2014
tblConstructionPhase	PhaseStartDate	10/30/2014	10/29/2014
tblGrading	AcresOfGrading	56.25	19.80
tblGrading	AcresOfGrading	7.50	13.20
tblGrading	AcresOfGrading	5.00	6.60
tblGrading	MaterialExported	0.00	44,000.00
tblOffRoadEquipment	HorsePower	400.00	97.00
tblOffRoadEquipment	HorsePower	97.00	80.00
tblOffRoadEquipment	LoadFactor	0.38	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		Hydroseeding, Demobilization, Clean Up
tblOffRoadEquipment	PhaseName		Site Excavation, Fill, and Spoil Off Haul
tblOffRoadEquipment	PhaseName		Stripping, Clearing, Grubbing
tblOffRoadEquipment	PhaseName		Spoil Site Preparation
tblOffRoadEquipment	PhaseName		Site Demolition and Utility Removal
tblOffRoadEquipment	PhaseName		Utility Reconstruction
tblOffRoadEquipment	PhaseName		Roadway Construction
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblOffRoadEquipment	UsageHours	8.00	10.00
tblProjectCharacteristics	OperationalYear	2014	2015
tblSolidWaste	SolidWasteGenerationRate	1.42	0.00
tblTripsAndVMT	HaulingTripNumber	30.00	0.00
tblTripsAndVMT	HaulingTripNumber	5,500.00	7,334.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblWater	OutdoorWaterUseRate	19,659,442.27	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	28.5766	275.8767	294.7705	0.4308	10.6368	7.7504	18.3872	2.6029	7.1274	9.7302	0.0000	44,247.5678	44,247.5678	2.6024	0.0000	44,302.2182
Total	**28.5766**	**275.8767**	**294.7705**	**0.4308**	**10.6368**	**7.7504**	**18.3872**	**2.6029**	**7.1274**	**9.7302**	**0.0000**	**44,247.5678**	**44,247.5678**	**2.6024**	**0.0000**	**44,302.2182**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	28.5766	275.8767	294.7705	0.4308	9.5333	7.7504	17.2836	2.4692	7.1274	9.5966	0.0000	44,247.5678	44,247.5678	2.6024	0.0000	44,302.2182
Total	**28.5766**	**275.8767**	**294.7705**	**0.4308**	**9.5333**	**7.7504**	**17.2836**	**2.4692**	**7.1274**	**9.5966**	**0.0000**	**44,247.5678**	**44,247.5678**	**2.6024**	**0.0000**	**44,302.2182**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**10.37**	**0.00**	**6.00**	**5.14**	**0.00**	**1.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.3812	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**15.3812**	**2.0000e-005**	**1.7400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**3.6100e-003**	**3.6100e-003**	**1.0000e-005**	**0.0000**	**3.8300e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.3812	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**15.3812**	**2.0000e-005**	**1.7400e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**3.6100e-003**	**3.6100e-003**	**1.0000e-005**	**0.0000**	**3.8300e-003**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Stripping, Clearing, Grubbing	Site Preparation	9/1/2014	9/3/2014	5	3	
2	Site Demolition and Utility Removal	Demolition	9/4/2014	9/10/2014	5	5	
3	Spoil Site Preparation	Site Preparation	9/4/2014	9/5/2014	5	2	
4	Site Excavation, Fill, and Spoil Off Haul	Grading	9/11/2014	10/1/2014	5	15	
5	Utility Reconstruction	Trenching	10/2/2014	10/15/2014	5	10	
6	Roadway Construction	Paving	10/2/2014	10/6/2014	5	3	
7	Site Reconstruction	Site Preparation	10/16/2014	10/29/2014	5	10	
8	Hydroseeding, Demobilization, Clean Up	Site Preparation	10/29/2014	10/31/2014	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Stripping, Clearing, Grubbing	Scrapers	2	10.00	361	0.48
Stripping, Clearing, Grubbing	Tractors/Loaders/Backhoes	2	10.00	97	0.37
Site Demolition and Utility Removal	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Spoil Site Preparation	Scrapers	2	10.00	361	0.48
Site Excavation, Fill, and Spoil Off Haul	Excavators	2	10.00	162	0.38
Site Excavation, Fill, and Spoil Off Haul	Graders	2	10.00	174	0.41
Site Excavation, Fill, and Spoil Off Haul	Rollers	2	10.00	80	0.38
Site Excavation, Fill, and Spoil Off Haul	Scrapers	2	10.00	361	0.48
Utility Reconstruction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Roadway Construction	Tractors/Loaders/Backhoes	4	10.00	80	0.38
Site Reconstruction	Tractors/Loaders/Backhoes	4	10.00	97	0.37
Hydroseeding, Demobilization, Clean Up	Off-Highway Trucks	1	10.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Stripping, Clearing, Grubbing	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Demolition and Utility Removal	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Spoil Site Preparation	2	5.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Excavation, Fill, and Spoil Off Haul	8	20.00	0.00	7,334.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Utility Reconstruction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Roadway Construction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Reconstruction	4	10.00	0.00	100.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Hydroseeding, Demobilization, Clean	1	3.00	0.00	8.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Stripping, Clearing, Grubbing - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.6662	0.0000	4.6662	0.5038	0.0000	0.5038			0.0000			0.0000
Off-Road	4.5790	56.4537	35.8404	0.0451		2.6147	2.6147		2.4055	2.4055		4,780.4749	4,780.4749	1.4127		4,810.1412
Total	**4.5790**	**56.4537**	**35.8404**	**0.0451**	**4.6662**	**2.6147**	**7.2809**	**0.5038**	**2.4055**	**2.9094**		**4,780.4749**	**4,780.4749**	**1.4127**		**4,810.1412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.0444**	**0.0566**	**0.5538**	**8.5000e-004**	**0.0761**	**6.3000e-004**	**0.0767**	**0.0202**	**5.8000e-004**	**0.0208**		**75.5398**	**75.5398**	**4.7100e-003**		**75.6387**

3.2 Stripping, Clearing, Grubbing - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0998	0.0000	2.0998	0.2267	0.0000	0.2267			0.0000			0.0000
Off-Road	4.5790	56.4537	35.8404	0.0451		2.6147	2.6147		2.4055	2.4055	0.0000	4,780.4749	4,780.4749	1.4127		4,810.1412
Total	**4.5790**	**56.4537**	**35.8404**	**0.0451**	**2.0998**	**2.6147**	**4.7145**	**0.2267**	**2.4055**	**2.6323**	**0.0000**	**4,780.4749**	**4,780.4749**	**1.4127**		**4,810.1412**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.0444**	**0.0566**	**0.5538**	**8.5000e-004**	**0.0761**	**6.3000e-004**	**0.0767**	**0.0202**	**5.8000e-004**	**0.0208**		**75.5398**	**75.5398**	**4.7100e-003**		**75.6387**

3.3 Site Demolition and Utility Removal - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765		1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**	**0.0000**	**1.3875**	**1.3875**	**0.0000**	**1.2765**	**1.2765**		**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.0444**	**0.0566**	**0.5538**	**8.5000e-004**	**0.0761**	**6.3000e-004**	**0.0767**	**0.0202**	**5.8000e-004**	**0.0208**		**75.5398**	**75.5398**	**4.7100e-003**		**75.6387**

3.3 Site Demolition and Utility Removal - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765	0.0000	1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**	**0.0000**	**1.3875**	**1.3875**	**0.0000**	**1.2765**	**1.2765**	**0.0000**	**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.0444**	**0.0566**	**0.5538**	**8.5000e-004**	**0.0761**	**6.3000e-004**	**0.0767**	**0.0202**	**5.8000e-004**	**0.0208**		**75.5398**	**75.5398**	**4.7100e-003**		**75.6387**

3.4 Spoil Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4997	0.0000	3.4997	0.3779	0.0000	0.3779			0.0000			0.0000
Off-Road	3.6577	47.6222	29.7839	0.0373		1.9209	1.9209		1.7673	1.7673		3,952.8122	3,952.8122	1.1681		3,977.3423
Total	**3.6577**	**47.6222**	**29.7839**	**0.0373**	**3.4997**	**1.9209**	**5.4206**	**0.3779**	**1.7673**	**2.1451**		**3,952.8122**	**3,952.8122**	**1.1681**		**3,977.3423**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0222	0.0283	0.2769	4.3000e-004	0.0380	3.2000e-004	0.0384	0.0101	2.9000e-004	0.0104		37.7699	37.7699	2.3500e-003		37.8193
Total	**0.0222**	**0.0283**	**0.2769**	**4.3000e-004**	**0.0380**	**3.2000e-004**	**0.0384**	**0.0101**	**2.9000e-004**	**0.0104**		**37.7699**	**37.7699**	**2.3500e-003**		**37.8193**

3.4 Spoil Site Preparation - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5748	0.0000	1.5748	0.1701	0.0000	0.1701			0.0000			0.0000
Off-Road	3.6577	47.6222	29.7839	0.0373		1.9209	1.9209		1.7673	1.7673	0.0000	3,952.8122	3,952.8122	1.1681		3,977.3423
Total	**3.6577**	**47.6222**	**29.7839**	**0.0373**	**1.5748**	**1.9209**	**3.4958**	**0.1701**	**1.7673**	**1.9373**	**0.0000**	**3,952.8122**	**3,952.8122**	**1.1681**		**3,977.3423**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0222	0.0283	0.2769	4.3000e-004	0.0380	3.2000e-004	0.0384	0.0101	2.9000e-004	0.0104		37.7699	37.7699	2.3500e-003		37.8193
Total	**0.0222**	**0.0283**	**0.2769**	**4.3000e-004**	**0.0380**	**3.2000e-004**	**0.0384**	**0.0101**	**2.9000e-004**	**0.0104**		**37.7699**	**37.7699**	**2.3500e-003**		**37.8193**

3.5 Site Excavation, Fill, and Spoil Off Haul - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0065	0.0000	2.0065	0.2430	0.0000	0.2430			0.0000			0.0000
Off-Road	8.3119	96.2014	55.8793	0.0727		4.7164	4.7164		4.3390	4.3390		7,711.5853	7,711.5853	2.2789		7,759.4413
Total	**8.3119**	**96.2014**	**55.8793**	**0.0727**	**2.0065**	**4.7164**	**6.7228**	**0.2430**	**4.3390**	**4.5821**		**7,711.5853**	**7,711.5853**	**2.2789**		**7,759.4413**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	20.1759	179.5621	237.7837	0.3564	8.4782	3.0328	11.5110	2.3195	2.7872	5.1066		36,384.9030	36,384.9030	0.3141		36,391.4995
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0889	0.1133	1.1075	1.7100e-003	0.1521	1.2600e-003	0.1534	0.0404	1.1500e-003	0.0415		151.0795	151.0795	9.4200e-003		151.2774
Total	**20.2647**	**179.6753**	**238.8912**	**0.3581**	**8.6304**	**3.0340**	**11.6644**	**2.3598**	**2.7883**	**5.1482**		**36,535.9825**	**36,535.9825**	**0.3235**		**36,542.7769**

3.5 Site Excavation, Fill, and Spoil Off Haul - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9029	0.0000	0.9029	0.1094	0.0000	0.1094			0.0000			0.0000
Off-Road	8.3119	96.2014	55.8793	0.0727		4.7164	4.7164		4.3390	4.3390	0.0000	7,711.5853	7,711.5853	2.2789		7,759.4413
Total	**8.3119**	**96.2014**	**55.8793**	**0.0727**	**0.9029**	**4.7164**	**5.6193**	**0.1094**	**4.3390**	**4.4484**	**0.0000**	**7,711.5853**	**7,711.5853**	**2.2789**		**7,759.4413**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	20.1759	179.5621	237.7837	0.3564	8.4782	3.0328	11.5110	2.3195	2.7872	5.1066		36,384.9030	36,384.9030	0.3141		36,391.4995
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0889	0.1133	1.1075	1.7100e-003	0.1521	1.2600e-003	0.1534	0.0404	1.1500e-003	0.0415		151.0795	151.0795	9.4200e-003		151.2774
Total	**20.2647**	**179.6753**	**238.8912**	**0.3581**	**8.6304**	**3.0340**	**11.6644**	**2.3598**	**2.7883**	**5.1482**		**36,535.9825**	**36,535.9825**	**0.3235**		**36,542.7769**

3.6 Utility Reconstruction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765		1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**		**1.3875**	**1.3875**		**1.2765**	**1.2765**		**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4127	3.6725	4.8633	7.2900e-003	0.1734	0.0620	0.2354	0.0474	0.0570	0.1044		744.1690	744.1690	6.4200e-003		744.3039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.4571**	**3.7292**	**5.4171**	**8.1400e-003**	**0.2495**	**0.0627**	**0.3121**	**0.0676**	**0.0576**	**0.1252**		**819.7088**	**819.7088**	**0.0111**		**819.9426**

3.6 Utility Reconstruction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765	0.0000	1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**		**1.3875**	**1.3875**		**1.2765**	**1.2765**	**0.0000**	**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4127	3.6725	4.8633	7.2900e-003	0.1734	0.0620	0.2354	0.0474	0.0570	0.1044		744.1690	744.1690	6.4200e-003		744.3039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.4571**	**3.7292**	**5.4171**	**8.1400e-003**	**0.2495**	**0.0627**	**0.3121**	**0.0676**	**0.0576**	**0.1252**		**819.7088**	**819.7088**	**0.0111**		**819.9426**

3.7 Roadway Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5607	14.9612	10.2602	0.0132		1.1753	1.1753		1.0813	1.0813		1,402.1145	1,402.1145	0.4143		1,410.8156
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5607**	**14.9612**	**10.2602**	**0.0132**		**1.1753**	**1.1753**		**1.0813**	**1.0813**		**1,402.1145**	**1,402.1145**	**0.4143**		**1,410.8156**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3755	12.2418	16.2111	0.0243	0.5780	0.2068	0.7848	0.1581	0.1900	0.3482		2,480.5633	2,480.5633	0.0214		2,481.0131
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**1.4199**	**12.2984**	**16.7648**	**0.0252**	**0.6541**	**0.2074**	**0.8615**	**0.1783**	**0.1906**	**0.3689**		**2,556.1031**	**2,556.1031**	**0.0261**		**2,556.6517**

3.7 Roadway Construction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5607	14.9612	10.2602	0.0132		1.1753	1.1753		1.0813	1.0813	0.0000	1,402.1145	1,402.1145	0.4143		1,410.8156
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.5607**	**14.9612**	**10.2602**	**0.0132**		**1.1753**	**1.1753**		**1.0813**	**1.0813**	**0.0000**	**1,402.1145**	**1,402.1145**	**0.4143**		**1,410.8156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3755	12.2418	16.2111	0.0243	0.5780	0.2068	0.7848	0.1581	0.1900	0.3482		2,480.5633	2,480.5633	0.0214		2,481.0131
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**1.4199**	**12.2984**	**16.7648**	**0.0252**	**0.6541**	**0.2074**	**0.8615**	**0.1783**	**0.1906**	**0.3689**		**2,556.1031**	**2,556.1031**	**0.0261**		**2,556.6517**

3.8 Site Reconstruction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765		1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**	**0.0000**	**1.3875**	**1.3875**	**0.0000**	**1.2765**	**1.2765**		**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4127	3.6725	4.8633	7.2900e-003	0.1734	0.0620	0.2354	0.0474	0.0570	0.1044		744.1690	744.1690	6.4200e-003		744.3039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.4571**	**3.7292**	**5.4171**	**8.1400e-003**	**0.2495**	**0.0627**	**0.3121**	**0.0676**	**0.0576**	**0.1252**		**819.7088**	**819.7088**	**0.0111**		**819.9426**

3.8 Site Reconstruction - 2014

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.8425	17.6630	12.1131	0.0156		1.3875	1.3875		1.2765	1.2765	0.0000	1,655.3253	1,655.3253	0.4892		1,665.5978
Total	**1.8425**	**17.6630**	**12.1131**	**0.0156**	**0.0000**	**1.3875**	**1.3875**	**0.0000**	**1.2765**	**1.2765**	**0.0000**	**1,655.3253**	**1,655.3253**	**0.4892**		**1,665.5978**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4127	3.6725	4.8633	7.2900e-003	0.1734	0.0620	0.2354	0.0474	0.0570	0.1044		744.1690	744.1690	6.4200e-003		744.3039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0566	0.5538	8.5000e-004	0.0761	6.3000e-004	0.0767	0.0202	5.8000e-004	0.0208		75.5398	75.5398	4.7100e-003		75.6387
Total	**0.4571**	**3.7292**	**5.4171**	**8.1400e-003**	**0.2495**	**0.0627**	**0.3121**	**0.0676**	**0.0576**	**0.1252**		**819.7088**	**819.7088**	**0.0111**		**819.9426**

3.9 Hydroseeding, Demobilization, Clean Up - 2014

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1100	0.9793	1.2969	1.9400e-003	0.0462	0.0165	0.0628	0.0127	0.0152	0.0279		198.4451	198.4451	1.7100e-003		198.4810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0170	0.1661	2.6000e-004	0.0228	1.9000e-004	0.0230	6.0500e-003	1.7000e-004	6.2300e-003		22.6619	22.6619	1.4100e-003		22.6916
Total	**0.1234**	**0.9963**	**1.4630**	**2.2000e-003**	**0.0691**	**0.0167**	**0.0858**	**0.0187**	**0.0154**	**0.0341**		**221.1070**	**221.1070**	**3.1200e-003**		**221.1726**

3.9 Hydroseeding, Demobilization, Clean Up - 2014

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1100	0.9793	1.2969	1.9400e-003	0.0462	0.0165	0.0628	0.0127	0.0152	0.0279		198.4451	198.4451	1.7100e-003		198.4810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0133	0.0170	0.1661	2.6000e-004	0.0228	1.9000e-004	0.0230	6.0500e-003	1.7000e-004	6.2300e-003		22.6619	22.6619	1.4100e-003		22.6916
Total	**0.1234**	**0.9963**	**1.4630**	**2.2000e-003**	**0.0691**	**0.0167**	**0.0858**	**0.0187**	**0.0154**	**0.0341**		**221.1070**	**221.1070**	**3.1200e-003**		**221.1726**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504472	0.068177	0.177914	0.148798	0.045219	0.006392	0.019958	0.015471	0.002301	0.002330	0.006201	0.000579	0.002187

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.3812	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003
Unmitigated	15.3812	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	15.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003
Total	**15.3812**	**2.0000e-005**	**1.7400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.6100e-003**	**3.6100e-003**	**1.0000e-005**		**3.8300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	15.3810					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-004	2.0000e-005	1.7400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.6100e-003	3.6100e-003	1.0000e-005		3.8300e-003
Total	**15.3812**	**2.0000e-005**	**1.7400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.6100e-003**	**3.6100e-003**	**1.0000e-005**		**3.8300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX B
Special-Status Species List

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Invertebrates			
Branchinecta conservatio Conservancy fairy shrimp	FE/--/--	Found in ephemeral freshwater habitats including alkaline pools, clay flats, vernal pools, vernal lakes, vernal swales, and other types of seasonal wetlands.	Unlikely. No suitable habitat is present in the Project site.
Branchinecta lynchi Vernal pool fairy shrimp	FT/--/--	Occurs in vernal pools, seasonally ponded areas within vernal swales, rock outcrop ephemeral pools, playas and alkali flats from Shasta County through most of the length of the Central Valley to Tulare County. Pools are grass or mud bottomed, with clear to tea-colored water, and are often in basalt flow depression pools in grasslands	Unlikely. No suitable habitat is present in the Project site.
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/--/--	Breeds and forages exclusively on blue elderberry shrubs typically associated with riparian forests, riparian woodlands, elderberry savannas, and other Central Valley habitats. Occurs only in the Central Valley of California.	Unlikely. No suitable habitat is present in the Project site.
Elaphrus viridis Delta green ground beetle	FT/--/--	Associated with larger vernal pools or playa pools. Typically known to forage on the margins of the pools. Life is synchronized with habitat availability - generally emerges in Jan, breeds Feb-Mar, and enters dormancy in May.	Unlikely. Species distribution is generally restricted to the vernal pools in the grassland area within and immediately adjacent to Jepson Prairie (CDFW, 2014) approximately 26 miles southeast of the Project site.
Lepidurus packardi Vernal pool tadpole shrimp	FE/--/--	Found in ephemeral freshwater habitats including alkaline pools, clay flats, vernal pools, vernal lakes, vernal swales, and other types of seasonal wetlands.	Unlikely. No suitable habitat is present in the Project site.
Fish			
Acipenser medirostris Green sturgeon	FT/SSC/--	Spawns in the Klamath River and Sacramento River Watersheds. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Unlikely. No suitable habitat is present in the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Archoplites interruptus Sacramento perch	--/SSC/--	Sloughs, slow-moving rivers, and lakes of the Central Valley. Emergent vegetation necessary for nurseries.	Unlikely. No suitable habitat is present in the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Hypomesus transpacificus Delta smelt	FT/ST/--	Open surface waters in the Sacramento/San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Found in Delta estuaries with dense aquatic vegetation and low occurrence of predators.	Unlikely. Project site is located outside of critical habitat and upstream of migratory extent.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Oncorhynchus mykiss Central Valley steelhead	FT/--/--	This evolutionary significant unit (ESU) enters the Sacramento and San Joaquin Rivers and their tributaries from July to May; spawning from December to April. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays.	Unlikely. There is no perennial stream habitat within the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Oncorhynchus tshawytscha Central Valley spring-run Chinook	FT/ST/--	This ESU enters the Sacramento and San Joaquin Rivers and tributaries March to July; spawning from late August to early October. Young move to rearing areas in and through the Sacramento and San Joaquin Rivers, Delta, and San Pablo and San Francisco Bays.	Unlikely. There is no perennial stream habitat within the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Oncorhynchus tshawytscha Sacramento River winter-run Chinook	FE/SE/--	This ESU enters the Sacramento River December to May; spawning peaks May and June. Upstream movement occurs more quickly than in spring run population. Young move to rearing areas in and through the Sacramento River, Delta, and San Pablo and San Francisco.	Unlikely. There is no perennial stream habitat within the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Pogonichthys macrolepidotus Sacramento splittail	--/SSC/--	Found mostly in slow-moving marshy sections of rivers, sloughs, backwaters, lakes and rivers in the northern San Francisco Estuary and Central Valley of California. Require floodplains that stay flooded for several weeks for spawning. With the exception of spawning, largely confined to Delta, Suisun Bay, Suisun Marsh, and lower Napa River, lower Petaluma River and parts of the San Francisco Estuary.	Unlikely. No suitable habitat is present in the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Spirinchus thaleichthys Longfin smelt	FC/CT	Primary habitat is the open water of estuaries and lakes, where they can be found in both the seawater and freshwater areas, typically in the middle or deeper parts of the water column.	Unlikely. No suitable habitat is present in the Project site. Florin Creek is a trapezoidal ephemeral channel with a concrete bottom.
Amphibians			
Ambystoma californiense California tiger salamander, central population	FT/SSC/--	Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Needs underground refuges and vernal pools or other seasonal water sources.	Unlikely**.** There is no suitable upland or aquatic habitat within the Project site.
Rana draytonii California red-legged frog	FT/SSC/--	Breeds in slow moving streams, ponds, and marshes with emergent vegetation and an absence or low occurrence of predators.	Unlikely**.** There is no suitable upland or aquatic habitat within the Project site.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Reptiles			
Emys marmorata Western pond turtle	SSC	A thoroughly aquatic turtle; inhabits ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000 feet in elevation. Requires basking sites and suitable (sandy banks or grassy open fields) upland habitat within 0.3 miles of water for egg-laying.	Unlikely. Florin Creek is a trapezoidal ephemeral channel with steep banks with no suitable basking sites or upland habitat.
Thamnophis gigas Giant garter snake	FT/ST	Generally inhabits marshes, sloughs, ponds, slow-moving streams, ditches, and rice fields which have water from early spring through mid-fall; requires emergent vegetation (such as cattails and bulrushes), open areas for sunning, and high ground for hibernation and escape cover.	Unlikely. Florin Creek is a trapezoidal ephemeral channel with steep banks and no emergent vegetation or suitable upland habitat.
Birds			
Accipiter cooperii Cooper's hawk	--/SWL/--	Nests in riparian areas and oak woodlands, forages at woodland edges.	Low. While the mature trees could provide suitable nesting habitat, suitable foraging habitat is unavailable and the high level of human activity likely precludes the presence of this species.
Agelaius tricolor tricolored blackbird	--/SSC/--	Largely endemic to California, most numerous in the Central Valley and nearby vicinity. Typically requires open water and foraging grounds within vicinity of the nesting colony. Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water.	Low. Low quality wetland habitat is present within the Project site.
Aquila chrysaetos golden eagle	--/SFP/	Nests on cliffs of all heights and in large trees near open areas. Occurs in rolling foothills, mountain terrain, sage-juniper flats, and rugged open habitats with canyons and escarpments. Preys mostly on small mammals. Breeds late January through August.	Unlikely. There is no suitable habitat within the Project site.
Athene cunicularia burrowing owl	SSC	Forages in open plains, grasslands, and prairies; typically nests in abandoned small mammal burrows.	Unlikely. There is no suitable habitat within the Project site.
Buteo regalis ferruginous hawk	--/CWL/--	Preferred habitat consists of arid and semiarid grasslands with open, level, or rolling prairies; foothills or middle elevation plateaus largely devoid of trees; and cultivated shelterbelts or riparian corridors. Rock outcrops, shallow canyons, and gullies may characterize some habitats.	Unlikely. There is no suitable habitat within the Project site.
Buteo swainsoni Swainson's hawk	--/ST/--	Forages in open plains, grasslands, and prairies; typically nests in trees or large shrubs.	Low. While the mature trees could provide suitable nesting habitat, suitable foraging habitat is unavailable and the high level of human activity likely precludes the presence of this species.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Coccyzus americanus occidentalis western yellow-billed cuckoo	FC/SE/--	Found in willow-cottonwood riparian forests in isolated areas of the Sacramento Valley.	Unlikely. There is no suitable habitat within the Project site.
Elanus leucurus white-tailed kite	--/CFP/--	Forages in open plains, grasslands, and prairies; typically nests in trees.	Unlikely. There is no suitable habitat within the Project site.
Falco columbarius merlin	--/SWL/--	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Unlikely. There is no suitable habitat within the Project site.
Melospiza melodia song sparrow ("Modesto" population)	--/SSC/--	Resides only in the north-central portion of the Central Valley. Found in emergent freshwater marshes dominated by tules (*Scirpus* spp.) and cattails (*Typha* spp.) as well as riparian willow (*Salix* spp.) thickets. Song sparrows also nest in riparian forests of Valley Oak (*Quercus lobata*) with a sufficient understory of blackberry (*Rubus* spp.), along vegetated irrigation canals and levees, and in recently planted valley oak restoration sites.	Unlikely. There is no suitable habitat within the Project site.
Phalacrocorax auritus double-crested cormorant	--/SWL/--	Uses wide rock ledges on cliffs; rugged slopes; and live or dead trees. Feeds underwater on fish and crustaceans.	Unlikely. There is no suitable habitat within the Project site.
Progne subis **Purple martin**	**--/SSC/--**	**Found in deserts and often near water in California. Nests in abandoned woodpecker cavities and sometimes man-made houses west of the Rocky Mountains.**	**Medium. Suitable habitat is present within the large mature trees within Florin Creek Park; in addition nest boxes at the residences could provide suitable habitat for this species.**
Riparia riparia bank swallow	--/ST/--	Nests in steep banks next to moving water. Rarely occurs west of the Sierra Nevada in California.	Unlikely. There is no suitable habitat within the Project site.
Vireo bellii pusillus Least Bell's vireo	FE/SE/--	Found in dense, shrubby riparian and forest habitat, brushy fields, chaparral, scrub oak, and mesquite brushlands.	Unlikely. There is no suitable habitat within the Project site.
Xanthocephalus xanthocephalus yellow-headed blackbird	--/SSC/--	Nests in freshwater marshes or reedy lakes; during migration and winter prefers open cultivated lands, fields, and pastures near open water.	Low. Low quality wetland habitat is present within the Project site.
Mammals			
Taxidea taxus American badger	--/SSC/--	Occurs in a wide variety of open forest, shrub, and grassland habitats that have friable soils for digging.	Unlikely. There is no suitable habitat within the Project site.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Plants			
Astragalus tener var. *ferrisiae* Ferris's milk-vetch	--/--/1B.1	Annual herb occurring in vernally mesic meadow and seeps, and sub alkaline flats in valley and foothill grasslands at 15-250 feet in elevation. Blooms April-May	Unlikely. There is no suitable habitat within the Project site.
Brasenia schreberi watershield	--/--/2B.3	Perennial rhizomatous herb found in freshwater marshes and swamps at 98-7,218 feet in elevation. Blooms June-September.	Unlikely. Although low quality habitat occurs within the Project site, the closest known populations are within the Jepson Prairie region and the elevation of the Project site is outside the range of the species.
Carex comosa bristly sedge	--/--/2B.1	Perennial rhizomatous herb generally found in lake-margin and edge habitats at 0-625 feet in elevation. Blooms May-September.	Low. Low quality habitat is present within the Project site.
Cicuta maculata var. bolanderi Bolander's water-hemlock	--/--/2B.1	Perennial herb found in marshes and swamps; Coastal, fresh or brackish water at elevations of 0-5 feet. Blooms July-September.	Low. Low quality marsh habitat is present within the Project site.
Cuscuta obtusiflora var. glandulosa Peruvian dodder	--/--/2B.2	Annual parasitic vine found in freshwater marshes and swamps at elevations of 49-919 feet in elevation. Blooms July-October.	Low. Low quality marsh habitat is present within the Project site however elevation of Project site is outside range of species..
Downingia pusilla dwarf downingia	--/--/2B.2	Annual herb which prefers lake margins, vernal pools and wet places sometimes playas and grasslands at elevations of 3-1,460 feet. Blooms March-May.	Low. Low quality habitat is present within the Project site.
Gratiola heterosepal Boggs Lake hedge-hyssop	--/SE/1B.2	Annual herb found in marshes and swamps, lake margins, and in clay substrate in vernal pools at elevation ranges of 33-7,792 feet. Blooms Apr-Aug.	Unlikely. The only occurrences near the Project site, located near Dixon and Vacaville, were last recorded in 1910 and 1913, respectively, and are presumed to be extirpated (CDFW, 2014; CNPS, 2014). The closest known extant population is located approximately 30 miles from the Project site in the Putah Creek State Wildlife Area (CDFW, 2014).
Hibiscus lasiocarpus var. *occidentalis* wooly rose-mallow	--/--/1B.2	Perennial rhizomatous herb which prefers freshwater marshes and swamps at elevation ranges of 0-394 feet. Blooms June-September.	Low. Low quality marsh habitat is present within the Project site.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Juglans hindsii Northern California black walnut	--/--/1B.1	Perennial deciduous tree which occurs in riparian forest and woodland between 0-1,444 feet in elevation. Blooms April-May.	Unlikely. There are only three extant native stands of this species reported in CNDDB; much of what is called Northern California black walnut/Hinds' walnut are naturalized hybrids with black walnut (*J.nigra*). The closest known extant occurrence is located in Napa County.
Juncus leiospermus var. ahartii Ahart's dwarf rush	--/--/1B.2	Annual herb found in mesic valley and foothill grasslands between 98-751 feet. Blooms March-May.	Unlikely. There is no suitable habitat within the Project stie and the elevation at the Project site is outside the range of this species.
Lathyrus jepsonii var. *jepsonii* delta tule pea	--/--/1B.2	Perennial herb which occurs in both tidal freshwater and brackish marshes in the Central and San Joaquin Valleys and in the Bay Area between 0-15 feet in elevation. Blooms May-July (September).	Unlikely. There is no suitable habitat within the Project site.
Legenere limosa legenere	--/--/1B.1	Annual herb which occurs in vernal pool beds at elevations of 1-2,887 feet. Blooms April-June.	Unlikely. There is no suitable habitat within the Project site.
Lepidium latipes var. *heckardii* Heckard's pepper-grass	--/--/1B.2	Annual herb generally found in valley and foothill grasslands. Prefers wet places including vernal pools between 0-656 feet in elevation. Blooms March-May.	Low. Low quality habitat is present within the Project site.
Lilaeopsis masonii Mason's lilaeopsis	--/SR/1B.1	Perennial rhizomatous herb generally occurs in riparian scrub, freshwater-marsh and brackish-marsh habitats at 0-35 feet in elevation. Blooms April-November.	Low. Low quality habitat is present within the Project site.
Limosella subulata Delta mudwort	--/--/2B.1	Perennial stoloniferous herb generally occurs under wet conditions in tidal freshwater-marsh habitats, 0-10 feet in elevation. Blooms May-August.	Unlikely. There is no suitable habitat within the Project site.
Orcuttia tenuis slender Orcutt grass	FT/SE/1B.1	Annual herb occurring in gravelly vernal pools at elevations of 115-5,774 feet. Blooms May-October.	Unlikely. There is no suitable habitat within the Project site and elevations at Project site are outside of species' range.
Orcuttia viscida Sacramento Orcutt grass	FE/SE/1B.1	Annual herb found in vernal pools at 98-328 feet in elevation. Blooms May-August.	Unlikely. There is no suitable habitat within the Project site and elevations at Project site are outside of species' range.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Sagittaria sanfordii **Sanford's arrowhead**	**--/--/1B.2**	**Perennial rhizomatous herb found in assorted freshwater habitats including marshes, swamps, and seasonal drainages from 0-2,133 feet in elevation. Blooms May-October.**	**Medium. There is the potential for this species to occur along Florin Creek within the Project site. It has been recorded in similar habitat less than one mile from the Project site in 2012 (CDFW 2014).**
Scutellaria galericulata marsh skullcap	--/--/2B.2	Perennial rhizomatous herb found in lower montane coniferous forest, meadows and seeps (mesic), and marshes and swamps from 0-6,890 feet in elevation. Blooms June-September.	Low. Low quality habitat is present within the Project site.
Scutellaria lateriflor side-flowering skullcap	--/--/2.2	Perennial rhizomatous herb found in meadows and seeps, marshes and swamps from 0-1,640 feet in elevation. Blooms Jul-Sep.	Low. Low quality habitat is present within the Project site.
Symphyotrichum lentum (*Aster chilensus* var. *lentus*) Suisun Marsh aster	--/--/1B.2	Rhizomatous herb occurring in tidal brackish and freshwater marshes at 0-10 feet in elevation. Blooms May-November.	Unlikely. There is no suitable habitat within the Project site.
Trifolium hydrophilum saline clover	--/--/1B.2	Marshes and swamps, Valley and foothill grassland (mesic and alkaline sites), vernal pools at elevation range of 0-1,000 feet. Blooms April-June.	Unlikely. There is no suitable habitat within the Project site.
Critical Habitat			
Hypomesus transpacificus Delta smelt		Critical habitat designated in Stanislaus, Alameda, Contra Costa, San Joaquin, Sacramento, Solano, and Yolo Counties.	Critical habitat is not present within the Project site.
Sensitive Natural Communities			
Coastal and Valley Freshwater Marsh	--/--/--	Quiet sites (lacking significant current) permanently flooded by fresh water (rather than brackish, alkaline, or variable). Prolonged saturation permits accumulation of deep, peaty soils. Dominated by perennial, emergent monocots to 4-5m tall. Often forming completely closed canopies.	Unlikely. This community is not present within the Project site.
Elderberry Savanna	--/--/--	Elderberry savanna occurs along riparian corridors within the Central Valley and the range of this habitat has become restricted due to habitat loss.	Unlikely. There are no riparian corridors or elderberry shrubs within the Project site.

APPENDIX B
SPECIAL-STATUS SPECIES WITH THE POTENTIAL TO OCCUR IN THE PROJECT SITE

Scientific Name Common Name	Status	Habitat Description / Blooming Period	Potential to Occur in the Project site
Great Valley Cottonwood Riparian Forest	--/--/--	Cottonwood riparian forests are important wildlife habitats within the Central Valley and loss of these habitats has become a conservation concern	Unlikely. The Project site is within the City of Sacramento, a highly developed and disturbed area, precluding the presence of riparian forests.
Great Valley Mixed Riparian Forest	--/--/--	Tall, dense, deciduous, broad-leaved riparian forest found along floodplains of low gradient streams in California's Sacramento and San Joaquin Valleys.	Unlikely. The Project site is within the City of Sacramento, a highly developed and disturbed area, precluding the presence of riparian forests.
Great Valley Valley Oak Riparian Forest	--/--/--	A medium to tall (rarely to 100 feet) broadleafed, winter-deciduous, closed-canopy riparian forest dominated by *Quercus lobata*. Understories include scattered *Fraxinus latifolia, Juglans hindsii*, and *Platanus racemosa* as well as young *Quercus lobata*.	Unlikely. The Project site is within the City of Sacramento, a highly developed and disturbed area, precluding the presence of riparian forests.
Northern Hardpan Vernal Pool	--/--/--	Low, amphibious, herbaceous community dominated by annual herbs. Found primarily on alluvial terraces on the east side of the Great Valley in CA.	Unlikely. Vernal pool are not present within the Project site.
Valley oak woodland	--/--/--	Valley oak (*Quercus lobata*) woodlands have become increasingly rare in the California landscape and their conservation has become a growing concern state-wide for resource managers.	Unlikely. The Project site is within the City of Davis, a highly developed and disturbed area, precluding the presence of woodlands.

KEY:

Federal: (USFWS)
- FE = Listed as Endangered by the Federal Government
- FT = Listed as Threatened by the Federal Government
- FC = Candidate for listing by the Federal Government

State: (CDFG)
- SE = Listed as Endangered by the State of California
- ST = Listed as Threatened by the State of California
- SR = Listed as Rare by the State of California (plants only)
- CSC = California Species of Concern

CNPS: (California Native Plant Society)
- Rank 1A = Plants presumed extinct in California
- Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
- Rank 2 = Plants rare, threatened, or endangered in California but more common elsewhere
- Rank 3 = Need more information
- Rank 4 = Limited distribution – a watch list
  - 0.1 = Seriously endangered in California
  - 0.2 = Fairly endangered in California
  - 0.3 = Not very endangered in California
- – = No Listing

SOURCES: USFWS, 2014. CDFG, 2014, CNPS, 2014.

RESOLUTION NO. 2014-027
Adopted by the Sacramento Area Flood Control Agency

ADOPTING THE MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM FOR THE FLORIN CREEK MULTI-USE BASIN PROJECT AND APPROVING THE PROJECT

WHEREAS, the Sacramento Area Flood Control Agency (SAFCA) is the lead agency for the Florin Creek Multi-Use Basin Project (Project); and

WHEREAS, the Initial Study with Intent to Adopt a Mitigated Negative Declaration (MND) was circulated to the public for comments from March 12 through April 10, 2014.

NOW, THEREFORE, BE IT RESOLVED BY THE SACRAMENTO AREA FLOOD CONTROL AGENCY BOARD OF DIRECTORS THAT:

1. The Board of Directors hereby finds that the MND was prepared, published, circulated and reviewed in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, and constitutes an adequate, accurate, objective, and complete Mitigated Negative Declaration in accordance with the requirements of CEQA and the State CEQA Guidelines.

2. The Board of Directors has reviewed the MND and comments received during the public review period and considered the information contained therein prior to acting on the proposed Project and hereby certifies that the MND (Exhibit A, available in its entirety on the front page of SAFCA's website at www.safca.org) as modified in response to the comments received (Exhibit B) reflects the independent judgment and analysis of the Board of Directors.

3. The Board of Directors finds that, on the basis of the whole record before it, there is no substantial evidence that the Project will have a significant effect on the environment.

4. The Board of Directors hereby approves and adopts the MND for the Florin Creek Multi-Use Basin Project based on the analysis and conclusions contained therein.

5. The Board of Directors hereby approves and adopts the Florin Creek Multi-Use Basin Project Mitigation Monitoring and Reporting Program attached hereto as Exhibit C.

6. SAFCA, located at 1007-7th Street, 7th Floor, Sacramento, CA 95814 shall be the custodian of the documents which constitute the record of proceedings upon which this decision is based.

7. The Board of Directors hereby approves and adopts the Florin Creek Multi-Use Basin Project.

ON A MOTION BY Director Yee, seconded by Director Pannell, the foregoing resolution was passed and adopted by the Board of Directors of the Sacramento Area Flood Control Agency, this 17th day of April 2014, by the following vote, to wit:

AYES:	Directors:	Ashby, Barandas, Cohn, Holloway, Nottoli, Pannell, Peters, Serna, Shah, Wolter and Yee
NOES:	Directors:	(None)
ABSTAIN:	Directors:	(None)
ABSENT:	Directors:	(None)
RECUSE:	Directors:	Gallagher and Shiels

Chair of the Board of Directors of the
Sacramento Area Flood Control Agency

(SEAL)

ATTEST:

Clerk of the Board of Directors

PGlr\Florin Basin Reso (the first) - adopt MND.rs.doc
Attachment(s)

EXHIBIT A

FLORIN CREEK MULTI-USE BASIN PROJECT

Initial Study with Intent to Adopt a Mitigated Negative Declaration

Prepared for
Sacramento Area Flood Control Agency

March 2014

DOCUMENT AVAILABLE IN ITS ENTIRETY
ON SAFCA'S WEBSITE AT

WWW.SAFCA.ORG

ESA

EXHIBIT B

Florin Creek Multi-Use Basin Project

Response to Comments and Summary of Text Changes

Comments Received

The Sacrament Area Flood Control Agency (SAFCA) circulated the Initial Study (IS) with Intent to Adopt a Mitigated Negative Declaration for the Florin Creek Multi-Use Basin Project for a 30-day public review period from March 12, 2014 to April 10, 2014. At the close of the public review period, four comment letters were received. These letters are attached in this document. The following summarizes responses to the comments made in these letters.

- California Department of Fish and Wildlife (CDFW) – The IS included analysis of impacts to nesting raptors and migratory bird on pages 2-22 to 2-23 and provided mitigation measures to decrease impacts to nesting raptors. Text changes have been made (see below) to clarify and augment the mitigation measures to address CDFW comments. Further, SAFCA is in the process of conducting protocol-level surveys for the owl as recommended by CDFW. SAFCA will contact CDFW for a Fish and Game Code 1602 Streambed Alteration Agreement as part of the permitting application process.
- Sacramento Metropolitan Air Quality Management District (SMAQMD) – The SAFCA construction bid documents will include the air quality and Greenhouse Gas (GHG) mitigation measures to ensure contractors are fully aware that they must provide equipment list and haul truck information to SMAQMD and pay mitigation fees, as determined by SMAQMD.
- Southgate Recreation & Park District (District) – The District is a "responsible agency" as described by California Public Resource Code 21068. The SAFCA is working with the District and project engineers to: implement measures to protect the Community Center's basement HVAC system and electrical panels, ensure final design of sports fields allows for adequate drainage, reduce tree impacts where feasible, and replace the petanque court with one of similar size and quality if this area is used during construction. The Initial Study indicates that there will be replacement lighting and new lighting along new walkways for public safety in Chapter 1 (page 1-7) and Chapter 2, Section 2.1 – Aesthetics (page 2-2).
- Mr. Kevin Perez: No comments were made that were applicable to the significance of environmental effects of the project under the California Environmental Quality Act (CEQA) or that were applicable to the adequacy of the CEQA document. However, SAFCA and/or the District will contact Mr. Perez to discuss his concerns.
- California Department of Transportation (Caltrans) – SAFCA will prepare a Transportation Management Plan (referred to as a Traffic Control Plan on page 1-11 of the Initial Study) and will coordinate with Caltrans on its preparation. The project will not negatively affect drainage at Florin Creek and State Route 99 upstream of the site because it will reduce rather than increase the water surface elevation in the creek during flows that exceed those of about the 25-year recurrence interval.

Summary of Text Changes to the Initial Study

This errata presents changes to the Initial Study resulting from comments received and/or staff initiated text changes. New text is shown in a double underline and text to be deleted is shown in ~~strike-out~~. The changes identified below are clarifications or amplification of the information and analysis contained in the Initial Study and does not change the results or conclusions.

Page 2-6 (Staff Initiated):

"**Mitigation Measure AIR-1:** The ~~applicant~~ SAFCA shall require the construction contractor to include the following SMAQMD Basic Construction Emission Control Practices in all grading or improvement plans:..."

"**Mitigation Measure AIR-2:** The ~~applicant~~ SAFCA shall require the construction contractor to include the following SMAQMD Enhanced Exhaust Control Practices in all grading or improvement plans:..."

Page 2-7 (Staff initiated):

"**Mitigation Measure AIR-3:** The ~~applicant~~ SAFCA shall coordinate with SMAQMD to determine and ensure payment of off-site mitigation fees to offset the significant NOx emissions associated with the Proposed Project."

Page 2-20 (Staff initiated and in response to CDFW comment letter):

Raptor Species

Common raptor species, such as the red-tailed hawk (*Buteo jamaicensis*) and red-shouldered hawk (*Buteo lineatus*), are not considered special-status species because they are not rare or protected under the federal or State Endangered Species Acts. The Western burrowing owl (*Athene cunicularia*), a state-listed species of special concern, has been found less than a mile of the project site. Although no suitable nesting habitat was found during the biological survey conducted for this report, there is still the potential for presence of the owl on or near the project site. ~~However~~ Further, nests of all of these species of raptors are ~~still~~ protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. Common raptor species are expected to be found within the Project site.

Page 2-22 to 2-23 (In response to CDFW comment letter):

Mitigation Measure BIO-2:

- ***Avoid Active Nesting Season.*** To avoid impacts to tree and shrub nesting bird species, conduct all tree and shrub removal and grading activities during the non-breeding season (generally September 1 through January 31) if feasible. For burrowing owls, surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons.
- ***Conduct Pre-construction Nesting Bird Surveys.*** If construction, grading or other project-related activities are scheduled during the nesting season (February 1 to August 31), pre-construction surveys would be conducted by a qualified wildlife biologist to identify active nests within 250 feet of proposed construction activities for tree-nesting raptors and within 500 feet for burrowing owls. The surveys would be conducted no less than 14 days and no more than 30 days prior to the beginning

of construction. The results of the survey would be emailed to CDFW at least three days prior to construction. Surveys would be conducted by a qualified biologist in accordance with the following protocols:

- Surveys for purple martin and nesting raptors would include at least two preconstruction surveys (separated by at least two weeks).
- Surveys for other migratory bird species would take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat for tree-nesting raptors and within 500 feet for burrowing owls.

Page 2-54 (Staff Initiated):

"**Mitigation Measure NOI-2:** The ~~applicant~~ SAFCA shall implement the following measures to respond to and track complaints pertaining to construction noise:..."

EXHIBIT C

FLORIN CREEK MULTI-USE BASIN PROJECT

Mitigation Monitoring and Reporting Program

The California Public Resources Code Section 21081.6, subdivision (a)(1) requires lead agencies to, "adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation". This Mitigation Monitoring and Reporting Program (MMRP) identifies: mitigation measures adopted by the Sacramento Area Flood Control Agency (SAFCA) for the Florin Creek Multi-Use Basin Project; timing of the action; responsibility for implementation of the mitigation measures; and, responsibility for monitoring implementation of mitigation measures. Mitigation measures were included in the Initial Study (IS) (State Clearinghouse No. 2014032030).

The MMRP table includes the following:

- **Mitigation Measures** – lists the adopted mitigation measures from the EA/IS.
- **Timing** – identifies the timing of implementation of the actions described in the mitigation measures.
- **Responsibility for Implementation** –identifies the agency/party responsible for implementing the actions described in the mitigation measures.
- **Responsibility for Monitoring** – identifies the agency/party responsible for monitoring implementation of the actions described in the mitigation measures.

Abbreviations used in the MMRP include:

- USACE – US Army Corps of Engineers
- CVRWQCB – Central Valley Regional Water Quality Control Board
- SAFCA – Sacramento Area Flood Control Agency
- SMAQMD – Sacramento Metropolitan Air Quality Management District

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Air Quality					
Mitigation Measure AIR-1: The SAFCA shall require the construction contractor to include the following SMAQMD Basic Construction Emission Control Practices in all grading or improvement plans: • All exposed surfaces shall be watered 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 shall 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. • All roadways, driveways, sidewalks, parking lots shall be paved as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment shall be checked by a certified mechanic and determine to be running in proper condition before it is operated.	During Construction	SAFCA	SAFCA		
Mitigation Measure AIR-2: The SAFCA shall require the construction contractor to include the following SMAQMD Enhanced Exhaust Control Practices in all grading or improvement plans: • Provide 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 Proposed Project to the SMAQMD. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The construction contractor shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site	Prior to Construction	SAFCA	SMAQMD		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
foreman. This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment. The inventory shall be updated and submitted monthly throughout the duration of the Proposed Project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. • Provide a plan in conjunction with the equipment inventory, approved by the SMAQMD, demonstrating that the heavy-duty (50 horsepower or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOx reduction and 45% particulate reduction compared to the most recent CARB fleet average. 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. • Emissions from all off-road diesel powered equipment used on the project site shall 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, and the SMAQMD shall be notified within 48 hours of identification of non-compliant equipment. A visual survey of all in-operation equipment shall be made at least weekly, and 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. The SMAQMD and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this measure shall supercede other SMAQMD or state rules or regulations. • If at the time of granting of each building permit, the SMAQMD has adopted a regulation applicable to construction emissions, compliance with the regulation may completely or partially replace this mitigation. Consultation with the SMAQMD prior to construction will be necessary to make this determination.					
Mitigation Measure AIR-3: The SAFCA shall coordinate with SMAQMD to determine and ensure payment of off-site mitigation fees to offset the significant NOx emissions associated with the Proposed Project.	During Construction	SAFCA	SAFCA		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Biological Resources					
Mitigation Measure BIO-1: A qualified biologist shall conduct a pre-construction survey for Sanford's arrowhead within the impacted stream channel and designated wetlands within 30 days prior to construction. If Sanford's arrowhead is not found, then no further measures are necessary. If Sanford's arrowhead is found within the Project site, CDFW will be notified at least 10 days prior to dewatering or construction impacts in the vicinity of Sanford's arrowhead in accordance with the California Native Plant Protection Act of 1977 (CDFW Code Section 1900-1913) to allow sufficient time to transplant the individuals to a suitable location.	Prior to Project Completion – conduct a pre-construction survey	SAFCA	SAFCA/CDFW		
Mitigation Measure BIO-2: • Avoid Active Nesting Season. To avoid impacts to tree and shrub nesting bird species, conduct all tree and shrub removal and grading activities during the non-breeding season (generally September 1 through January 31) if feasible. For burrowing owls, surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons. • Conduct Pre-construction Nesting Bird Surveys. If construction, grading or other project-related activities are scheduled during the nesting season (February 1 to August 31), pre-construction surveys would be conducted by a qualified wildlife biologist to identify active nests within 250 feet of proposed construction activities for tree-nesting raptors and within 500 feet for burrowing owls. The surveys would be conducted no less than 14 days and no more than 30 days prior to the beginning of construction. The results of the survey would be emailed to CDFW at least three days prior to construction. Surveys would be conducted by a qualified biologist in accordance with the following protocols: o Surveys for purple martin and nesting raptors would include at least two preconstruction surveys (separated by at least two weeks). o Surveys for other migratory bird species would take place no less than 14 days and no more than 30 days prior to the beginning of construction within 250 feet of suitable nesting habitat for tree-nesting raptors and within 500 feet for burrowing owls. o If the pre-construction surveys do not identify any nesting raptors or other nesting migratory bird species within areas potentially affected by construction activities, no further mitigation would be required. If the pre-construction surveys do identify nesting	Prior to Construction – pre-construction surveys During Construction – implement protection measures	SAFCA	SAFCA/CDFW		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
raptors or other nesting bird species within areas that may be affected by site construction, the following would be implemented. • Avoid Active Bird Nest Sites. Should active nest sites be discovered within areas that may be affected by construction activities, additional measures would be implemented as described below. • Purple martin and other Migratory Birds: If active nests are found, project-related construction impacts would be avoided by establishment of appropriate no-work buffers to limit project-related construction activities near the nest site. The size of the no-work buffer zone would be determined in consultation with the CDFW although a 500-foot radius would be used when possible. The no-work buffer zone would be delineated by highly visible temporary construction fencing where appropriate. In consultation with CDFW, monitoring of nest activity by a qualified biologist may be required if the project-related construction activity has potential to adversely affect the nest or nesting behavior of the bird. No project-related construction activity would commence within the no-work buffer area until a qualified biologist and CDFW confirms that the nest is no longer active.					
Mitigation Measure BIO-3: If the verified wetland delineation determines that project construction would result in the loss of wetlands and other waters of the U.S, the Project applicant shall obtain a Section 404 (Clean Water Act) permit for impacts to jurisdictional wetlands from the USACE, and a Section 401 permit from the Regional Water Quality Control Board (RWQCB) and shall comply with all conditions of permits received. Terms of these permits would incorporate additional provisions to mitigate for the loss of waters of the U.S., including compensatory mitigation, and would ensure the "no net loss" of wetlands.	Prior to Construction	SAFCA	SAFCA/USACE		
Mitigation Measure BIO-4: Trees adjacent to construction activities may require additional protection. Where feasible, buffer zones shall include a minimum one-foot-wide zone outside the dripline for oaks or landmark trees. The locations of these resources shall be clearly identified on the construction drawings and marked in the field. Fencing or other barriers shall remain in place until all construction and restoration work that involves heavy equipment is complete. Construction vehicles, equipment, or materials shall not be parked or stored within the fenced area. No signs, ropes, cables, or other items shall be attached to the protected trees. Grading, filling, trenching, paving, irrigation, and landscaping within the driplines of oak trees shall be limited. Grading within the driplines of oak trees shall not be	Prior to Construction – conduct pre-construction survey During Construction – implement protection measures	SAFCA	SAFCA		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
permitted unless specifically authorized by a Certified Arborist. Hand-digging must be done in the vicinity of major trees and as recommended by a Certified Arborist to prevent root cutting and mangling by heavy equipment.					
Cultural and Paleontological Resources					
Mitigation Measure CUL-1: If previously undiscovered cultural resources are encountered, all activity shall cease until it can be evaluated by a qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. If the archaeologist determines that the resources may be significant, they will notify SAFCA. An appropriate treatment plan for the resources should be developed. The archaeologist shall consult with Native American representatives in determining appropriate treatment for prehistoric or Native American cultural resources.	During Construction	SAFCA	SAFCA		
Mitigation Measure CUL-2: If paleontological resources are encountered during earthmoving activities, the construction crew shall immediately cease work. SAFCA shall retain a qualified paleontologist to evaluate the resource and prepare a proposed mitigation plan. The proposed mitigation plan may include a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations determined by SAFCA to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resources were discovered.	During Construction	SAFCA	SAFCA		
Mitigation Measure CUL-3: If human skeletal remains are uncovered during project construction, the project proponent will immediately halt work, contact the Sacramento County coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the project proponent will contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted	During Construction	SAFCA	SAFCA/Sacramento County		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.					
Greenhouse Gas Emissions					
Mitigation Measure GHG-1: The SAFCA shall require the construction contractor to include the following SMAQMD best management practices for reducing GHGs in all grading or improvement plans, where feasible: • Improve fuel efficiency from construction equipment: • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5 minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. • Train equipment operators in proper use of equipment. • Use the proper size of equipment for the job. • Use equipment with new technologies (repowered engines, electric drive trains). • Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines). • Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power • Use an ARB approved low carbon fuel for construction equipment. (NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.) • Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes. • Reduce electricity use in the construction office by using compact	Prior to Construction	SAFCA	SAFCA/SMAQMD		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones. • Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight). • Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program. • Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option. • Produce concrete on-site if determined to be less emissive than transporting ready mix. • Use SmartWay certified trucks for deliveries and equipment transport. • Develop a plan to efficiently use water for adequate dust control.					
Hydrology and Water Quality					
The contractor would be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the Central Valley Regional Water Quality Control Board (CVRWQCB). • Prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to initiation of construction activities. The SWPPP would be developed in accordance with guidance from the CVRWQCB. These plans would also be reviewed and approved by the Corps. • Implement appropriate measures to prevent any debris, soil, rock, or other construction activities from getting into the water. The contractor will use appropriate measures to control dust on the project site and stockpiles. • Properly dispose of oil or liquid wastes. • Fuel and maintain vehicles in specified areas that are designed to capture spills. • Inspect and maintain vehicles and equipment to prevent dripping of oil and other fluids. • Schedule construction to avoid as much of the wet season as possible. If rains are forecast during the construction period, erosion control measures would be implemented as described in the SWPPP.	Prior to Construction – prepare SWPPP During Construction – implement measures in SWPPP	SAFCA SAFCA	SAFCA/CVRWQCB SAFCA/CVRWQCB		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
• Train construction personnel in stormwater pollution prevention practices. • Revegetate and restore areas cleared by construction with native grasses in a timely manner to control erosion.					
Noise					
Mitigation Measure NOI-1: SAFCA shall ensure that construction contractors implement the following measures to reduce noise impacts due to construction: • Prohibit construction activities between the hours of eight p.m. and six a.m. on weekdays and Friday commencing at eight p.m. through and including seven a.m. on Saturday; Saturdays commencing at eight p.m. through and including seven a.m. on the next following Sunday and on each Sunday after the hour of eight p.m. These hours correlate to the County Code exemption for construction noise. • Construction equipment noise shall be minimized during Project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturer's specifications) and by shrouding or shielding impact tools; and • Construction contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as feasible from nearby sensitive receptors.	During Construction	SAFCA	SAFCA		
Mitigation Measure NOI-2: The SAFCA shall implement the following measures to respond to and track complaints pertaining to construction noise: • Residents fronting the proposed construction site shall be noticed by mail at least 2 weeks prior to the commencement of construction activity in their area. • The designation of a construction complaint manager for the Proposed Project; and • A listing of telephone numbers to reach the construction complaint manager for the Proposed Project (during regular construction hours and off-hours).	During Construction	SAFCA	SAFCA		
Traffic and Circulation					
Mitigation Measure TRAF-1: Prior to construction activities, a pre-project survey of Project roadways shall be done by the construction contractor in coordination with the City or County to determine existing roadway conditions.	Prior to Construction –	SAFCA	SAFCA/City/County		

FLORIN CREEK MULTI-USE BASIN PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Mitigation Measure TRAF-2: A post-project survey of Project roadways shall be done by the construction contractor in coordination with the City or County to determine if any damage has occurred from construction activities. If so, the contractor shall be responsible for repairing the damage to the satisfaction of the City or County.	At Conclusion of Construction – repair road damage		SAFCA/City/County		

Florin Creek Multi-Use Basin Project

SCH Number: 2014032030

Document Type: NOD - Notice of Determination

Project Lead Agency: Sacramento Area Flood Control Agency

Project Description

Construction and operation of two detention basins with a maximum depth of about eight feet below current ground elevation with a total flood storage volume of approximately 32.5 acre-feet. The detention basins would also provide an opportunity for stormwater management and non-point source control. Because the Park District will work with SAFCA as a project partner, the project would improve recreation and public access. Project features will include a habitat area planted with native plants to provide ecosystem restoration.

Contact Information

Primary Contact:
Pete Ghelfi
Sacramento Area Flood Control Agency
(916) 874-7606
1007 7th Street, 7th Floor
Sacramento, CA 95814

Project Location

County: Sacramento
City: Sacramento
Region:
Cross Streets: Orange Avenue and Persimmon Avenue
Latitude/Longitude:
Parcel No:
Township:
Range:
Section:
Base:
Other Location Info: Southgate

Determinations

This is to advise that the ☒ Lead Agency ☐ Responsible Agency Sacramento Area Flood Control Agency has approved the project described above on 4/17/2014 and has made the following determinations regarding the project described above.

1. The project ☐ will ☒ will not have a significant effect on the environment.

2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.

☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.

3. Mitigation measures ☒ were ☐ were not made a condition of the approval of the project.

4. A Statement of Overriding Considerations ☐ was ☒ was not adopted for this project.

5. Findings ☒ were ☐ were not made pursuant to the provisions of CEQA.

Final EIR Available at: 1007 7th Street, 7th Floor, Sacramento, CA 95814, www.safca.org

Date Received: 4/21/2014

CEQAnet HOME | NEW SEARCH