Exhibit A

Final

SOUTH SACRAMENTO STREAMS PROJECT
FLORIN CREEK PROJECT

Supplemental Mitigated Negative Declaration

DOCUMENT AVAIALBLE IN ITS ENTIERTY ON SAFCA'S WEBSITE

Prepared for
Sacramento Area Flood Control Agency

May 2014

ESA

Final

SOUTH SACRAMENTO STREAMS PROJECT
FLORIN CREEK PROJECT

Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration

Prepared for
Sacramento Area Flood Control Agency

May 2014

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

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SUMMARY

The Sacramento Area Flood Control Agency (SAFCA) circulated a (draft) Initial Study (IS) and Supplemental Mitigated Negative Declaration (SMND) for the Florin Creek Project (April 2014) for a 30-day public review period from April 7, 2014 to May 6, 2014. The comment letters received on the (draft) IS/SMND and responses to comments have been incorporated into this Final IS/SMND. The responses to comments have resulted in revisions to the (draft) IS/SMND to clarify, amplify, or otherwise augment information contained therein. However, none of the significance determinations have changed since the (draft) IS/SMND and no new potential impacts have been identified.

This Final IS/SMND includes the revised text from the previously circulated IS/SMND, the comment letters received, the corresponding responses, as well as the Mitigation, Monitoring and Reporting Program. Furthermore, this finalized version hereby includes and incorporates by reference the unchanged details provided in the April 2014 (draft) IS.

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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.

M. Holly Gilchrist — 4-4-2014

Signature — Date

for Richard M. Johnson — SAFCA

Printed Name — For

SOUTH SACRAMENTO STREAMS PROJECT
FLORIN CREEK PROJECT

Response to Comments and Summary of Text Changes

Comments Received

The Sacramento Area Flood Control Agency (SAFCA) circulated the Initial Study (IS) with a Notice of Intent to Adopt a Supplemental Mitigated Negative Declaration (SMND) for the Florin Creek Project for a 30-day public review period from April 7, 2014 to May 6, 2014. At the close of the public review period, four comment letters and one informal email were received. These letters and email are attached to this document. The following provides responses to the comments made in these letters.

- CalTrans – The Project is designed to increase channel capacity and decrease flooding along Florin Creek and reaches downstream. There would be no rise in the water surface elevation and, therefore, no anticipated impacts to the State Right of Way.
- Sacramento Metropolitan Air Quality Management District (SMAQMD) – The SAFCA construction bid documents will include the air quality and Greenhouse Gas (GHG) mitigation measures in the IS and previously adopted mitigation measures that require contractors to provide an equipment list and haul truck information to SMAQMD and pay mitigation fees for NOx emissions above the 85 pounds per day threshold, as determined by SMAQMD. Previously adopted mitigation measures from the 2005 Supplemental EIR will be required to be implemented by SAFCA, the Central Valley Flood Protection Board (CVFPB), and the US Army Corps of Engineers.
- California American Water (CAW) –
    - The IS discusses CAW's removal of its asbestos –concrete pipes according to state regulations, including those listed on page 3-22. Should the AC pipes be composed of one percent or more of asbestos and is friable, CAW is required to follow the SMAQMD Rule 902 requirements, in addition to other California Code of Regulations for abatement, removal, transportation, and disposal. Please see text changes below for additional text to augment information in the IS. Further, it is the responsibility of CAW's asbestos abatement contractor to identify the appropriate landfill based on the conditions of the pipe identified by testing before removal procedures. Because this is unknown at this time, it would be speculative to identify a specific landfill for the AC pipe material removed.
    - The Project would not require water beyond that used for dust control and other minor construction activities. There is no demand increase for operation of the Project.

- The Project would not affect CAW's nearby groundwater monitoring well as the Project would not excavate below the current depth of the creek bed, and would not be deep enough to encounter or otherwise influence groundwater along Florin Creek. Depth to groundwater is reported to be approximately 46 feet below the ground surface at a nearby California Department of Resources groundwater monitoring well.
- According to CAW, the removal of its 10-inch diameter AC pipe would not impact fire flows serving the area as long as there is no increase in the development of the area. The Project would not result in land use changes resulting in increased development of the area requiring more fire flows. The current vicinity is built out and it would be speculative to anticipate such future development and future water demand. Further, any future land use changes or development would not be under the jurisdiction of SAFCA, and would be subject to separate permitting, CEQA review and documentation, and approval by the City and/or the County, including addressing increases in water demand.

- Central Valley Flood Protection Board (CVFPB) – The Project is co-sponsored by the CVFPB and an encroachment permit is not required.

Summary of Text Changes to the Initial Study

These errata present changes to the IS 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 IS and does not change the results or conclusions.

Page 3-8 (Staff initiated):

Mitigation Measure BIO-1: For construction of the Project design refinements that would occur between March 15 and September 15, pre-construction surveys shall be conducted in suitable nesting habitat within ½-mile of the Project site for Swainson's hawk, within 1,000 feet of the Project site for tree-nesting raptors and northern harriers, and within 500 feet of the Project site for burrowing owls.

Surveys shall conform to the new Swainson's Hawk Technical Advisory Committee (2000) guidelines and CDFW burrowing owl recommendations. Burrowing owl surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons. ~~Burrowing owl surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons.~~ If nesting raptors are recorded within their respective buffers, CDFW will be consulted regarding suitable measures to avoid impacting breeding effort. Measures may include, but are not limited to:

- Maintaining a 500 foot buffer around each active raptor nest and 1,640 feet buffer around each active burrowing owl nest. No construction activities shall be permitted within this buffer except as allowed through consultation with CDFW. This buffer may be reduced in consultation with CDFW.

Mitigation Measure BIO-4:

- ***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 1,640 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 1,640 feet for burrowing owls.

Page 3-12 (Staff initiated):

Mitigation Measure BIO-5: Prior to construction in aquatic habitat, the crews shall receive giant garter snake and western pond turtle awareness training, as directed in the Approved Project. This training shall include, at a minimum, a description of giant garter snake and western pond turtle, their habitat requirements, and a photograph or illustration of the species so that crews can recognize the species. In the event that either species is present in the construction area, a qualified biologist holding necessary permits shall be retained to remove them from the construction area. In the event giant garter snake is present in the construction area, the CDFW shall be contacted.

Page 3-21 (Staff intiated):

"~~An~~ Two asbestos-cement (AC) pipelines owned by CalAm ~~is~~ are…"

Page 3-22 (Staff initiated and in response to CalAm comment letter):

The Project would include the removal and disposal of ~~an~~ two AC pipelines by CalAm in accordance with state regulations. Asbestos exposure and the asbestos abatement process are regulated under state law, and asbestos management and removal must be completed in accordance with 7 California Code of Regulations (CCR) 5208, 8 CCR 1529, and 8 CCR 341.6 through 341.14. 7 CCR 5208 implements worker exposure limits for asbestos, and also requires exposure monitoring, provides for the establishment and demarcation of regulated areas, implements compliance programs, implements employee protection and hazards communication requirements, and provides for employee medical surveillance and reporting as warranted. 8 CCR 1529 regulates asbestos exposure for all construction work

including asbestos abatement and management work by implementing permissible exposure limits (PELS), requiring exposure assessments and monitoring, requiring notification and training of employees, and provides specific requirements for handling and removal of asbestos and asbestos containing materials including removal procedures and worker safety/protection measures. 8 CCR 341.6 through 341.14 provide requirements for asbestos related work implemented through CAL/OSHA, including notification requirements for work with asbestos containing materials, and transport and disposal requirements for asbestos containing materials. Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos.

Prior to removal of the AC pipelines, contractors licensed to conduct asbestos abatement work would be retained by CalAm. Asbestos abatement contractors must follow state regulations contained in 8 CCR 1529, and 8 CCR 341.6 through 341.14 where there is asbestos-related work involving 100 square feet or more of asbestos containing material. Cal/OSHA) must be notified 10 days prior to initiating construction and demolition activities. Asbestos encountered during demolition of an existing building must be transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. All activities for the removal of the AC pipelines would be required to adhere to implementation of OSHA requirements and the deployment of certified abatement contractors.

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

Larry Greene
AIR POLLUTION CONTROL OFFICER

April 24, 2014

SENT VIA E-MAIL ONLY

Mr. Pete Ghelfi
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

South Sacramento Streams - Florin Creek Project
Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration (SAC200400273d)

Dear Mr. Ghelfi:

The Sacramento Metropolitan Air Quality Management District (SMAQMD) reviewed the Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration for the Florin Creek Project released on April 7, 2014. Staff comments follow.

The document is a supplement to previous environmental documents for the South Sacramento Streams Project – the 1998 EIR/EIS, the 2004 EA, and the 2005 Supplemental EIR for Design Refinements. The 2005 Supplemental EIR included mitigation for construction NOx emissions that should carry over to this project. The mitigation language is attached.

All projects are subject to SMAQMD rules in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916-874-4800. A list of specific rules that relate to construction activities is attached for your reference.

Please contact me at 916-874-4881 or khuss@airquality.org if you have any questions regarding these comments.

Sincerely,

Karen Huss

Karen Huss
Associate Air Quality Planner/Analyst

Attachments

Cc: Larry Robinson, SMAQMD

SMAQMD Rules & Regulations Statement (revised 3/12)

*The following statement is recommended as standard condition of approval or construction document language for **all** development projects within the Sacramento Metropolitan Air Quality Management District (SMAQMD):*

All projects are subject to SMAQMD rules in effect at the time of construction. A complete listing of current rules is available at www.airquality.org or by calling 916.874.4800. Specific rules that may relate to construction activities or building design may include, but are not limited to:

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD early to determine if a permit is required, and to begin the permit application process. Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc.) with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a California Air Resources Board portable equipment registration. Other general types of uses that require a permit include, but are not limited to dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.

Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities, storage or any other construction activity to prevent airborne dust from leaving the project site.

Rule 414: Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU PER Hour. The developer or contractor is required to install water heaters (including residence water heaters), boilers or process heaters that comply with the emission limits specified in the rule.

Rule 417: Wood Burning Appliances. This rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.

Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.

Rule 460: Adhesives and Sealants. The developer or contractor is required to use adhesives and sealants that comply with the volatile organic compound content limits specified in the rule.

Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

Naturally Occurring Asbestos: The developer or contractor is required to notify SMAQMD of earth moving projects, greater than 1 acre in size in areas “Moderately Likely to Contain Asbestos” within eastern Sacramento County. Asbestos Airborne Toxic Control Measures, Section 93105 & 93106 contain specific requirements for surveying, notification, and handling soil that contains naturally occurring asbestos.

Erick Cooke

From: Sorgen. KC <sorgenk@SacCounty.NET>
Sent: Tuesday, May 06, 2014 2:58 PM
To: Erick Cooke
Cc: Ghelfi. Pete
Subject: FW: Florin Creek Project draft IS - Comments

KC Sorgen
Natural Resource Specialist
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor | Sacramento, CA 95814
(916) 874-6099 office | (916) 205-5635 cell

From: Gilfourthson.Garcia@amwater.com [mailto:Gilfourthson.Garcia@amwater.com]
Sent: Tuesday, May 06, 2014 2:57 PM
To: Ghelfi. Pete
Cc: Austin.Peterson@amwater.com; Tim.Miller@amwater.com; Sorgen. KC; patrick.luzuriaga@water.ca.gov
Subject: Florin Creek Project draft IS - Comments

Pete,

California American Water (CAW) has reviewed SAFCA's draft Initial Study with the intent to adopt a supplemental mitigated negative declaration for the Florin Creek Project and have the following comments. In general, it appears that the project description could use additional discussion on the impacts of AC pipe removal (for example, discuss in Table 2.1 and sections 2.3.1 and 2.3.4). CAW will need approximately one month for construction and we are limited to the construction period due to environmental regulations. Just for reference, the company name is "California American Water" not "California American Water Company".

1. Under Section 3.17- Utilities and Service Systems, questions f and g, the IS did not address whether there is a local landfill that can accept ACM waste. Similarly, this issue is not addressed in Section 3.8 (Hazards and Hazardous Materials) where the rest of the AC removal is discussed. Location of the disposal site may affect issues such as air quality and transportation.

2.

2. Section 3.17 question c states that no expansion to the existing water facility is needed and the system has sufficient water supply available to serve the project. That statement is true assuming that the only pipe being removed is between Center Parkway and Persimmon Avenue. CAW has not been informed regarding the project's estimated water requirements and therefore could not comment whether it has sufficient supply to support it.

3.

3. Section 3.8 (Hazards and Hazardous Materials) mentions the presence of CAW's AC pipes that will be removed. DTSC and EPA consider an AC pipe as hazardous when it contains more than 1.0% asbestos AND becomes friable where it can be reduced to a powder or dust under hand pressure and becomes airborne. It is likely that a portion of the ACM will become friable during removal and therefore should be considered as a hazardous air pollutant and should be discussed under the Air Quality and GHG sections.

4.

4. Under Hydrology and Water Quality under Section 3.9, California American Water has an existing well adjacent to the creek at Persimmon Ave. Although, the well is currently used as a monitoring well, it is a potential source of supply in the future once equipped with the appropriate pumping and treatment facilities. We would recommend a discussion describing the presence of the well, the project's possible impact to the well, and mitigation measures to protect the facility and the groundwater underneath.

5.

5. Under Section 3.14 - Public Service, it was noted the project will have NO impact to public service and fire protection. This assumes that the existing 4" water main that serves the houses along the north bank of the creek, west of Center Pkwy will not be impacted by the project and does not require removal, please confirm in the IS. Also, retiring the 10" water main does have an impact to the available fire flow in the distribution system in the local vicinity. However, the impact may be considered less than significant and may not require mitigation as long as there will be no development or change of land use in the future the will require more fire flows for fire protection.

6.

Thank you for the opportunity to review this study. Should you have any questions on this letter, please contact me at (916) 568-4249.

Gil Garcia
California American Water
4701 Beloit Drive, Sacramento, CA 95838
Tel: (916) 568-4249
Email: gilfourthson.garcia@amwater.com

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, SUITE 150
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 263-1796
TTY 711

Flex your power!
Be energy efficient!

May 6, 2014

032014-SAC-0080
03-SAC-99/PM 18.782
SCH# 2014042026

Mr. Pete Ghelfi
Sacramento Area Flood Control Agency
1007 7th Street
Sacramento, CA 95814

South Sacramento Streams Project/Florin Creek Project—Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration (SMND)

Dear Mr. Ghelfi:

Thank you for including the California Department of Transportation (Caltrans) in the review and comment process for the South Sacramento Streams Project/Florin Creek Project (Project). The proposed project consists of refinements to previous designs approved in a Supplemental EIR prepared and certified by Sacramento Area Flood Control Agency in 2005. The project would provide flood protection measures including water channel widening, flood conveyance design, shortening length of previously proposed construction along the creek, removal of trees, and fences to meet U.S. Army Corps of Engineers requirements. The project is located along an approximately one-mile segment of Florin Creek from State Route (SR) 99 to Franklin Boulevard. The following comments are based on the SMND.

Traffic Control Plan

We concur with the proposed Traffic Control Plan for this project.

Hydrology

There are several storm water systems that discharge storm water from nearby neighborhoods into Florin Creek, including a 54-inch corrugated metal pipe drainage system. During high flows, the outfalls from these drainage systems would be expected to be submerged in the creek. This could potentially result in back-up in the drainage systems in the neighborhoods.

Sections 2.2.2 and 2.2.4 of the SMND state that floodwalls and berms would be constructed to increase channel capacity. Please clarify whether there is an expected rise in water surface elevation or impacts to the State Right of Way.

If these actions lead to a rise in the water surface elevation, please clarify whether there could be a resulting adverse impact on local residential area drainage networks which drain into the creek through storm drain systems.

If you have any questions regarding these comments or require additional information, please contact Melody L. Friberg, Intergovernmental Review Coordinator, at (916) 263-1625 or by email at: melody.friberg@dot.ca.gov

Sincerely,

ERIC FREDERICKS, Chief
Office of Transportation Planning – South

C: Scott Morgan, State Clearinghouse

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

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

May 1, 2014

Mr. Pete Ghelfi
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, California 95814

Subject: CEQA Comments: South Sacramento Stream Project Florin Creek Project, Mitigated Negative Declaration EIR, SCH No. 2014042026

Location: Sacramento County

Dear Mr. Ghelfi:

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

The proposed project is located adjacent to or within Florin Creek which is under Board jurisdiction. The Board enforces its Title 23, California Code of Regulations (23 CCR) for the construction, maintenance, and protection of adopted plans of flood control that protect public lands from floods. Adopted plans of flood control include federal-State facilities of the State Plan of Flood Control, regulated streams, and designated floodways. The geographic extent of Board jurisdiction includes the Central Valley, and all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and the Tulare and Buena Vista basins (23 CCR, Section 2).

Pursuant to 23 CCR a Board permit is required prior to working in the Board's jurisdiction for the following:

- Placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (23 CCR Section 6);

- Existing structures that predate permitting, or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (23 CCR Section 6);

- Vegetation plantings require submission of detailed design drawings; identification of vegetation type; plant and tree names (both common and scientific); quantities of each type of plant and tree; spacing and irrigation method; a vegetative management plan for maintenance to prevent the interference with flood control operations, levee maintenance, inspection, and flood fight procedures (23 CCR Section 131).

Other local, federal and State agency permits may be required and are the responsibility of the applicant to obtain.

Board permit application forms and our complete 23 CCR regulations can be found on our website at http://www.cvfpb.ca.gov/. Maps of the Board's jurisdiction including all tributaries and distributaries of the Sacramento and San Joaquin Rivers, and Board designated floodways are also available on a Department of Water Resources website at http://gis.bam.water.ca.gov/bam/.

Additional Considerations Related to Potential Impacts of Vegetation and Hydraulics

Accumulation and establishment of woody vegetation that is not managed may have negative impacts on channel capacity and may increase the potential for levee over-topping or other failure. When vegetation develops and becomes habitat for wildlife, maintenance to initial baseline conditions typically becomes more difficult as the removal of vegetative growth may be subject to federal and State resource agency requirements for on-site mitigation. The proposed project should include mitigation measures to avoid decreasing floodway channel capacity.

Adverse hydraulic impacts of proposed encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The proposed project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. If possible off-site mitigation outside of the Board's jurisdiction should be used when mitigating for vegetation removed at the project location.

If you have any questions regarding our CEQA comments please contact James Herota at (916) 574-0651, or via email at james.herota@water.ca.gov. Board staff looks forward to working with Sacramento Area Flood Control Association staff to review your anticipated encroachment permit application.

Sincerely,

Len Marino, P.E.
Chief Engineer

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

SOUTH SACRAMENTO STREAM PROJECT-FLORIN CREEK 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 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. 2014042026).

The MMRP table includes the following:

- **Mitigation Measures** – lists the adopted mitigation measures from the IS/SMND.
- **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

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK 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: For construction of the Project design refinements that would occur between March 15 and September 15, pre-construction surveys shall be conducted in suitable nesting habitat within ½-mile of the Project site for Swainson's hawk, within 1,000 feet of the Project site for tree-nesting raptors and northern harriers, and within 500 feet of the Project site for burrowing owls. Surveys shall conform to the new Swainson's Hawk Technical Advisory Committee (2000) guidelines and CDFW burrowing owl recommendations. Burrowing owl surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons. If nesting raptors are recorded within their respective buffers, CDFW will be consulted regarding suitable measures to avoid impacting breeding effort. Measures may include, but are not limited to: • Maintaining a 500 foot buffer around each active raptor nest and 1,640 feet buffer around each active burrowing owl nest. No construction activities shall be permitted within this buffer except as allowed through consultation with CDFW. This buffer may be reduced in consultation with CDFW. • Depending on conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined in consultation with CDFW), the nest(s) shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall stop construction activities within the buffer until either the nest is no longer active or the project receives approval to continue from CDFW.	Prior to Project Construction – conduct a pre-construction survey During Construction – implement protection measures	SAFCA	USACE/SAFCA/CDFW		
Mitigation Measure BIO-2: For construction of the Project design refinements between March 15 and August 1, at least two pre-construction surveys (separated by at least 2 weeks) for tricolored blackbird colonies shall be conducted in suitable habitat by a qualified biologist. These surveys shall be completed within 30 days of construction. If a colony is identified in or within 500 feet of the Project site, CDFW will be consulted regarding suitable measures to	Prior to Construction – pre-construction surveys During Construction – implement protection measures	SAFCA	SAFCA/CDFW		

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
avoid impacting breeding efforts. Measures may include, but are not limited to: • Maintaining a 500-foot buffer around each colony; no construction activities shall be permitted within this buffer except as allowed through consultation with CDFW. This buffer may be reduced in consultation with CDFW. • Depending on conditions specific to each colony, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined in consultation with CDFW), the colony shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the colony, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall stop construction activities within the buffer until either the colony is no longer active or the project receives approval to continue from CDFW.					
Mitigation Measure BIO-3: Nests or Eggs of Any Bird Species To avoid the removal of active nests and eggs during the nesting season, tree or vegetation removal shall be scheduled to occur outside of the nesting season of February 1 to September 1. If tree or vegetation removal must occur during the nesting season, a pre-construction clearance survey shall be conducted within 30 days of construction in the areas where tree or vegetation is proposed to be removed. If no active nests are detected, construction may proceed. If active nests are detected, 20-foot avoidance zones shall be established to avoid disturbance. If avoidance is not possible, CDFW will be contacted.	Prior to and during Construction	SAFCA	USACE/SAFCA/CDFW		
Mitigation Measure BIO-4: Migratory Bird Avoidance Mitigation. • Avoid Active Nesting Season. To avoid impacts to tree and shrub nesting bird species, SAFCA shall 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	Prior to Construction – conduct pre-construction survey During Construction – implement protection measures	SAFCA	USACE/SAFCA/CDFW		

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Therefore, with implementation of the following mitigation measure from the Approved Project, the Proposed Project would result in less-than-significant impacts.					
Mitigation Measure TRAF-3: On-street parking for construction workers would be prohibited for construction sites with more than twelve workers.					
Mitigation Measure TRAF-4: Off-street parking would be identified and provided to the construction workers and their vehicles and transport trucks. Preferred parking would be located close enough to walk; however, if nearby off-street parking is not available farther off-street parking would be provided with a shuttle van to transport workers to construction sites.					
Mitigation Measure TRAF-5: 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-6: 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.					

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Mitigation Measure BIO-5: Prior to construction in aquatic habitat, the crews shall receive giant garter snake and western pond turtle awareness training, as directed in the Approved Project. This training shall include, at a minimum, a description of giant garter snake and western pond turtle, their habitat requirements, and a photograph or illustration of the species so that crews can recognize the species. In the event that either species is present in the construction area, a qualified biologist holding necessary permits shall be retained to remove them from the construction area. In the event giant garter snake is present in the construction area, the CDFW shall be contacted.	Prior to and during construction	SAFCA	USACE/SAFCA/CDFW		
Mitigation Measure BIO-6: Similar to the mitigation measure adopted for loss of wetlands in the Approved Project, any loss of additional wetlands shall be compensated to the degree needed to replace the functional values supported by this habitat. According to the Habitat Evaluation Procedure (HEP) analysis performed in 1998, the total compensation acreage equals about 1.16 acres (0.71 acre of seasonal wetland, 0.23 acre of emergent marsh, and 0.19 acre of riparian scrub-shrub). The Proposed Project may result in the loss of additional wetlands. These additional wetlands will be replaced in a manner similar to the Approved Project. Suitable off-site mitigation land acquisition or mitigation bank purchase would adequately compensate for impacts associated with project implementation.	Prior to or during Construction	SAFCA	USACE/SAFCA		
Cultural and Paleontological Resources					
Mitigation Measure CUL-1: If any historic or prehistoric find is determined to be significant by a qualified archaeologist, consultation shall occur to determine an appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by a qualified archaeologist according to current professional standards in accordance with CEQA Guidelines Section 15064.5(f).	During Construction	SAFCA	SAFCA		
Mitigation Measure CUL-2: Implement CUL-1	During Construction	SAFCA	SAFCA		
Mitigation Measure CUL-3: In the event of the discovery of human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed, including: 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a. The coroner of the county in which the remains are discovered must be contacted to verify that	During Construction	SAFCA	SAFCA/Sacramento County		

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
the remains are human, that no investigation of the cause of death is required, and b. If the coroner determines the remains to be Native American: i. The coroner shall contact the Native American Heritage Commission within 24 hours. ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.					
Greenhouse Gas Emissions					
Mitigation Measure GHG-1: Vehicles and contractor onsite off-road construction equipment shall comply with the following measures to reduce GHG emissions during construction: • Train equipment operators in proper use of equipment. • Maintain 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. • Use the proper size of equipment for the job.	Prior to Construction	SAFCA	SAFCA/USACE/SMAQMD		

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
				Date Completed	Status/Comments
Hazards and Hazardous Materials					
Mitigation Measure HAZ-1: Prior to construction, a site specific health and safety plan shall be prepared by a qualified health and safety professional. The plan shall include measures to reduce the risk for worker exposure and contamination during construction. A worker awareness program shall be developed and implemented to educate the workers on worker safety measures, other provisions of the health and safety plan, and the correct procedures if exposure or contamination occurs. The health and safety plan will include appropriate coordination with treatment plant and other city and county health and safety personnel.	Prior to Construction	SAFCA	SAFCA/USACE		
Mitigation Measure HAZ-2: The health and safety plan will include a plan for the discovery of unidentified hazardous substances. The plan shall include appropriate testing, remediation, and worker safety measures. This plan will be coordinated with appropriate local health and safety personnel.	Prior to Construction	SAFCA	SAFCA/USACE		
Mitigation Measure HAZ-3: The health and safety plan shall include procedures that would be implemented in case of an emergency. The health and safety plan shall include appropriate coordination with city and county health and safety personnel.	Prior to Construction	SAFCA	SAFCA/USACE		
Noise					
Mitigation Measure NOI-1: Construction equipment shall be outfitted and maintained with noise-reduction devices such as mufflers to minimize construction noise. All internal combustion engines shall be operated with exhaust and intake silencers.	During Construction	SAFCA	SAFCA		
Mitigation Measure NOI-2: To minimize noise effects on nearby residents during noise sensitive periods and to ensure consistency with the construction hourly limits set forth in the City and County of Sacramento Noise Ordinances, construction activities shall be restricted to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays.	During Construction	SAFCA	SAFCA		
Mitigation Measure NOI-3: Prior to construction at each site near residences, written notification to potentially affected residents shall be provided, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to register complaints with the County or City if construction noise levels are overly intrusive or construction occurs outside the required hours.					

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Timing	Responsible for Mitigation	Responsible for Monitoring	Verification and Implementation	
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Mitigation Measure NOI-4: Where feasible and particularly in locations subject to prolonged construction (e.g., borrow sites or the detention basin), noise-generating construction equipment shall be shielded from nearby residences by noise-attenuating buffers such as structures or truck trailers or by placement of soil piles between the receptor and noise-generating activity.					
Mitigation Measure NOI-5: Project construction contractor(s) shall locate fixed construction equipment (e.g., compressors and generators) and construction staging areas as far as possible from noise-sensitive receptors.					
Traffic and Circulation					
Mitigation Measure TRAF-1: Traffic Control Plan (TCP). A TCP for the Proposed Project shall be prepared prior to any construction activities. The TCP shall coordinate all use of public roads with the City of Sacramento, and/or other responsible agencies. This plan would include the following: • Construction vehicles would not be permitted to block any roadways or driveways; • 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; • Vehicles would be required to obey all speed limits, traffic laws, and transportation regulations; • Construction workers would be encouraged to carpool and park in designated staging areas; • Closure of staging areas and construction sites would be clearly fenced and delineated with appropriate closure signage; and, • The contractor shall be required by contract to repair any roads damaged by construction, and to be inspected by the City of Sacramento.	Prior to Construction –	SAFCA	SAFCA/City/County		
Mitigation Measure TRAF-2: Applicable to all construction locations: 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. Project construction activities could increase the demand for on-street parking for construction workers/inspector vehicles and trucks.	At Conclusion of Construction – repair road damage		SAFCA/City/County		

SOUTH SACRAMENTO STREAMS PROEJCT – FLORIN CREEK PROJECT

MITIGATION MONITORING AND REPORTING PROGRAM

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SOUTH SACRAMENTO STREAMS PROJECT
FLORIN CREEK PROJECT

Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration

Prepared for
Sacramento Area Flood Control Agency

April 2014

ESA

SOUTH SACRAMENTO STREAMS PROJECT
FLORIN CREEK PROJECT

Initial Study with Intent to Adopt a Supplemental Mitigated Negative Declaration

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

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209454

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Florin Creek Project Supplemental Initial Study with Intent to Adopt a Mitigated Negative Declaration

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ENVIRONMENTAL CHECKLIST
Initial Study

1. **Project Title:** Florin Creek 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:** Sacramento, CA along Florin Creek from State Route 99 to Franklin Boulevard
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):** NA
7. **Zoning Designation(s):** NA
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.

M. Holly Gilchrist — 4-4-2014

Signature — Date

for Richard M. Johnson — SAFCA

Printed Name — For

CHAPTER 1
Introduction and Background

1.1 Introduction

This section explains the background and purpose of the Florin Creek Project Supplemental Mitigated Negative Declaration (SMND). It establishes the context and scope for the SMND, references relevant previous reports, and outlines the process for reviewing the Draft SMND and issuing the Final SMND. The Sacramento Area Flood Control Agency (SAFCA) is the lead agency under the California Environmental Quality Act (CEQA). A "lead agency" is defined by Section 21067 of CEQA as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

1.2 Background

SAFCA, the Central Valley Flood Protection Board (CVFPB), and the U.S. Army Corps of Engineers (USACE) have conducted numerous studies and have prepared environmental documentation for flood control projects along Morrison, Florin, Elder and Unionhouse Creeks in south Sacramento County. The South Sacramento Streams Group Project included a combination of flood protection features including raising and extending levees, installation of flood walls, and modifications to existing channels. In 1998, the USACE and SAFCA prepared a joint Environmental Impact Study (EIS)/Environmental Impact Report (EIR) (State Clearinghouse Number (No.) 1997102056) (1998 EIS/EIR) in accordance with the National Environmental Policy Act (NEPA) and CEQA.

Following completion of the 1998 EIS/EIR and project approval, the USACE and SAFCA revised and updated hydrologic studies and as a result, developed a series of refined design elements which were evaluated in the South Sacramento Streams Group Project Design Refinements Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) prepared by the USACE in 2004, and in a Supplemental EIR (South Sacramento County Streams Project Supplemental EIR)(SEIR)(State Clearinghouse No. 2004102009) prepared by SAFCA. SAFCA certified the SEIR and approved the project refinements in February 2005 (2005 SEIR). Together, these documents are considered the "Approved Project" throughout this SMND.

Following adoption of the Approved Project, SAFCA, the CVFPB, and the USACE jointly studied flood protection needs on Florin Creek and identified design refinements needed to achieve minimum Federal Emergency Management Agency (FEMA) certifiable 100-year level of flood protection along and downstream of Florin Creek (Proposed Project or Project).

1.3 Environmental Determination

This Initial Study (IS) and SMND was prepared in compliance with the CEQA (as amended), and the CEQA Guidelines (California Code of Regulations, Title 14) to determine if the refinements proposed as part of the Project would result in major revisions to the previously certified 1998 EIS/EIR as supplemented by the 2005 SEIR, or new impacts not previously addressed. As described in CEQA Guidelines § 15163, a supplement to an EIR may be prepared if there are substantial changes proposed that will require major revisions due to the involvement of new significant environmental effects not discussed in the previously certified EIR, and only minor changes are necessary to make the previous EIR adequately apply to the proposed change. The refinements to the Approved Project (Proposed Project) were not known and could not have been known, with the exercise of reasonable diligence, at the time the prior documents were certified. The purpose of this IS and SMND is to provide the additional information necessary to make the previously certified Approved Project adequately analyzed for with current information for the Proposed Project. Accordingly, this SMND only contains the information necessary to evaluate the proposed refinements to the Approved Project that need additional environmental review. Therefore, consistent with CEQA, the analysis in this IS and SMND is limited to the information necessary to assess whether the Proposed Project design refinements would result in significant new or substantially more severe environmental impact than those identified and analyzed in the 1998 EIS/EIR as supplemented by the 2005 SEIR (the Approved Project). Further, relevant mitigation measures described in the Approved Project are incorporated into the Proposed Project and, if applicable, new mitigation measures are identified. The full text of relevant mitigation measures is included in applicable analysis sections in Chapter 3 of this document.

1.4 Documents Incorporated by Reference

Information and findings presented in the 1998 EIS/EIR (State Clearinghouse No. 1997102056) and the 2005 SEIR (State Clearinghouse No. 2004102009), in their entirety, as well as the technical reports and appendices prepared in conjunction, are incorporated by reference into this IS and SMND. These documents are available for review at the SAFCA office during normal business hours, 1007 7th Street, 7th Floor Sacramento, CA 95814.

1.5 Environmental Review Process

This IS and Notice of Intent (NOI) to adopt a SMND is being circulated for agency and public review and comment for 30 days beginning April 7, 2014. All written comments must be received by 5 p.m. May 6, 2014. Written comments or questions concerning this document should be directed to:

Pete Ghelfi
Sacramento Area Flood Control Agency
1007 7th Street, 7th Floor
Sacramento, CA 95814

CHAPTER 2
Project Description

2.1 Introduction

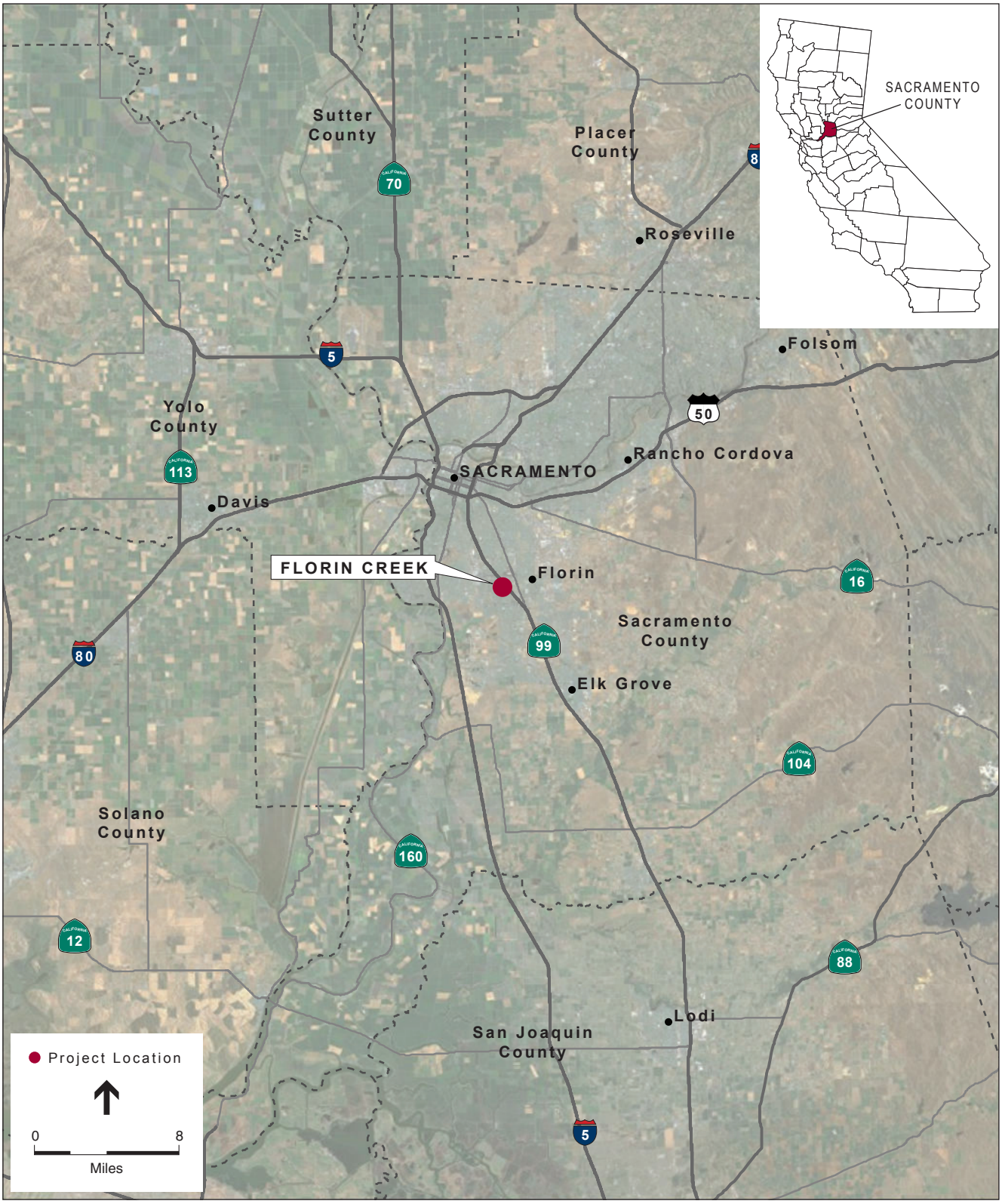
The Proposed Project is located along an approximately one-mile segment of Florin Creek from State Route (SR) 99 to Franklin Boulevard as shown in **Figure 2-1** and **Figure 2-2**. This stretch of Florin Creek is located partially in unincorporated Sacramento County, with most of its length within the City of Sacramento. The Proposed Project consists of refinements that are designed to provide flood protection measures capable of conveying flows of a 100-year flood event within Florin Creek downstream of SR 99 based on more recent studies and design changes since certification of the Approved Project. The Project would continue to provide flood protection with various changes to the Approved Project design elements as described below.

2.2 Design Elements

The Approved Project consisted of improvements along Florin Creek east of SR 99 to Stockton Blvd. for channel widening, floodwalls or sheetpile walls, and along the entire Florin Creek segment from SR 99 to Franklin Boulevard, bridge crossing improvements, and box culverts and drop inlets. The specific refined design elements proposed by the Project to the Approved Project are summarized in **Table 2-1** and discussed in more detail below.

2.2.1 Channel Widening

The Proposed Project would include widening the channel of Florin Creek from SR 99 to approximately 175 feet downstream of Franklin Boulevard to increase the channel capacity and enable the conveyance of 100-year event flood flows, in conjunction with a detention basin project separately considered by SAFCA at Florin Creek Park. **Figure 2-3** illustrates a typical stream cross-section showing the potential extent of channel widening that could occur. The total volume of cleared vegetation and soil that would be excavated and removed is approximately 14,000 cubic yards (cy), which is approximately 9,500 cy less than the Approved Project. Channel excavation would be conducted using in-channel construction methods. As described in the Approved Project, the channel would first be dewatered by installing temporary cofferdams and diverting streamflow around the section to be excavated.



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

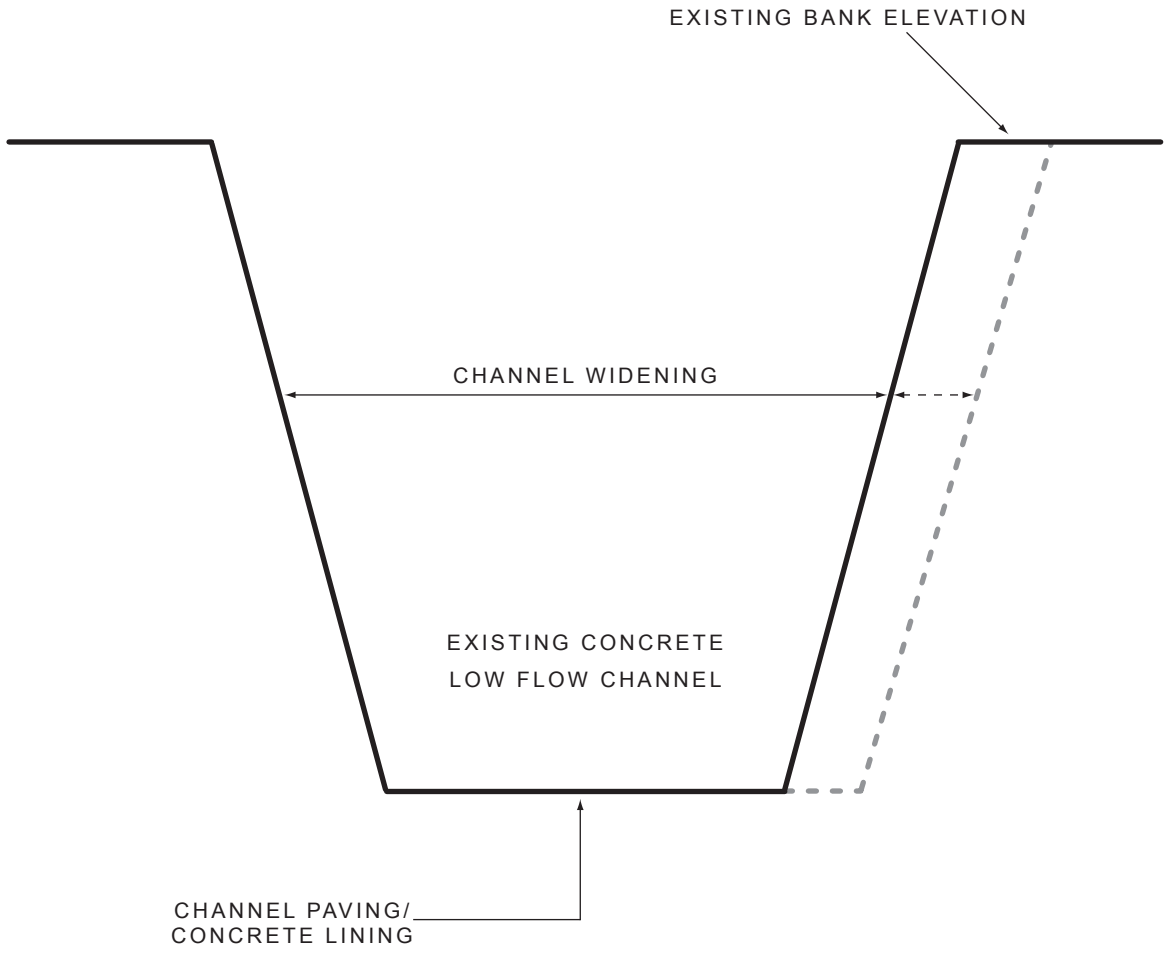
Florin Creek Project . 209454

Figure 2-1
Regional Location

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

Florin Creek Project . 209454

Figure 2-2
Project Location



NOTE: Widening may occur on one side or both sides of existing channel depending on available right of way.

Florin Creek Project . 209454

SOURCE: ESA, 2014

Figure 2-3

Typical Channel Cross-Section Improvements

TABLE 2-1
PROPOSED REFINED DESIGN MEASURES

Proposed Refined Design Measures	Description of Proposed Project.	Description of Approved Project.
Channel Widening	Bottom width of excavation to range from 12 to 39 feet and the top width would increase at the same width as the Approved Project to allow for the required bank slope.	Bottom width excavation from 5 to 25 feet; top width excavation from 15 to 20 feet.
Flood Walls/Sheet Piles	Flood walls would be built along two parcels on the south bank of Florin Creek upstream of Persimmon Avenue bridge. A sheet pile wall would be installed along the north bank of the creek immediately downstream of La Mancha Way.	Flood walls along the entire reach of Florin Creek from SR 99 to Franklin Boulevard on both banks.
Retaining Walls	Retaining walls would be built along the bike path on the north bank immediately downstream of La Mancha Way, and along the Persimmon Ave bridge on all four connections to the bridge.	None.
Construction Staging	Construction staging would now be located on one parcel located at Pomegranate Avenue and La Mancha Way.	Multiple staging areas.
Berms	Minor berms along the banks of Florin Creek would be used upstream of Persimmon Avenue instead of flood walls.	Approved Project design included only floodwalls.
Access	Design refinements would include a new permanent access ramp opposite an existing ramp located at Franklin Boulevard to connect with the existing top of bank maintenance road and temporary ramps as needed to access the channel bottom	The previous Approved Project design used the existing ramp.
Fence Relocation and Tree Removal	Encroachments into the channel ROW include approximately 200 trees, fences, and other features that will be removed as part of the project to meet current USACE engineering design standards.	Previous Approved Project design plans did not identify encroachments within the channel ROW and did not include tree removal.

Channel excavation on Florin Creek was originally proposed from the confluence with Elder Creek to the downstream side of Orange Avenue, east of SR 99. Sensitivity studies showed that there was little to no benefit to channel excavation to Orange Avenue. The reach between Orange Avenue and Stockton Boulevard is a fairly short reach, approximately 650 feet. Various channel widening alternatives were modeled in this reach with little or no change in the water-surface elevation. The design on the remaining reach of Florin Creek would be refined through channel excavation described below.

From approximately 175 feet downstream of Franklin Boulevard upstream to SR 99, the bottom width of the channel would be excavated and widened between 12 to 39 feet wide with top widths to be widened between 15 to 20 feet and side slopes of 1:1.5 remaining the same as the Approved Project. Unlike the previous design evaluated in the Approved Project, the channel bottom would not be excavated below the current grade of the existing concrete channel. Old concrete would be ripped up and disposed of at an approved waste site authorized to accept concrete waste. Vegetation on the channel banks and bottom would be cleared and transported to the nearest landfill for disposal. Removal of two asbestos-cement (AC) pipeline along the north bank of the creek would

be completed after vegetation has been cleared on the bank and before channel widening activities. California American Water Company (CalAm), the owner of the pipelines, would contract State-licensed asbestos abatement contractors for the removal and disposal of the AC pipeline at an appropriate waste facility pursuant to state regulations. Excavated soil from Florin Creek would be transported to the nearest landfill. A concrete channel would be poured in the creek bed after other design measures are completed. When construction is completed, the cofferdam would be removed and water would return to the stream channel.

2.2.2 Flood, Sheetpile, and Retaining Walls

Floodwalls increase channel capacity by adding height to the channel bank or levee without widening the bank or levee. Floodwalls can typically be constructed with "H-pile walls," using steel "H" beams laid in trenches and inserted with precast or cast-in-place concrete to form a wall; or, driving sheetpiles in the streambank/levee. Installation of floodwalls would be coordinated with stream channel excavation to avoid conflicts. Retaining walls would be composed of reinforced concrete constructed in place with forms and designed to engineering standards to structurally contain soil in place behind them.

Floodwall height would be constructed up to 5.6 feet above the existing levee/bank height as a result of the design refinements. However the floodwall's actual exposure at the surface would be limited to two to four feet above the existing grade. This is approximately one foot lower than the original design. Also, whereas the original design specified floodwalls between SR 99 and Franklin Boulevard and along both banks, the Proposed Project design refinements would potentially construct a floodwall only along two parcels upstream of Persimmon Avenue and only on the south (left) bank of Florin Creek. A sheetpile wall would be installed along the north bank of the creek immediately downstream of La Mancha Way. Retaining walls would be built along the bike path on the north bank immediately downstream of La Mancha Way, and along the Persimmon Ave bridge on all four connections to the bridge. The retaining walls along the bike path would extend six inches above the path surface and include a cable railing along the creek side of the path for safety in areas where the drop from the bank exceeds four feet. The retaining walls at the Persimmon Avenue bridge would be flush with the ground surface and also include a cable railing adjacent to the bike path to allow surface water runoff and debris to pass through to the creek.

2.2.4 Berms

Prior to construction of the Project, SAFCA, under a separate project, would build a multi-use detention basin in Florin Creek Park which will provide approximately between 3,000 and 5,000 cy of soil that would be spread out within the construction staging area site, and approximately 1,000 cy of additional soil from the creek excavation work used to create berms along portions of the north and south banks of Florin Creek between Persimmon Avenue and La Mancha Way, as well as a portion of the north and south banks of the creek immediately downstream of Persimmon Avenue. The bicycle path along the north bank will be replaced in the same location along the top of the soil berm.

2.2.5 Access Ramp

The Proposed Project would construct a new permanent access road opposite the existing one at the bridge crossing at Franklin Boulevard to connect with an existing top of bank maintenance patrol road. The existing access ramp would continue to be used to enter the channel for maintenance activities. During construction temporary ramps would be constructed where needed for channel access. No new access ramps were considered under the Approved Project.

2.2.6 Fence Relocation and Tree Removal

The Proposed Project would relocate fences within the Florin Creek right of way (ROW) to the correct ROW property line. In addition, all trees and shrubs within the ROW would be removed. Any heritage tree or native oak tree removed would be mitigated for according to the requirements of the City Heritage Tree Ordinance and the County Oak Tree Preservation and Protection Ordinance.

2.3 Construction Activities

2.3.1 Staging and Material Disposal Sites

Construction staging areas were originally planned on three separate locations in the vicinity of Florin Creek under the Approved Project. The Proposed Project would not require the use of three separate construction staging areas. Staging areas for equipment and materials would be located within a privately owned parcel on the north side of Pomegranate Avenue at La Mancha Way. Several disposal sites would be used depending on the type of material involved. Old concrete from the low-flow channels would be disposed at an approved waste site that accepts concrete waste. Cleared vegetation from the channels would be transported to the nearest approved landfill for disposal.

2.3.2 Equipment and Personnel

Equipment and personnel to be used for the Proposed Project would be similar to those identified for the original design in the Approved Project. Equipment that could be used includes backhoe-loader, excavator with bucket, bulldozer, grader, scrapers, gas and or diesel powered compressor, gas and or diesel powered electric generator, concrete vibrator, vibratory compactor, flatbed truck, dump truck, and haul trucks. Equipment and materials would travel or be transported on local roadways to the construction site. Personnel required for project construction would range from nine to 25 based on specific construction activities and pace of construction.

2.3.3 Construction Access

Access routes for the construction refinements along Florin Creek would be the same as identified and evaluated in the Approved Project, with the exception that most trips would originate from the one staging site to permanent and or temporary access ramps located at each bridge crossing.

2.3.4 Project Construction Schedule

Construction of the entire South Sacramento Streams Group Project was estimated to take approximately six years. The Approved Project anticipated that construction would be carried out on one stream reach per year to minimize potential impacts to special-status species. The Proposed Project would be the only stream reach to be constructed at this time. It is assumed that the Proposed Project could involve simultaneous construction activities including channel excavation (1 crew) and installation of a retaining wall on the Persimmon Ave Bridge (2 crews) at a given time during the construction window of May through October (six months) and could likely be phased over two years beginning in 2015 and ending in 2016. Tree removal and fence relocation is anticipated to begin in 2014.

2.3.5 Operation and Maintenance

Operation and maintenance procedures following construction of the Proposed Project would be similar to those maintenance activities currently employed along Florin Creek as evaluated for the Approved Project. These activities include annual vegetation removal (e.g., mowing, etc.) within the channel and periodic inspection of bridges, outfalls, culverts and berms.

2.4 Other Project Commitments

Certain project commitments incorporated into the Approved Project would be incorporated into the Proposed Project. These commitments include:

- Consultation and coordination with local utility providers, including Sacramento Municipal Utility District, Pacific Gas & Electric Co., Sacramento Area Sewer District, Sacramento Regional County Sanitation District, and local water purveyors, will be performed to ensure avoidance of conflicts with existing utility services or interfere with installation of future facilities that may be installed by these utility providers.

- Mitigation or compensation for the loss of wildlife habitat will be completed through off-site habitat acquisition or participation in an existing, approved mitigation bank.

- Consultation with interested stakeholders, including the California Department of Transportation, and the County and City of Sacramento will be performed to respond to inquiries and concerns regarding the effect of flood control improvements on existing transportation facilities.

- Design measures (e.g., flap gates) will be constructed along each stream reach to maintain existing overland flows to ensure that the proposed improvements do not obstruct these flows into each of the affected waterways.

CHAPTER 3
Environmental Checklist

3.1 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

General aesthetics terms, site views, and the visual resources regulatory environment were described and evaluated in the Approved Project. 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.

Urban development and concrete conveyances contribute to the urbanized character in the Project area. Much of the area includes residential neighborhoods and commercial businesses. The banks of Florin Creek are covered with vegetation consisting or nonnative annual grasses, various shrubs, and scattered willows in some areas. Florin Creek cannot be viewed from SR 99 looking west due to a sound barrier/wall. Other local road crossings over Florin Creek are characteristic of an urban stormwater channel framed by fences and trees along the tops of both banks of the creek.

Discussion

a,b) **No Impact.** There are no scenic vistas or scenic resources in the Project area and the existing topography limits viewing.

c) **Less-than-Significant.** Because the Project area is urban in character and Florin Creek is lined with concrete in most locations, the Proposed Project would result in little change to the immediate drainage corridor when compared to existing conditions. The principal visual features that would be different from the Approved Project would be a significant reduction in the construction of floodwalls along Florin Creek from both banks and along the entire reach (from SR 99 to Franklin Boulevard) to potentially just along the south bank adjacent to two parcels upstream of Persimmon Avenue. While the proposed floodwalls, sheetpile walls, and retaining walls would constitute new features in the local landscape, they would be designed to conform to applicable federal and state construction design specification and design guidelines and would be maintained in accordance with applicable Sacramento County and City of Sacramento regulations so that they blend in with nearby structures and are textured appropriately to discourage graffiti, as identified in the Approved Project. The proposed refinements would likely be visible from local roadways and adjacent residents, however through the implementation of an inconspicuous design impacts to aesthetics would continue to be less-than-significant.

The Proposed Project would result in the removal of approximately 200 trees along the banks of Florin Creek that were not previously identified in the Approved Project. Removal of these trees is necessary to meet USACE engineering design standards. Further, recent property boundary surveys have revealed encroachment within the Florin Creek ROW from residential fences and the establishment of mostly ornamental trees and shrubs along the fence lines. As a result, fences identified within the ROW would be moved further away from the channel and banks to the correct ROW boundary, and trees within the ROW would be removed. The trees identified for removal within the ROW are spread out along the entire reach from SR 99 to Franklin Boulevard. Many of the trees proposed to be removed, while visible from adjacent residences are not directly visible by the general public; therefore removal of the trees would not result in a significant change in existing urbanized landscape views.

d) **No Impact.** The Proposed Project would not install or incorporate any new sources of light or glare.

3.2 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 Project design refinements are located in an urban area that is surrounded by residential and commercial development, urban roads, parks, and SR 99. No land within the Florin Creek ROW is designated for agricultural use.

Discussion

a-e) **No Impact.** The Project design refinements are located along a segment of Florin Creek which is not designated as Prime, Unique, or Farmland of Statewide Importance; or an area zoned as forest, timberland or used for timber production. As such, the Project would not convert agricultural or forest lands to other uses, or conflict with existing agricultural and timberland zoning or a Williamson Act contract.

3.3 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 within the Sacramento Metropolitan Air Quality Management District (SMAQMD). Sacramento County is currently designated as a nonattainment area for federal and state ozone, particulate matter $(PM)_{10}$, and $PM_{2.5}$ standards. PM_{10} and $PM_{2.5}$ 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. PM_{10} standards are also designed to protect visibility and prevent vegetation damage. The air districts within the lower Sacramento Valley develop plans designed to achieve the state and federal ozone, PM_{10}, and $PM_{2.5}$ standards. These plans present comprehensive strategies to reduce ozone precursors (reactive organic gas [ROG] and nitrogen oxide [NOx]), PM_{10}, and $PM_{2.5}$ emissions from stationary, area, mobile, and indirect sources. Such strategies include the adoption of rules and regulations, enhancement of CEQA participation, adoption of local air quality plans, and stationary, area, mobile, and indirect-source control measures.

Discussion

a) **No Impact.** The Project would result in construction of modifications not previously analyzed for the Approved Project. Specific air quality impacts related to criteria pollutants are discussed in responses to Checklist Items b) and c) below. The Proposed Project would comply with SMAQMD regulations and would not produce any emissions above the thresholds of significance (see below). The Project is part of a larger flood control project within an urbanized area of Sacramento County and would not facilitate growth. Therefore, the Project would not conflict with or obstruct implementation of SMAQMD's Air Quality Attainment Plan.

b) **Less-than-Significant.** Project construction emissions would be short-term or temporary in duration. Project construction activities would generate fugitive dust (defined as dust created by the project that falls outside of the project boundaries), including PM_{10} and $PM_{2.5}$. 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 phased over either a single year or two years with construction activities scheduled from May to October beginning in 2015 and ending in 2016. Tree removal and fence relocation is anticipated to begin in 2014. Although construction would generate emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$, SMAQMD has only developed mass emission thresholds for NOx of 85 pounds per day. Modeling of construction activities has shown that NOx emissions would be approximately 54 pounds per day modeled for a condensed four-month construction period (see Appendix A for modeling details). Therefore, the Project would not exceed the SMAQMD thresholds for the much longer construction schedule.

SMAQMD has also established significance thresholds for PM_{10} that are based on the Proposed Project's contribution to ambient PM_{10} concentrations. Projects that implement SMAQMD's Basic Construction Emission Control Practices and that cover less than 15 acres are considered by the District to not have the potential to exceed or contribute to the District's concentration-based threshold of significance for PM_{10} (and, therefore, $PM_{2.5}$) at an off-site location (SMAQMD 2009).

The Proposed Project would be subject to SMAQMD's Rule 403, which restricts fugitive dust generation during construction, as enforced by SMAQMD staff. The Project contractors would be required to follow this rule by implementing the following measures as part of the Project:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would travel along freeways or major roadways would 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 to be paved would be completed quickly as possible.

The Project would also be subject to California regulations that limit vehicle idling (California Code of Regulations Title 13, §2449(d)(3) and §2485). Compliance with these regulations would ensure that project construction would be consistent with

SMAQMD's Basic Emission Control Practices. Consequently, the Proposed Project would not result in a significant PM_{10} or $PM_{2.5}$ impact.

Therefore, construction of the Proposed Project would not violate air quality standards or substantially contribute to an existing or projected air quality violation. Project operational emissions include minor maintenance activities that would not differ substantially from current maintenance activities in Florin Creek as covered in the Approved Project. Consequently, the Proposed Project's increase in operational emissions would be negligible.

c) **Less-than-Significant.** Sacramento County is currently designated as a federal and state nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. As discussed in Checklist Item b) above, the Project's construction related activities would result in temporary increases in ROG, NOx, PM_{10} and $PM_{2.5}$ emissions. However, these emission increases are less than the applicable SMAQMD significance thresholds. The Proposed Project would generate a negligible amount of operational emissions that would not differ from current maintenance landscaping activities that occur along Florin Creek on an infrequent basis. The Proposed Project would not require workers for its daily operation. As described above in Checklist Item b), the Project's emissions would be limited to construction and those construction emissions are considered to be less than significant; consequently, the Project's cumulative impacts would also be less than significant. As discussed in Checklist Item a), above, the Project would be consistent with the SMAQMD's Air Quality Attainment Plan, which is designed to ultimately achieve attainment of air quality goals and standards. Therefore, the contribution of the Project to cumulative air quality impacts would be less than significant.

d) **Less-than-Significant.** The nearest sensitive receptors to Florin Creek are the residences adjacent to both banks of the creek. The pollutants of concern that would impact sensitive receptors in the Project area are fugitive PM_{10} and $PM_{2.5}$ dust, and diesel particulate matter exhaust from construction equipment. Emissions of PM_{10} and $PM_{2.5}$ are discussed in Checklist Item b), above, and would not be significant. The construction period for the Project is four months and the Project would not use substantial quantities of construction equipment. Thus, Proposed Project construction activities would not pose long-term or significant health risks to nearby residents in the vicinity.

e) **Less-than-Significant.** The closest sensitive receptors are homes adjacent to Florin Creek. 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, 2009b. *Guide to Air Quality Assessment*. Adopted December 2009 and last updated October 2013.

3.4 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, 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

As evaluated in the Approved Project, Florin Creek is a freshwater perennial stream that is, surrounded by urban land uses which have limited the diversity and quality of the natural habitats in the creek. Florin Creek was determined by the USACE to be waters of the U.S. and subject to provisions of the Clean Water Act (CWA) for the deposit of dredged or fill material into the waterway. Florin Creek is a narrow incised channel with a low-flow concrete liner from Pomegranate Ave downstream to the confluence with Elder Creek. This stretch of the creek supports nonnative grassland species along the banks, and some scattered willows.

Wildlife species associated with Florin Creek are generally those species that can tolerate human disturbance. These species include some common birds such as western meadowlark (*Sturnella neglecta*), house sparrow (*Passer domesticus*), house finch (*Carpodacus mexicanus*), red-winged blackbird (*Agelaius phoeniceus*), western scrub-jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), yellow-billed magpie (*Pica nuttalli*), and mourning dove (*Zenaida macroura*). In addition, some small mammal species such as house mouse (*Mus musculus*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis marsupialis*), raccoon

(*Procyon lotor*), and California vole (*Microtus californicus*) travel along the channel corridor. Vegetation communities, wildlife habitats, and special-status species within the Proposed Project Florin Creek segment have not changed since the Approved Project.

In conducting the following impact analysis, three principal components of the Guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the following impacts considered the interrelationship of these three components. For example, a relatively small magnitude impact to a state or federally listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a plant community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact. Some impacts may be partially mitigated through implementation of the avoidance, minimization, and mitigation measures adopted in the Approved Project. Unless otherwise noted, impacts below requiring mitigation include previously adopted mitigation measures in the Approved Project, as applicable to Florin Creek biological resources.

Discussion

a) **Less-than-Significant with Mitigation.**

Impacts to Nesting Raptors and Tricolored Blackbird. The Proposed Project includes the removal of vegetation that could result in a loss of nests and/or a temporary disturbance of nests from construction activities and the potential loss of habitat not previously evaluated for the Approved Project. Removal or causing the failure of nests of the species would be considered a potentially significant impact. Implementation of the following mitigation measures adopted for the Approved Project and from subsequent permits through USFWS and the CDFW would reduce impacts to nesting raptors and migratory birds to less than significant.

> **Mitigation Measure BIO-1:** For construction of the Project design refinements that would occur between March 15 and September 15, pre-construction surveys shall be conducted in suitable nesting habitat within ½-mile of the Project site for Swainson's hawk, within 1,000 feet of the Project site for tree-nesting raptors and northern harriers, and within 500 feet of the Project site for burrowing owls.
>
> Surveys shall conform to the new Swainson's Hawk Technical Advisory Committee (2000) guidelines and CDFW burrowing owl recommendations. Burrowing owl surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding (December 1 to January 31) seasons. Burrowing owl surveys shall be conducted in both the breeding (April 15 to July 17) and non-breeding

(December 1 to January 31) seasons. If nesting raptors are recorded within their respective buffers, CDFW will be consulted regarding suitable measures to avoid impacting breeding effort. Measures may include, but are not limited to:

- Maintaining a 500 foot buffer around each active raptor nest. No construction activities shall be permitted within this buffer except as allowed through consultation with CDFW. This buffer may be reduced in consultation with CDFW.
- Depending on conditions specific to each nest, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined in consultation with CDFW), the nest(s) shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall stop construction activities within the buffer until either the nest is no longer active or the project receives approval to continue from CDFW.

Mitigation Measure BIO-2: For construction of the Project design refinements between March 15 and August 1, at least two pre-construction surveys (separated by at least 2 weeks) for tricolored blackbird colonies shall be conducted in suitable habitat by a qualified biologist. These surveys shall be completed within 30 days of construction. If a colony is identified in or within 500 feet of the Project site, CDFW will be consulted regarding suitable measures to avoid impacting breeding efforts. Measures may include, but are not limited to:

- Maintaining a 500-foot buffer around each colony; no construction activities shall be permitted within this buffer except as allowed through consultation with CDFW. This buffer may be reduced in consultation with CDFW.
- Depending on conditions specific to each colony, and the relative location and rate of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the breeding effort. In this case (to be determined in consultation with CDFW), the colony shall be monitored by a qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the colony, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall stop construction activities within the buffer until either the colony is no longer active or the project receives approval to continue from CDFW.

Impacts to Nests or Eggs of Any Bird Species. There are many bird species that nest in shrubby vegetation in riparian areas or in annual grassland. CDFW Code Section 3503 has provisions against taking, possessing, or needlessly destroying eggs or nests of any birds. Removal of vegetation and ground disturbance in the borrow areas for the project may cause the destruction of nests and eggs. Therefore, this impact is considered potentially significant.

Mitigation Measure BIO-3: To avoid the removal of active nests and eggs during the nesting season, tree or vegetation removal shall be scheduled to occur outside of the nesting season of February 1 to September 1. If tree or vegetation removal must occur during the nesting season, a pre-construction clearance survey shall be conducted within 30 days of construction in the areas where tree or vegetation is proposed to be removed. If no active nests are detected, construction may proceed. If active nests are detected, 20-foot avoidance zones shall be established to avoid disturbance. If avoidance is not possible, CDFW will be contacted.

Removal of Nesting or Foraging Habitat for Migratory Bird Species. The Proposed Project would result in the removal of approximately 200 mature trees and shrubby vegetation within the Florin Creek ROW. Several migratory bird species either nest or forage in vegetation similar to that which would be removed by the Project. Areas impacted by construction activities would be restored after construction with appropriate native grassland species. A large number of common bird species are migratory and fall under the jurisdiction of the Migratory Bird Treaty Act (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, mourning dove, and black phoebe. Numerous migratory bird species have the potential to nest within the Project site. The nests of all migratory birds are protected under the MBTA, which makes it illegal to destroy any active migratory bird nest. Therefore, removal of trees and shrubs during the nesting season would be a significant impact. Implementation of the following new mitigation measure would reduce impacts to nesting migratory birds to a less-than-significant impact.

Mitigation Measure BIO-4: Migratory Bird Avoidance Mitigation.

- ***Avoid Active Nesting Season.*** To avoid impacts to tree and shrub nesting bird species, SAFCA shall 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 shall be conducted by a qualified wildlife biologist to identify active nests within 250 feet of Project construction activities. The surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction. Surveys shall be conducted by a qualified biologist in accordance with the following protocols:
  - Surveys for purple martin and nesting raptors shall include at least two pre-construction surveys (separated by at least two weeks).
  - Surveys for other migratory bird species shall 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 shall be implemented.

- ***Avoid Active Bird Nest Sites.*** Should active nest sites be discovered within areas that may be affected by construction activities, Project-related construction impacts shall be avoided by establishment of appropriate no-work buffers to limit construction activities near the nest site. The size of the no-work buffer zone shall be determined in consultation with the CDFW although a 500-foot buffer shall be used when possible. The no-work buffer zone shall 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 shall commence within the no-work buffer area until a qualified biologist and CDFW confirms that the nest is no longer active.

Temporary Loss of Foraging Habitat for Swainson's hawks. The Project design refinements would not have any additional effects to known nest sites for Swainson's hawk, but would affect additional potential foraging habitat (i.e., annual grassland) in the project area. These effects would be temporary. A large amount of foraging habitat currently exists within a 1- to 5-mile radius of known nest sites. Therefore, Swainson's hawks would have alternative foraging areas during project construction. Any annual grassland removed for construction will be restored. Therefore, the temporary loss of foraging habitat would be considered a less-than-significant impact.

Disturbance of Bat Roost Sites. Special-status bat species have a low potential of occurring in the project area due to the no suitable roost sites available in the Project site. However there is suitable foraging habitat within the Project site. These bats potentially roost in areas adjacent to the Project site and construction activities may cause disturbance to bats roosting in the area. This disturbance would be temporary and short-term. The temporary disturbance of roosting bats would be considered a less-than significant impact.

Direct or Indirect Impacts to Giant Garter Snake and Western Pond Turtle. Giant garter snake may occur in the Florin Creek or in uplands within 200 feet of the channel. Appropriate habitat has been identified in the Project area. Excavation of the stream channels and construction of the flood control measures could impact the species. However, impacts are expected to be minimal due to:

- the effect to individuals would be temporary;
- adjacent aquatic habitat is limited to lined channels for most of the snake's active period; and
- use of the area is expected only during downstream flooding or during other dispersal activities.

In addition SAFCA would ensure implementation of the respective terms and conditions and reasonable and prudent measures identified in the Biological Opinion (BO) by the USFWS from April 15, 2002 (as amended on November 15, 2004). The BO includes the USFWS' *Standard Avoidance and Minimization Measure During Construction Activities in Giant Garter Snake Habitat* including the requirement that construction be limited to the period between May 1 and October 1, the active period for the snake.

Western pond turtle may also occur in the Florin Creek and could likewise be impacted. Impacts to western pond turtle would be limited to disturbance of individuals during construction of the Project design refinements and temporary loss of habitat due to dewatering during construction. Disturbance during construction would be temporary and short-term. Habitat for the western pond turtle would be restored following construction. The potential for loss of western pond turtle individuals and habitat would be considered a less-than-significant impact with mitigation.

> **Mitigation Measure BIO-5:** Prior to construction in aquatic habitat, the crews shall receive giant garter snake and western pond turtle awareness training, as directed in the Approved Project. This training shall include, at a minimum, a description of giant garter snake and western pond turtle, their habitat requirements, and a photograph or illustration of the species so that crews can recognize the species. In the event that either species is present in the construction area, a qualified biologist holding necessary permits shall be retained to remove them from the construction area.

Direct or Indirect Impacts to Special-Status Plant Species. Five special-status plant species, Suisun marsh aster, rose-mallow, Delta tule-pea, Sanford's arrowhead, and blue skullcap, may grow in or at the margin of Florin Creek and could be impacted by construction. Sanford's arrowhead has been detected in the Project area. Mitigation measures from the 1998 EIS/EIR include conducting rare plant surveys in the Project area and removing and relocating any individuals detected. Due to channel widening, the area of potential habitat would actually be increased over the long term. Therefore, direct or indirect impacts to these species would be considered less-than-significant.

b,c) **Less-than-Significant with Mitigation.**

***Riparian*.** Critical habitats are areas considered essential for the conservation of a species listed as endangered or threatened under the federal Endangered Species Act (ESA). Critical habitats are specific geographic areas that contain features essential for conservation of listed species and may require special management and protection. Critical habitat can include an area not currently used by an endangered or threatened species, but that could be needed for species recovery. Projects involving a federal agency or federal funding are required to consult with the USFWS to ensure that project actions do not destroy or adversely modify critical habitat. Although areas along the banks of Florin Creek could be considered poor quality riparian habitat, a current review of information for USFWS Critical Habitat for Threatened and Endangered Species shows that the Project site is currently not located within any designated critical habitat.

Further, since ongoing maintenance activities remove vegetation annually, impacts to riparian vegetation are considered less-than-significant.

Annual Grassland. The loss of additional introduced annual grassland habitat within the Project site does not constitute a significant impact to biotic resources due to its local and regional abundance and to the degraded nature (i.e., prevalence of non-native plant species) of much of this community. The Project site encompasses approximately 10 acres are primarily nonnative annual grassland and consists of an urban landscape rather than annual grassland. Annual grassland vegetation removed would be restored following construction. Therefore, this impact is considered less-than-significant.

Wetlands/Waters of the US. Implementation of the Proposed Project would result in the temporary disturbance of federally protected wetlands, including waters of the U.S., within Florin Creek covered in the Approved Project with the following adopted mitigation measure.

> **Mitigation Measure BIO-6:** Similar to the mitigation measure adopted for loss of wetlands in the Approved Project, any loss of additional wetlands shall be compensated to the degree needed to replace the functional values supported by this habitat. According to the Habitat Evaluation Procedure (HEP) analysis performed in 1998, the total compensation acreage equals about 1.16 acres (0.71 acre of seasonal wetland, 0.23 acre of emergent marsh, and 0.19 acre of riparian scrub-shrub). The Proposed Project may result in the loss of additional wetlands. These additional wetlands will be replaced in a manner similar to the Approved Project. Suitable off-site mitigation land acquisition or mitigation bank purchase would adequately compensate for impacts associated with project implementation.

d) **Less-than-Significant.** During non-flood condition, waters from Florin Creek via Morrison Creek are pumped into the Sacramento River by the City of Sacramento before it flows into the Beach Lake area. During flood conditions, Florin Creek flows downstream into Elder Creek, then into Morrison Creek, ultimately discharging over a weir into Beach Lake, which is tributary to the Mokelumne River. Therefore, the pump creates an impassable barrier to fish species in the Sacramento River. However, there is some limited potential for common, warmwater fish species in Florin Creek. The creek is channelized with very low flows in the summer and little to no streamside vegetation. This combination leads to high water temperatures and poor water quality and resulting poor fish habitat. Additionally, Florin Creek has a concrete low-flow liner with little to no substrate on the creek bottom for cover or food and annual maintenance practices include removing vegetation in the creek and on the lower portion of the banks. This annual disruption discourages conditions favorable for fish, such as overhanging streamside vegetation. Occasionally, fish do appear in the creeks, usually as upstream or downstream migrants that travel through when flows are high or become stranded in the creeks after a period of high flows. Therefore, the Project would have a less-than-significant impact.

e) **Less-than-Significant**. The Proposed Project would remove approximately 200 trees along Florin Creek. Additionally, Project activities could harm retained trees by direct

impacts to tree limbs, trunk, or roots, or indirect impacts through changes in hydrology or water quality impacts. Some of these trees to be removed would include trees that meet the criteria of a heritage tree under the City of Sacramento's Heritage Tree Ordinance. Also, some of the trees are native oaks that would meet the criteria for mitigation according to Sacramento County's Tree Preservation Ordinance. The SAFCA would consult with and follow the City and County tree ordinances to mitigate for the loss of heritage and native oak trees, respectively.

These protection requirements would pertain to all large mature trees that meet the specified criteria within the City and County Ordinances planted within the Project ROW. The precise number of trees to be removed is not known at this time, however because the Project would comply with the City and County Ordinances for identification of heritage and native oak trees, application for removal of heritage and oak trees, and mitigation fees paid to a Tree Preservation Fund, impacts would be less than significant.

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.

3.5 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 an 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 regional cultural resources setting and regulatory framework for evaluation and protection of cultural resources was described previously for the Approved Project. Based on the results of previous records and surveys conducted for the Approved Project, in addition to an updated records with the North Central Information Center conducted for the Proposed Project, there are no recorded prehistoric or historic archeological sites or historic structures within the Area of Potential Effect (APE) for the Proposed Project. No properties are listed on, or eligible for, the National Register of Historic Places. No known cultural resources would be affected by the Proposed Project. The updated records and literature search within the Project site was negative for cultural resources.

Discussion

a,b) **Less-than-Significant with Mitigation.** Previous record searches and field surveys were conducted for the Approved Project and an updated record search was performed for the Proposed Project. Results of the field survey for the Approved Project concluded that no cultural resources were identified at the surface, including along the Project design refinements. Based on these findings and the updated records search, no recorded prehistoric or historic archeological sites or historic structures would be affected by the Proposed Project. These findings in conjunction with the urban and disturbed nature of much of the Project site make the potential for unearthing unrecorded archaeological resources unlikely. Nonetheless, in considering the proposed excavation as part of the Project, it is possible that construction activities could encounter significant cultural resources at depth. With the implementation of the prescribed mitigation, this impact would be reduced to a less-than-significant level.

> **Mitigation Measure CUL-1:** If any historic or prehistoric find is determined to be significant by a qualified archaeologist, consultation shall occur to determine an appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by a qualified archaeologist according to current professional standards in accordance with CEQA Guidelines Section 15064.5 (f).

c) **Less-than-Significant with Mitigation**. The Project area contains recent alluvium of stream channel, stream overflow, and alluvial fan deposits. The sediments are Pliocene and Quaternary marine and non-marine sedimentary rock sources. Given the relatively young geomorphic characteristics of the Project area, the probability of encountering paleontological resources is substantially reduced. This notwithstanding, significant fossil discoveries can be made even in areas designated as having low potential, and may result from the excavation activities related to the Proposed Project. This impact would be reduced to a less-than-significant level with the incorporation of the following mitigation measure.

Mitigation Measure CUL-2: Implement Mitigation Measure CUL-1.

d) **Less-than-Significant with Mitigation.** Impacts to human burials or remains are not expected to result from Project-related construction. However, the subsurface excavation required for construction of the Project design refinements could potentially disturb or destroy human remains from both prehistoric and historic time periods, including those interred outside of formal cemeteries. This is considered a potentially significant impact that would be reduced to a less-than-significant level by implementation of the following mitigation.

Mitigation Measure CUL-3: In the event of the discovery of human remains, CEQA Guidelines 15064.5 (e)(1) shall be followed, including:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    a. The coroner of the county in which the remains are discovered must be contacted to verify that the remains are human, that no investigation of the cause of death is required, and
    b. If the coroner determines the remains to be Native American:
        i. The coroner shall contact the Native American Heritage Commission within 24 hours.
        ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
        iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

3.6 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

The regional geologic, soils and seimicity setting and regulatory framework for evaluation of impacts was described previously for the Approved Project.

Discussion

a-e) **No Impact.** The Proposed Project would not involve the construction of any habitable structures; and therefore, would not expose people to risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. All structures and facilities would be required to comply with standard engineering practices and Uniform Building Code (UBC) requirements for areas located in Seismic Hazard Zone 3.

3.7 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). To date, there is no guidance for GHG thresholds for construction activities by SMAQMD or other regional air districts.

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 (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. These have been listed as Project requirements in the Checklist Section 3.3 (Air Quality). GHGs would be generated by on- and off-road construction vehicles and equipment, and by worker commute trips to the Project site. Emissions from construction activities associated with the Proposed Project would generate up to 214.8 metric tons CO_2e in if construction were conducting in one year. This is considered a potentially significant impact, and mitigation measure GHG-1 is identified to reduce the impact to less than significant.

The Project would not increase operational emissions. There would be periodic maintenance activity and associated GHG emissions at the Project site. However, maintenance activity would be similar to existing activities and, therefore, the Project would not increase operational GHG emissions and no mitigation is required.

Mitigation Measure GHG-1: Vehicles and contractor onsite off-road construction equipment shall comply with the following measures to reduce GHG emissions during construction:

- Train equipment operators in proper use of equipment.
- Maintain 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.
- Use the proper size of equipment for the job.

Implementation of the above listed measures would maintain the Project's construction-related GHG emissions at a less than significant level.

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.

3.8 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

A records search for known hazardous materials sites was conducted for the 2005 SEIR to supplement information provided in the 1998 EIS/EIR and to verify the presence or absence of any new hazardous materials sites. The Approved Project found no identified hazardous materials sites near the Proposed Project site. A current review of available databases maintained by the California Environmental Protection Agency and the State Water Resources Control Board did not identify known hazardous materials sites within or adjacent to the Project site. An asbestos-cement (AC) pipeline owned by Cal Am is located within the Project site along the north bank of Florin Creek.

Discussion

a-d) **Less-than-Significant with Mitigation.** The Proposed Project would be within the same footprint of those areas analyzed in the Approved Project with regards to unidentified

hazardous materials. The Project site is surrounded by urban development that was previously open undeveloped land likely used for agriculture. 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. The Project would include the removal and disposal of an AC pipeline by CalAm in accordance with state regulations. California health and safety regulations require specific measures to be taken to prevent the release of asbestos during removal and abetment procedures, including the following:

- Comply with SMAQMD Rule 902 requiring the contractor to notify SMAQMD of any regulated demolition activity. Rule 902 contains specific requirements, including:
    - names and addresses of operations and persons responsible;
    - description and location of the structure to be demolished/altered including size, age and prior use, and the approximate amount of friable asbestos;
    - scheduled starting and completion dates of demolition or abatement;
    - nature of planned work and methods to be employed;
    - procedures to be employed to meet SMAQMD requirements; and
    - the name and location of the waste disposal site to be used.
- Cal/OSHA must be notified 10 days prior to initiating construction and demolition activities of the asbestos abatement activities.
- Asbestos containing materials that are friable or dusty must be transported and disposed of at an appropriate facility. The contractor and hauler of the material are required to file a Hazardous Waste Manifest detailing the hauling of the material from the site and the disposal of it.

Although unlikely, Project excavation activities could result in the discovery of previously unidentified hazardous materials (e.g., underground storage tank) from previous land uses. The Proposed Project would have a less-than-significant impact with the following mitigation measures.

> **Mitigation Measure HAZ-1:** Prior to construction, a site specific health and safety plan shall be prepared by a qualified health and safety professional. The plan shall include measures to reduce the risk for worker exposure and contamination during construction. A worker awareness program shall be developed and implemented to educate the workers on worker safety measures, other provisions of the health and safety plan, and the correct procedures if exposure or contamination occurs. The health and safety plan will include appropriate coordination with treatment plant and other city and county health and safety personnel.

Mitigation Measure HAZ-2: The health and safety plan will include a plan for the discovery of unidentified hazardous substances. The plan shall include appropriate testing, remediation, and worker safety measures. This plan will be coordinated with appropriate local health and safety personnel.

Mitigation Measure HAZ-3: The health and safety plan shall include procedures that would be implemented in case of an emergency. The health and safety plan shall include appropriate coordination with city and county health and safety personnel.

e-f) **No Impact.** 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 this airport and because the Proposed Project does not include any structures of significant height there would be no impact related to aircraft related safety hazards for people working in the Project area or hazard to airport operations.

g) **Less-than-Significant.** The Project would not result in construction vehicles blocking emergency thoroughfares in the vicinity as Project construction would be limited to within the Florin Creek ROW, the construction staging area would be located directly adjacent to Florin Creek, and roads adjacent to the Project site would not be used for storage of or parking for construction equipment or vehicles and impacts would be less than significant.

h) **No Impact.** The Project site is not located in an area classified by the California Department of Forestry and Fire Protection (CDF) as a wildland area (CDF, 2007 and CDF, 2008). Further, the Project would not erect permanent structures that are flammable and the creek would be maintained to reduce vegetation in the channel and banks and there would be no impact.

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.

3.9 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

As the objective of the Proposed Project is to improve local flood protection by increasing the capacity of Florin Creek, it would not increase risks associated with flooding, or place housing within a 100-year floodplain. Since much of the existing channel length is currently concrete-lined, the proposed improvements would add little in terms of new impervious surfaces. General descriptions of the environmental and regulatory setting regarding hydrology and water quality were provided in the Approved Project.

Discussion

a,c,f) **Less-than-Significant**. Construction of the Project would occur during the dry season, between May and October, when flows in Florin Creek are generally low and consist mainly of urban return flows. Channel excavation and the construction of drop structures and box culverts would require the diversion and dewatering of the creek channel. Instream construction could temporarily increase turbidity, sediment deposition, and water temperatures in downstream locations.

However, contamination of surface water and/or channel soils could result from construction activities within the affected waterways. Accidental spillage of oil, grease, fuels, hydraulic fluids, or related pollutants could occur during vehicle refueling, operation, and maintenance. Improper handling, storage, or disposal of fuels and materials or improper cleaning of machinery close to or within the waterways could cause surface water quality degradation if these liquids are washed into the adjacent waterbody. Operation of the Project would include infrequent maintenance activities for landscaping and vegetation control along the banks of the channel using standard landscaping equipment, such as lawnmowers, that require minimal fuel.

Even though soil on the Project site is characterized as having a low erosion potential, sediment 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, 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) would be acquired prior to initiation 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 would proper storage and handling areas to prevent and contain spilling of fuel, oil, and other potential pollutants, and physical BMPs to prevent soil from entering runoff in the creek (e.g., straw wattles, etc.). Therefore, impacts would be less than significant.

b) **Less-than-Significant**. The Proposed Project would not install new wells. However, it is recognized that localized and temporary lowering of the water table in locations where channel excavation could occur. Construction activities would not substantially change existing channel soil permeability and construction would occur during the dry season when there are minimal flows in Florin Creek. As a result, there would be little or no change in groundwater recharge or depletion of groundwater sources used for other beneficial uses in the long-term. Therefore, the impact to groundwater resources is considered less-than-significant.

d,e) **Less-than-Significant**. As previously described, the Proposed Project would increase the stormwater capacity within Florin Creek to reduce local flooding and facilitate the

prevention of flooding from the 100-year flood in the area. Further, the Project would not result in additional sources of runoff and impacts would be less than significant.

g) **No Impact.** The Project would not include or result in the construction of new housing.

h) **No impact.** The Project is a flood control project and would not impede, but increase flood conveyance.

i) **No impact.** The Project would increase the flood protection in the area and would not result in an increase in population. Further, the Project is not located near levees or a dam and there would be no impact.

j) **No Impact.** The Project is located approximately 80 miles from the Pacific Ocean and would not be affected by tsunami. Seiche occurs within enclosed water bodies, such as lakes, bays, or contained harbors. Seiche does not typically occur along rivers or creeks. Therefore, seiche is not anticipated to occur in the Project area because there are no large enclosed water bodies within or adjacent to Florin Creek between SR 99 and Franklin Boulevard. Mudflow can occur as a result of volcanic activity, or denuding of large areas of vegetation from highly erosive soils. These conditions do not occur within the project area, the Project would not result in the construction of habitable structures, and there would be no impact.

3.10 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

Based on the analysis provided in the Approved Project in conjunction with the Project, this analysis recognizes that many of the potential land use conflicts would be the result of other environmental effects, such as the generation of noise, traffic congestion, or dust generation. These topics are analyzed in detail in subsequent sections of this chapter.

Discussion

a-c) **No Impact.** Similar to the Approved Project features, the Project would be limited to the existing Florin Creek ROW. The installation of the Project would not divide an existing established community. The Proposed Project would not require any change to existing land use designations or policies. Likewise, the Proposed Project is consistent with local policies adopted to resolve chronic flood occurrences along the affected waterways. Furthermore, no habitat conservation plan or natural community plan has been adopted for the Project area.

3.11 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?	☐	☐	☐	☒

Discussion

a,b) **No Impact.** Based on information contained within the California Geological Survey's (CGS - formerly the Division of Mines and Geology) Open File Report 99-09, it was determined that no significant mineral resources are located within the Project area. Given the urban setting of the Project area and the context and location of the proposed improvements, the Proposed Project would not 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.

3.12 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 a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, 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

The Approved Project described the regional noise environment, general noise characteristics and applicable noise regulations that are still applicable to the Proposed Project. For the purposes of this analysis, temporary noise impacts during construction are considered significant if they would be substantially greater than existing ambient noise levels, would substantially interfere with affected land uses, would continue for a substantial period, or if they would affect noise-sensitive uses during nighttime noise-sensitive hours. For assessment of temporary construction noise impacts, "substantially greater" means more than 5 dBA (hourly Leq, DNL, or CNEL).

In addition, substantial vibrations from construction activities that could damage property would also be considered significant. Long-term noise and vibration impacts are not analyzed herein because the Project would not introduce new land uses that could result in significant increases in long-term noise emissions. Long-term traffic-related noise would be limited to periodic inspection and maintenance of Project facilities similar to current inspection and maintenance activities. This analysis evaluates the increased severity and/or magnitude of those impacts presented in the Approved Project based on the Proposed Project's refinements. These impacts include construction-related noise and associated vibration.

Discussion

a,c,d) **Less-than-Significant with Mitigation.** Construction activities would generally involve excavation, concrete removal, earth movement, stockpiling, wall construction, and truck

hauling. These construction activities would generate temporary and intermittent noise at and near the individual project construction sites throughout the construction period. Noise levels would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. Construction-related material haul trips would raise ambient noise levels along haul routes depending on the number of haul trips and the types of vehicles used. Noise-sensitive land uses (in this case, primarily residential uses) are located throughout the Project area, mostly within 50 to 100 feet of the stream channel where construction would occur. Sensitive receptors within 50 feet of construction activities in the Project area would be subjected to construction-related noise levels ranging from 76 dBA to 91 dBA. Because much of the construction would occur within the Florin Creek channel, some of the noise from construction equipment operation would be shielded (the line of sight between the receptor and construction activities would be blocked) from off-site receptors.

Because existing daytime noise levels are on the order of 40 to 70 dBA throughout the Project area, daytime construction work associated with the Project would significantly affect the noise environment of residences in close proximity to construction activities by increasing ambient noise levels by 5 dBA or more. While construction activities would occur when a majority of people are at work, retired persons, people who work at home, and people caring for their children in their homes could be significantly affected by noise when construction activities occur in the immediate vicinity.

In addition, construction-related material haul trips and vehicle traffic to and from construction sites would raise ambient noise levels along construction haul routes, depending on the number of haul trips made and types of vehicles used. Complete details on the specific sources for required equipment and construction materials for each project component and the destination(s) for hauling of excavated materials are not known at this time, so the exact haul routes are unknown.

During channel excavation, construction would increase vehicle travel from truck trips per day to the local roadway network. Materials imported for other project elements would not be expected to add nearly as many truck trips. Some of the haul routes used during construction would include the use of roads that pass through residential areas and/or roadways that have low traffic volumes. As such, noise from construction-related truck trips equipment could substantially raise roadside noise levels above existing levels. The addition of construction-related traffic noise could increase noise levels by 5 dBA or more along the haul route between construction within Florin Creek and areas where the existing background noise levels are low. It is important to note that construction-related noise levels would be temporary and limited to the time period between May and October.

In addition, the exposure of individual sensitive receptors to elevated noise levels would be limited to the duration of construction tasks at a particular location along Florin Creek. For example, channel excavation would advance along the length at a pace that would

result in sensitive receptors adjacent to the segment being excavated to being exposed to elevated noise levels for a matter of several days rather than the entire construction season.

Although construction noise would be temporary, as a result of the proximity of residences to construction noise sources and haul routes, sensitive receptors in the project area would experience substantial increases in noise levels (i.e., more than 5 dBA) relative to ambient conditions. These increases in noise levels in surrounding areas would be considered disruptive to residents. Therefore, construction would have a significant noise impact, albeit short-term, to nearby noise-sensitive receptors. Implementation of the mitigation measures below would reduce the severity of construction noise impacts to less-than-significant levels.

Mitigation Measure NOI-1: Construction equipment shall be outfitted and maintained with noise-reduction devices such as mufflers to minimize construction noise. All internal combustion engines shall be operated with exhaust and intake silencers.

Mitigation Measure NOI-2: To minimize noise effects on nearby residents during noise sensitive periods and to ensure consistency with the construction hourly limits set forth in the City and County of Sacramento Noise Ordinances, construction activities shall be restricted to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sundays.

Mitigation Measure NOI-3: Prior to construction at each site near residences, written notification to potentially affected residents shall be provided, identifying the type, duration, and frequency of construction activities. Notification materials shall also identify a mechanism for residents to register complaints with the County or City if construction noise levels are overly intrusive or construction occurs outside the required hours.

Mitigation Measure NOI-4: Where feasible and particularly in locations subject to prolonged construction (e.g., borrow sites or the detention basin), noise-generating construction equipment shall be shielded from nearby residences by noise-attenuating buffers such as structures or truck trailers or by placement of soil piles between the receptor and noise-generating activity.

Mitigation Measure NOI-5: Project construction contractor(s) shall locate fixed construction equipment (e.g., compressors and generators) and construction staging areas as far as possible from noise-sensitive receptors.

b) **Less-than-Significant.** The Proposed Project would involve temporary sources of localized ground borne vibration and ground borne noise from the operation of heavy equipment that could be perceptible at residences or other sensitive uses in the immediate vicinity of construction sites. The California Department of Transportation (Caltrans) research had found that extreme construction activities such as pavement breaking can potentially damage buildings at distances of less than 25 feet from the source. Building damage from pavement breaking can also occur within 50 to 100 feet from the source for historical

buildings, buildings in poor condition, or buildings previously damaged in earthquakes, as discussed in the setting. Further, ground borne vibration from construction equipment could impact sensitive receptors within 25 feet of the source (Caltrans, 2013). Project construction activities would be approximately 50 feet from residences along Florin Creek, and vibration would be reduced further to sensitive receptors.

Because most Project excavation, grading, and earth movement operations associated with the work would not result in significant and constant ground borne vibration or ground borne noise effects and the Project would include a much shorter length of sheetpile construction activities as originally planned in the Approved Project. As a result, the Proposed Project would result in substantially less vibrational impacts than was described for the Approved Project, and impacts would be less than significant.

e,f) **Less-than-Significant.** The Project is not located within a noise impact zone area of an airport. The Project does not involve the development of noise-sensitive land uses, and thus, implementation of the Project would not expose people to excessive aircraft noise.

References

Caltrans, 2013. *Transportation and Construction Vibration Guidance Manual*. September, 2013.

3.13 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?	☐	☐	☐	☒

Discussion

a-c) **No Impact.** The Proposed Project would be constructed within an urban setting with construction limited to Florin Creek. No change in existing land use would occur within the Project area that could result in increased population densities. The Proposed Project design refinements would not induce substantial population growth in an area, or displace substantial numbers of people or existing housing.

3.14 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?	☐	☐	☐	☒

Discussion

a.i-v) **No Impact.** The Proposed Project would result in no new demand for governmental services including law enforcement, fire protection, and emergency medical or educational services. Likewise, there would be no impact to current service ratios, response times, or other performance objectives from the Project design refinements. No new residential or commercial demands would be placed on current wastewater treatment facilities or existing potable water supplies. The Project would not induce the expansion of water treatment facilities nor would it exceed wastewater treatment requirements of the CVRWQCB. Furthermore, the Project would not result in any additional population growth that could increase the use of existing neighborhood and regional parks or other recreational facilities.

3.15 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?	☐	☐	☐	☒

Discussion

a,b) **No Impact.** Commitments carried over from the Approved Project would be implemented by the Project, detailed in Chapter 2, and includes improvement and repair of recreational features as part of the Project. The Project does not include construction of any new recreational facility, and would not otherwise result in the construction of any such facility. Furthermore, the Project would not cause a change in local or regional populations or recreational use patterns. Therefore no expansion of existing facilities nor demand for expanded or new facilities would occur.

3.16 Transportation and Traffic

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*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 regional and local roadway and regulatory setting for traffic was described in the Approved Project. Streets around the Project site consist primarily of major arterial roadways and local residential roadways. Within the Project site, there is one access ramp accessible at Franklin Boulevard (Blvd.) and an area along the south bank of the creek to allow for parking for some construction vehicles. The Project would extend the existing patrol road on south side of Florin Creek west of Franklin Blvd., in addition to adding an embankment west of Franklin Blvd. north of the creek to widen the existing patrol road. East of Franklin Blvd. and north of the creek, the Project would provide a temporary ROW for contractors to construct an access ramp to the creek. State Route 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 Road (Rd.), Franklin Blvd., and Center Parkway (Pkwy.). The average daily trips (ADT) for these roadways are shown in **Table 3-1**, 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 Pomegranate Avenue to Persimmon 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 3-1
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**. Based on information provided in Chapter 2 regarding number of employees and construction vehicles, the Proposed Project would not have a permanent impact on traffic or circulation. 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 Florin Creek channel, construction activities would not result in a 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 channel access ramps. The Project would result in approximately 25 employees and approximately between seven and 27 haul truck trips per day depending on the pace of construction activities. These trip levels would result in an increase in ADT of less than one percent and an increase of peak period trips of less than five percent. The Project could result in some traffic delays for vehicles traveling past the construction zones, including local bus routes or access routes to the RT Blue Line. However, impacts would be less than significant with the following mitigation measures.

Mitigation Measure TRAF-1: Traffic Control Plan (TCP). A TCP for the Proposed Project shall be prepared prior to any construction activities. The TCP shall coordinate all use of public roads with the City of Sacramento, and/or other responsible agencies. This plan would include the following:

- Construction vehicles would not be permitted to block any roadways or driveways;
- 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;
- Vehicles would be required to obey all speed limits, traffic laws, and transportation regulations;
- Construction workers would be encouraged to carpool and park in designated staging areas;
- Closure of staging areas and construction sites would be clearly fenced and delineated with appropriate closure signage; and,
- The contractor shall be required by contract to repair any roads damaged by construction, and to be inspected by the City of Sacramento.

Mitigation Measure TRAF-2: Applicable to all construction locations: 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.

Project construction activities could increase the demand for on-street parking for construction workers/inspector vehicles and trucks. Therefore, with implementation of the following mitigation measure from the Approved Project, the Proposed Project would result in less-than-significant impacts.

Mitigation Measure TRAF-3: On-street parking for construction workers would be prohibited for construction sites with more than twelve workers.

Mitigation Measure TRAF-4: Off-street parking would be identified and provided to the construction workers and their vehicles and transport trucks. Preferred parking would be located close enough to walk; however, if nearby off-street parking is not available farther off-street parking would be provided with a shuttle van to transport workers to construction sites.

c) **No Impact.** The Proposed Project would not involve aircraft, nor would the Project structures 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 or more severe impacts as a result of the intermittent and temporarily increase

potential traffic safety hazards for vehicles, bicyclists and pedestrians on public roadways compared to the Approved Project. 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 will require the implementation of the following mitigation measure from the Approved Project.

> **Mitigation Measure TRAF-5:** 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-6:** 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, 2014. Traffic Count Database website: http://www.cityofsacramento.org/transportation/traffic/list.cfm?x=1. Accessed March 2014.

3.17 Utilities and Service Systems

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*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

The general description of utilities and related regulations provided in the Approved Project are still applicable to the Proposed Project.

Discussion

a-e) **No Impact.** The Proposed Project is a flood control project that does not require the use of local utilities. Further, the Project would not result in an increase in population and, thus, would have no effect on demands on water, wastewater, fire protection and other public services.

f,g) **Less-than-Significant.** Construction of the Project would result in the disposal of approximately 14,000 cy of excavated vegetation, soil, and concrete. The excavated material and old concrete would be removed and disposed of at the Florin-Perkins landfill. This amount of material is minimal compared to the landfill capacity. In addition, the Project would comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, the Project would have a less-than-significant impact on solid waste disposal.

3.18 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 identified under Environmental Checklist Sections 3.4 (Biological Resources), 3.5 (Cultural Resources), 3.7 (Greenhouse Gas Emissions), 3.8 (Hazards and Hazardous Materials), 3.12 (Noise), and 3.16 (Transportation and Traffic), implementation of the Proposed Project could result in potentially significant impacts in these resource areas that could have the potential to degrade the quality of the environment, and impact biological and cultural resources. Implementation of mitigation measures incorporated into the Project would reduce the identified impacts to less-than-significant levels.

b) **Less-than-Significant with Mitigation.** 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 biological resources, greenhouse gas emissions, and traffic and circulation impacts have the potential to contribute to significant cumulative impacts. However, implementation of mitigation measures presented in Checklist Sections 3.4 (Biological Resources), 3.7 (Greenhouse Gas Emissions), and 3.16 (Transportation and Traffic) would reduce the Project's contribution to impacts to less-than-cumulatively considerable levels. Therefore, cumulative impacts would be less than significant.

c) **Less-than-Significant with Mitigation.** Project impacts include the potential for temporary impacts to human beings through degradation of local noise that could occur during construction. However, with implementation of mitigation measures provided in the Checklist Section 3.12 (Noise), these temporary impacts would be less than significant.

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Appendix A
Air Quality Modeling Calculations Details

ESA

Florin Creek Flood Enhancements

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	100.00	User Defined Unit	10.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Stream Bed Excavation

Construction Phase - Florin Creek Schedule

Off-road Equipment - Project Specific Information

Off-road Equipment - Project Specific

Off-road Equipment - Project Specific

Off-road Equipment - Project Specific Information

Off-road Equipment - Project Specific Data

Trips and VMT - Project Specific

Grading - Project Specific

Vehicle Trips - Project Specific Data

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	PhaseEndDate	10/31/2014	10/17/2014
tblConstructionPhase	PhaseEndDate	11/28/2014	6/27/2014
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tblConstructionPhase	PhaseStartDate	7/22/2014	5/5/2014
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tblVehicleTrips	WD_TR	0.00	1.00

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	0.2505	1.8255	1.5909	2.3900e-003	0.0469	0.1225	0.1693	0.0103	0.1177	0.1280	0.0000	214.2345	214.2345	0.0285	0.0000	214.8331
Total	**0.2505**	**1.8255**	**1.5909**	**2.3900e-003**	**0.0469**	**0.1225**	**0.1693**	**0.0103**	**0.1177**	**0.1280**	**0.0000**	**214.2345**	**214.2345**	**0.0285**	**0.0000**	**214.8331**

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	0.2505	1.8255	1.5909	2.3900e-003	0.0469	0.1225	0.1693	0.0103	0.1177	0.1280	0.0000	214.2344	214.2344	0.0285	0.0000	214.8329
Total	**0.2505**	**1.8255**	**1.5909**	**2.3900e-003**	**0.0469**	**0.1225**	**0.1693**	**0.0103**	**0.1177**	**0.1280**	**0.0000**	**214.2344**	**214.2344**	**0.0285**	**0.0000**	**214.8329**

	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**

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	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-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	0.0000
Mobile	0.0569	0.0297	0.2697	5.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	1.9000e-004	1.9000e-004	0.0000	3.6785	3.6785	7.4000e-004	0.0000	3.6940
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	**0.0571**	**0.0297**	**0.2711**	**5.0000e-005**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**3.6810**	**3.6810**	**7.5000e-004**	**0.0000**	**3.6966**

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	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-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	0.0000
Mobile	0.0569	0.0297	0.2697	5.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	1.9000e-004	1.9000e-004	0.0000	3.6785	3.6785	7.4000e-004	0.0000	3.6940
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	**0.0571**	**0.0297**	**0.2711**	**5.0000e-005**	**0.0000**	**2.0000e-004**	**2.0000e-004**	**0.0000**	**1.9000e-004**	**1.9000e-004**	**0.0000**	**3.6810**	**3.6810**	**7.5000e-004**	**0.0000**	**3.6966**

	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	Demolish Concrete	Demolition	5/5/2014	7/21/2014	5	56	
2	Build Coffer Dam	Building Construction	5/5/2014	5/16/2014	5	10	
3	Build Culverts	Building Construction	5/5/2014	10/17/2014	5	120	
4	Build Drop Structures	Building Construction	5/19/2014	6/27/2014	5	30	
5	Grading	Grading	8/5/2014	8/27/2014	5	17	Excavate Creek Bed

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

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
Demolish Concrete	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Build Coffer Dam	Other Construction Equipment	2	7.00	171	0.42
Build Coffer Dam	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Build Culverts	Generator Sets	2	8.00	84	0.74
Build Culverts	Other General Industrial Equipment	1	8.00	46	0.45
Build Culverts	Plate Compactors	2	8.00	89	0.20
Build Culverts	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Build Drop Structures	Generator Sets	2	8.00	84	0.74
Build Drop Structures	Plate Compactors	2	8.00	89	0.20
Build Drop Structures	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	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
Demolish Concrete	2	20.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Coffer Dam	4	25.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Culverts	6	25.00	0.00	500.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Drop Structures	5	25.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	1	5.00	0.00	700.00	10.00	13.00	13.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolish Concrete - 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	0.0206	0.1978	0.1357	1.7000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	16.8189	16.8189	4.9700e-003	0.0000	16.9233
Total	**0.0206**	**0.1978**	**0.1357**	**1.7000e-004**		**0.0155**	**0.0155**		**0.0143**	**0.0143**	**0.0000**	**16.8189**	**16.8189**	**4.9700e-003**	**0.0000**	**16.9233**

3.2 Demolish Concrete - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	2.3700e-003	2.8400e-003	0.0297	5.0000e-005	4.1100e-003	4.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1300e-003	0.0000	3.9500	3.9500	2.4000e-004	0.0000	3.9550
Total	**5.9200e-003**	**0.0388**	**0.0719**	**1.2000e-004**	**5.7900e-003**	**6.6000e-004**	**6.4500e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**10.7104**	**10.7104**	**3.0000e-004**	**0.0000**	**10.7167**

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	0.0206	0.1978	0.1357	1.7000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	16.8189	16.8189	4.9700e-003	0.0000	16.9232
Total	**0.0206**	**0.1978**	**0.1357**	**1.7000e-004**		**0.0155**	**0.0155**		**0.0143**	**0.0143**	**0.0000**	**16.8189**	**16.8189**	**4.9700e-003**	**0.0000**	**16.9232**

3.2 Demolish Concrete - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	2.3700e-003	2.8400e-003	0.0297	5.0000e-005	4.1100e-003	4.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1300e-003	0.0000	3.9500	3.9500	2.4000e-004	0.0000	3.9550
Total	**5.9200e-003**	**0.0388**	**0.0719**	**1.2000e-004**	**5.7900e-003**	**6.6000e-004**	**6.4500e-003**	**1.5500e-003**	**6.0000e-004**	**2.1600e-003**	**0.0000**	**10.7104**	**10.7104**	**3.0000e-004**	**0.0000**	**10.7167**

3.3 Build Coffer Dam - 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	9.5000e-003	0.1015	0.0587	8.0000e-005		6.1200e-003	6.1200e-003		5.6300e-003	5.6300e-003	0.0000	7.8017	7.8017	2.3100e-003	0.0000	7.8501
Total	**9.5000e-003**	**0.1015**	**0.0587**	**8.0000e-005**		**6.1200e-003**	**6.1200e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**7.8017**	**7.8017**	**2.3100e-003**	**0.0000**	**7.8501**

3.3 Build Coffer Dam - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	5.3000e-004	6.3000e-004	6.6200e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8817	0.8817	5.0000e-005	0.0000	0.8828
Total	**4.0800e-003**	**0.0366**	**0.0489**	**8.0000e-005**	**2.6000e-003**	**6.3000e-004**	**3.2300e-003**	**7.0000e-004**	**5.8000e-004**	**1.2800e-003**	**0.0000**	**7.6421**	**7.6421**	**1.1000e-004**	**0.0000**	**7.6445**

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	9.5000e-003	0.1015	0.0587	8.0000e-005		6.1200e-003	6.1200e-003		5.6300e-003	5.6300e-003	0.0000	7.8017	7.8017	2.3100e-003	0.0000	7.8501
Total	**9.5000e-003**	**0.1015**	**0.0587**	**8.0000e-005**		**6.1200e-003**	**6.1200e-003**		**5.6300e-003**	**5.6300e-003**	**0.0000**	**7.8017**	**7.8017**	**2.3100e-003**	**0.0000**	**7.8501**

3.3 Build Coffer Dam - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	5.3000e-004	6.3000e-004	6.6200e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8817	0.8817	5.0000e-005	0.0000	0.8828
Total	**4.0800e-003**	**0.0366**	**0.0489**	**8.0000e-005**	**2.6000e-003**	**6.3000e-004**	**3.2300e-003**	**7.0000e-004**	**5.8000e-004**	**1.2800e-003**	**0.0000**	**7.6421**	**7.6421**	**1.1000e-004**	**0.0000**	**7.6445**

3.4 Build Culverts - 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	0.1475	0.9849	0.7296	1.0700e-003		0.0771	0.0771		0.0750	0.0750	0.0000	95.0363	95.0363	0.0158	0.0000	95.3681
Total	**0.1475**	**0.9849**	**0.7296**	**1.0700e-003**		**0.0771**	**0.0771**		**0.0750**	**0.0750**	**0.0000**	**95.0363**	**95.0363**	**0.0158**	**0.0000**	**95.3681**

3.4 Build Culverts - 2014

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	8.8800e-003	0.0899	0.1057	1.8000e-004	4.2000e-003	1.5500e-003	5.7500e-003	1.1500e-003	1.4200e-003	2.5800e-003	0.0000	16.9011	16.9011	1.4000e-004	0.0000	16.9042
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	6.3500e-003	7.6000e-003	0.0795	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9300e-003	9.0000e-005	3.0200e-003	0.0000	10.5803	10.5803	6.4000e-004	0.0000	10.5938
Total	**0.0152**	**0.0975**	**0.1852**	**3.1000e-004**	**0.0152**	**1.6400e-003**	**0.0169**	**4.0800e-003**	**1.5100e-003**	**5.6000e-003**	**0.0000**	**27.4815**	**27.4815**	**7.8000e-004**	**0.0000**	**27.4980**

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	0.1475	0.9849	0.7296	1.0700e-003		0.0771	0.0771		0.0750	0.0750	0.0000	95.0362	95.0362	0.0158	0.0000	95.3680
Total	**0.1475**	**0.9849**	**0.7296**	**1.0700e-003**		**0.0771**	**0.0771**		**0.0750**	**0.0750**	**0.0000**	**95.0362**	**95.0362**	**0.0158**	**0.0000**	**95.3680**

3.4 Build Culverts - 2014

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	8.8800e-003	0.0899	0.1057	1.8000e-004	4.2000e-003	1.5500e-003	5.7500e-003	1.1500e-003	1.4200e-003	2.5800e-003	0.0000	16.9011	16.9011	1.4000e-004	0.0000	16.9042
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	6.3500e-003	7.6000e-003	0.0795	1.3000e-004	0.0110	9.0000e-005	0.0111	2.9300e-003	9.0000e-005	3.0200e-003	0.0000	10.5803	10.5803	6.4000e-004	0.0000	10.5938
Total	**0.0152**	**0.0975**	**0.1852**	**3.1000e-004**	**0.0152**	**1.6400e-003**	**0.0169**	**4.0800e-003**	**1.5100e-003**	**5.6000e-003**	**0.0000**	**27.4815**	**27.4815**	**7.8000e-004**	**0.0000**	**27.4980**

3.5 Build Drop Structures - 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	0.0286	0.2157	0.1480	2.4000e-004		0.0163	0.0163		0.0160	0.0160	0.0000	20.8982	20.8982	3.1000e-003	0.0000	20.9633
Total	**0.0286**	**0.2157**	**0.1480**	**2.4000e-004**		**0.0163**	**0.0163**		**0.0160**	**0.0160**	**0.0000**	**20.8982**	**20.8982**	**3.1000e-003**	**0.0000**	**20.9633**

3.5 Build Drop Structures - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	1.5900e-003	1.9000e-003	0.0199	3.0000e-005	2.7500e-003	2.0000e-005	2.7800e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.6451	2.6451	1.6000e-004	0.0000	2.6484
Total	**5.1400e-003**	**0.0379**	**0.0621**	**1.0000e-004**	**4.4300e-003**	**6.4000e-004**	**5.0800e-003**	**1.1900e-003**	**5.9000e-004**	**1.7800e-003**	**0.0000**	**9.4055**	**9.4055**	**2.2000e-004**	**0.0000**	**9.4101**

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	0.0286	0.2157	0.1480	2.4000e-004		0.0163	0.0163		0.0160	0.0160	0.0000	20.8981	20.8981	3.1000e-003	0.0000	20.9633
Total	**0.0286**	**0.2157**	**0.1480**	**2.4000e-004**		**0.0163**	**0.0163**		**0.0160**	**0.0160**	**0.0000**	**20.8981**	**20.8981**	**3.1000e-003**	**0.0000**	**20.9633**

3.5 Build Drop Structures - 2014

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	3.5500e-003	0.0360	0.0423	7.0000e-005	1.6800e-003	6.2000e-004	2.3000e-003	4.6000e-004	5.7000e-004	1.0300e-003	0.0000	6.7605	6.7605	6.0000e-005	0.0000	6.7617
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	1.5900e-003	1.9000e-003	0.0199	3.0000e-005	2.7500e-003	2.0000e-005	2.7800e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.6451	2.6451	1.6000e-004	0.0000	2.6484
Total	**5.1400e-003**	**0.0379**	**0.0621**	**1.0000e-004**	**4.4300e-003**	**6.4000e-004**	**5.0800e-003**	**1.1900e-003**	**5.9000e-004**	**1.7800e-003**	**0.0000**	**9.4055**	**9.4055**	**2.2000e-004**	**0.0000**	**9.4101**

3.6 Grading - 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					0.0147	0.0000	0.0147	1.6500e-003	0.0000	1.6500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1300e-003	0.0300	0.0206	3.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	2.5529	2.5529	7.5000e-004	0.0000	2.5687
Total	**3.1300e-003**	**0.0300**	**0.0206**	**3.0000e-005**	**0.0147**	**2.3600e-003**	**0.0171**	**1.6500e-003**	**2.1700e-003**	**3.8200e-003**	**0.0000**	**2.5529**	**2.5529**	**7.5000e-004**	**0.0000**	**2.5687**

3.6 Grading - 2014

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	0.0106	0.0846	0.1280	1.7000e-004	3.8300e-003	1.4200e-003	5.2500e-003	1.0500e-003	1.3100e-003	2.3600e-003	0.0000	15.5874	15.5874	1.4000e-004	0.0000	15.5902
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	1.8000e-004	2.2000e-004	2.2500e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2998	0.2998	2.0000e-005	0.0000	0.3002
Total	**0.0108**	**0.0849**	**0.1303**	**1.7000e-004**	**4.1400e-003**	**1.4200e-003**	**5.5600e-003**	**1.1300e-003**	**1.3100e-003**	**2.4500e-003**	**0.0000**	**15.8871**	**15.8871**	**1.6000e-004**	**0.0000**	**15.8904**

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					0.0147	0.0000	0.0147	1.6500e-003	0.0000	1.6500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1300e-003	0.0300	0.0206	3.0000e-005		2.3600e-003	2.3600e-003		2.1700e-003	2.1700e-003	0.0000	2.5529	2.5529	7.5000e-004	0.0000	2.5687
Total	**3.1300e-003**	**0.0300**	**0.0206**	**3.0000e-005**	**0.0147**	**2.3600e-003**	**0.0171**	**1.6500e-003**	**2.1700e-003**	**3.8200e-003**	**0.0000**	**2.5529**	**2.5529**	**7.5000e-004**	**0.0000**	**2.5687**

3.6 Grading - 2014

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	0.0106	0.0846	0.1280	1.7000e-004	3.8300e-003	1.4200e-003	5.2500e-003	1.0500e-003	1.3100e-003	2.3600e-003	0.0000	15.5874	15.5874	1.4000e-004	0.0000	15.5902
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	1.8000e-004	2.2000e-004	2.2500e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	9.0000e-005	0.0000	0.2998	0.2998	2.0000e-005	0.0000	0.3002
Total	**0.0108**	**0.0849**	**0.1303**	**1.7000e-004**	**4.1400e-003**	**1.4200e-003**	**5.5600e-003**	**1.1300e-003**	**1.3100e-003**	**2.4500e-003**	**0.0000**	**15.8871**	**15.8871**	**1.6000e-004**	**0.0000**	**15.8904**

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	0.0569	0.0297	0.2697	5.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	1.9000e-004	1.9000e-004	0.0000	3.6785	3.6785	7.4000e-004	0.0000	3.6940
Unmitigated	0.0569	0.0297	0.2697	5.0000e-005	0.0000	2.0000e-004	2.0000e-004	0.0000	1.9000e-004	1.9000e-004	0.0000	3.6785	3.6785	7.4000e-004	0.0000	3.6940

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	100.00	100.00	100.00		
Total	100.00	100.00	100.00		

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
User Defined Recreational	10.00	5.00	6.50	25.00	25.00	50.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504217	0.068068	0.177511	0.150009	0.045572	0.006451	0.019525	0.014983	0.002306	0.002359	0.006212	0.000585	0.002203

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					
User Defined Recreational	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					
User Defined Recreational	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			
User Defined Recreational	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			
User Defined Recreational	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	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-003
Unmitigated	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-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	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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-003
Total	**1.3000e-004**	**1.0000e-005**	**1.3200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6300e-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	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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3200e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6300e-003
Total	**1.3000e-004**	**1.0000e-005**	**1.3200e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6300e-003**

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			
User Defined Recreational	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			
User Defined Recreational	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			
User Defined Recreational	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			
User Defined Recreational	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 Flood Enhancements

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	100.00	User Defined Unit	10.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	3			**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 - Stream Bed Excavation

Construction Phase - Florin Creek Schedule

Off-road Equipment - Project Specific Information

Off-road Equipment - Project Specific

Off-road Equipment - Project Specific

Off-road Equipment - Project Specific Information

Off-road Equipment - Project Specific Data

Trips and VMT - Project Specific

Grading - Project Specific

Vehicle Trips - Project Specific Data

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	10.00
tblConstructionPhase	NumDays	230.00	120.00
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	20.00	56.00
tblConstructionPhase	NumDays	20.00	17.00
tblConstructionPhase	PhaseEndDate	8/4/2014	5/16/2014
tblConstructionPhase	PhaseEndDate	10/31/2014	10/17/2014
tblConstructionPhase	PhaseEndDate	11/28/2014	6/27/2014
tblConstructionPhase	PhaseEndDate	7/22/2014	8/27/2014
tblConstructionPhase	PhaseStartDate	7/22/2014	5/5/2014
tblConstructionPhase	PhaseStartDate	5/17/2014	5/5/2014
tblConstructionPhase	PhaseStartDate	10/18/2014	5/19/2014
tblConstructionPhase	PhaseStartDate	6/28/2014	8/5/2014
tblGrading	MaterialExported	0.00	14,000.00
tblLandUse	LotAcreage	0.00	10.00

tblOffRoadEquipment	HorsePower	87.00	46.00
tblOffRoadEquipment	HorsePower	8.00	89.00
tblOffRoadEquipment	HorsePower	8.00	89.00
tblOffRoadEquipment	LoadFactor	0.34	0.45
tblOffRoadEquipment	LoadFactor	0.43	0.20
tblOffRoadEquipment	LoadFactor	0.43	0.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Build Coffer Dam
tblOffRoadEquipment	PhaseName		Build Culverts
tblOffRoadEquipment	PhaseName		Build Culverts
tblOffRoadEquipment	PhaseName		Demolish Concrete
tblProjectCharacteristics	OperationalYear	2014	2015
tblTripsAndVMT	HaulingTripLength	20.00	13.00
tblTripsAndVMT	HaulingTripNumber	0.00	200.00
tblTripsAndVMT	HaulingTripNumber	0.00	200.00
tblTripsAndVMT	HaulingTripNumber	0.00	500.00
tblTripsAndVMT	HaulingTripNumber	0.00	200.00
tblTripsAndVMT	HaulingTripNumber	0.00	700.00
tblTripsAndVMT	VendorTripLength	6.50	13.00

tblTripsAndVMT	WorkerTripNumber	5.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	0.00	25.00
tblTripsAndVMT	WorkerTripNumber	3.00	5.00
tblVehicleTrips	CC_TTP	0.00	25.00
tblVehicleTrips	CNW_TTP	0.00	50.00
tblVehicleTrips	CW_TTP	0.00	25.00
tblVehicleTrips	ST_TR	0.00	1.00
tblVehicleTrips	SU_TR	0.00	1.00
tblVehicleTrips	WD_TR	0.00	1.00

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	6.3545	53.4721	43.9838	0.0673	2.4947	3.2406	4.2541	0.4016	3.0487	3.3216	0.0000	6,799.2797	6,799.2797	1.0448	0.0000	6,821.2200
Total	**6.3545**	**53.4721**	**43.9838**	**0.0673**	**2.4947**	**3.2406**	**4.2541**	**0.4016**	**3.0487**	**3.3216**	**0.0000**	**6,799.2797**	**6,799.2797**	**1.0448**	**0.0000**	**6,821.2200**

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	6.3545	53.4721	43.9838	0.0673	2.4947	3.2406	4.2541	0.4016	3.0487	3.3216	0.0000	6,799.2796	6,799.2796	1.0448	0.0000	6,821.2200
Total	**6.3545**	**53.4721**	**43.9838**	**0.0673**	**2.4947**	**3.2406**	**4.2541**	**0.4016**	**3.0487**	**3.3216**	**0.0000**	**6,799.2796**	**6,799.2796**	**1.0448**	**0.0000**	**6,821.2200**

	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**

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	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232
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	0.3599	0.1570	1.1639	2.6000e-004	0.0000	1.0700e-003	1.0700e-003	0.0000	9.7000e-004	9.7000e-004		22.5951	22.5951	4.4600e-003		22.6887
Total	**0.3609**	**0.1571**	**1.1745**	**2.6000e-004**	**0.0000**	**1.1100e-003**	**1.1100e-003**	**0.0000**	**1.0100e-003**	**1.0100e-003**		**22.6170**	**22.6170**	**4.5200e-003**	**0.0000**	**22.7119**

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	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232
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	0.3599	0.1570	1.1639	2.6000e-004	0.0000	1.0700e-003	1.0700e-003	0.0000	9.7000e-004	9.7000e-004		22.5951	22.5951	4.4600e-003		22.6887
Total	**0.3609**	**0.1571**	**1.1745**	**2.6000e-004**	**0.0000**	**1.1100e-003**	**1.1100e-003**	**0.0000**	**1.0100e-003**	**1.0100e-003**		**22.6170**	**22.6170**	**4.5200e-003**	**0.0000**	**22.7119**

	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	Demolish Concrete	Demolition	5/5/2014	7/21/2014	5	56	
2	Build Coffer Dam	Building Construction	5/5/2014	5/16/2014	5	10	
3	Build Culverts	Building Construction	5/5/2014	10/17/2014	5	120	
4	Build Drop Structures	Building Construction	5/19/2014	6/27/2014	5	30	
5	Grading	Grading	8/5/2014	8/27/2014	5	17	Excavate Creek Bed

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 25

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
Demolish Concrete	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Build Coffer Dam	Other Construction Equipment	2	7.00	171	0.42
Build Coffer Dam	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Build Culverts	Generator Sets	2	8.00	84	0.74
Build Culverts	Other General Industrial Equipment	1	8.00	46	0.45
Build Culverts	Plate Compactors	2	8.00	89	0.20
Build Culverts	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Build Drop Structures	Generator Sets	2	8.00	84	0.74
Build Drop Structures	Plate Compactors	2	8.00	89	0.20
Build Drop Structures	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	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
Demolish Concrete	2	20.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Coffer Dam	4	25.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Culverts	6	25.00	0.00	500.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Build Drop Structures	5	25.00	0.00	200.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	1	5.00	0.00	700.00	10.00	13.00	13.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolish Concrete - 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	0.7370	7.0652	4.8452	6.2400e-003		0.5550	0.5550		0.5106	0.5106		662.1301	662.1301	0.1957		666.2391
Total	**0.7370**	**7.0652**	**4.8452**	**6.2400e-003**		**0.5550**	**0.5550**		**0.5106**	**0.5106**		**662.1301**	**662.1301**	**0.1957**		**666.2391**

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	0.1168	1.2060	1.4156	2.6000e-003	0.0619	0.0221	0.0840	0.0169	0.0203	0.0372		266.4171	266.4171	2.2700e-003		266.4647
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	0.1003	0.0911	1.2118	1.9500e-003	0.1521	1.2600e-003	0.1534	0.0404	1.1500e-003	0.0415		172.0031	172.0031	9.4200e-003		172.2009
Total	**0.2171**	**1.2971**	**2.6273**	**4.5500e-003**	**0.2141**	**0.0233**	**0.2374**	**0.0573**	**0.0214**	**0.0787**		**438.4202**	**438.4202**	**0.0117**		**438.6657**

3.2 Demolish Concrete - 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	0.7370	7.0652	4.8452	6.2400e-003		0.5550	0.5550		0.5106	0.5106	0.0000	662.1301	662.1301	0.1957		666.2391
Total	**0.7370**	**7.0652**	**4.8452**	**6.2400e-003**		**0.5550**	**0.5550**		**0.5106**	**0.5106**	**0.0000**	**662.1301**	**662.1301**	**0.1957**		**666.2391**

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	0.1168	1.2060	1.4156	2.6000e-003	0.0619	0.0221	0.0840	0.0169	0.0203	0.0372		266.4171	266.4171	2.2700e-003		266.4647
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	0.1003	0.0911	1.2118	1.9500e-003	0.1521	1.2600e-003	0.1534	0.0404	1.1500e-003	0.0415		172.0031	172.0031	9.4200e-003		172.2009
Total	**0.2171**	**1.2971**	**2.6273**	**4.5500e-003**	**0.2141**	**0.0233**	**0.2374**	**0.0573**	**0.0214**	**0.0787**		**438.4202**	**438.4202**	**0.0117**		**438.6657**

3.3 Build Coffer Dam - 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	1.9007	20.3066	11.7435	0.0162		1.2243	1.2243		1.1263	1.1263		1,719.9728	1,719.9728	0.5083		1,730.6465
Total	**1.9007**	**20.3066**	**11.7435**	**0.0162**		**1.2243**	**1.2243**		**1.1263**	**1.1263**		**1,719.9728**	**1,719.9728**	**0.5083**		**1,730.6465**

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	0.6541	6.7535	7.9271	0.0146	0.3468	0.1236	0.4704	0.0949	0.1136	0.2085		1,491.9357	1,491.9357	0.0127		1,492.2025
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.7794**	**6.8674**	**9.4418**	**0.0170**	**0.5370**	**0.1252**	**0.6622**	**0.1453**	**0.1150**	**0.2603**		**1,706.9396**	**1,706.9396**	**0.0245**		**1,707.4537**

3.3 Build Coffer Dam - 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	1.9007	20.3066	11.7435	0.0162		1.2243	1.2243		1.1263	1.1263	0.0000	1,719.9728	1,719.9728	0.5083		1,730.6465
Total	**1.9007**	**20.3066**	**11.7435**	**0.0162**		**1.2243**	**1.2243**		**1.1263**	**1.1263**	**0.0000**	**1,719.9728**	**1,719.9728**	**0.5083**		**1,730.6465**

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	0.6541	6.7535	7.9271	0.0146	0.3468	0.1236	0.4704	0.0949	0.1136	0.2085		1,491.9357	1,491.9357	0.0127		1,492.2025
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.7794**	**6.8674**	**9.4418**	**0.0170**	**0.5370**	**0.1252**	**0.6622**	**0.1453**	**0.1150**	**0.2603**		**1,706.9396**	**1,706.9396**	**0.0245**		**1,707.4537**

3.4 Build Culverts - 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	2.4586	16.4150	12.1598	0.0179		1.2855	1.2855		1.2502	1.2502		1,745.9930	1,745.9930	0.2903		1,752.0884
Total	**2.4586**	**16.4150**	**12.1598**	**0.0179**		**1.2855**	**1.2855**		**1.2502**	**1.2502**		**1,745.9930**	**1,745.9930**	**0.2903**		**1,752.0884**

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	0.1363	1.4070	1.6515	3.0400e-003	0.0723	0.0258	0.0980	0.0198	0.0237	0.0434		310.8199	310.8199	2.6500e-003		310.8755
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.2616**	**1.5209**	**3.1662**	**5.4700e-003**	**0.2624**	**0.0273**	**0.2898**	**0.0702**	**0.0251**	**0.0953**		**525.8238**	**525.8238**	**0.0144**		**526.1267**

3.4 Build Culverts - 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	2.4586	16.4150	12.1598	0.0179		1.2855	1.2855		1.2502	1.2502	0.0000	1,745.9930	1,745.9930	0.2903		1,752.0884
Total	**2.4586**	**16.4150**	**12.1598**	**0.0179**		**1.2855**	**1.2855**		**1.2502**	**1.2502**	**0.0000**	**1,745.9930**	**1,745.9930**	**0.2903**		**1,752.0884**

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	0.1363	1.4070	1.6515	3.0400e-003	0.0723	0.0258	0.0980	0.0198	0.0237	0.0434		310.8199	310.8199	2.6500e-003		310.8755
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.2616**	**1.5209**	**3.1662**	**5.4700e-003**	**0.2624**	**0.0273**	**0.2898**	**0.0702**	**0.0251**	**0.0953**		**525.8238**	**525.8238**	**0.0144**		**526.1267**

3.5 Build Drop Structures - 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	1.9033	14.3765	9.8642	0.0159		1.0870	1.0870		1.0676	1.0676		1,535.7511	1,535.7511	0.2281		1,540.5417
Total	**1.9033**	**14.3765**	**9.8642**	**0.0159**		**1.0870**	**1.0870**		**1.0676**	**1.0676**		**1,535.7511**	**1,535.7511**	**0.2281**		**1,540.5417**

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	0.2180	2.2512	2.6424	4.8600e-003	0.1156	0.0412	0.1568	0.0316	0.0379	0.0695		497.3119	497.3119	4.2300e-003		497.4008
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.3434**	**2.3650**	**4.1571**	**7.2900e-003**	**0.3058**	**0.0428**	**0.3486**	**0.0821**	**0.0393**	**0.1214**		**712.3158**	**712.3158**	**0.0160**		**712.6520**

3.5 Build Drop Structures - 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	1.9033	14.3765	9.8642	0.0159		1.0870	1.0870		1.0676	1.0676	0.0000	1,535.7511	1,535.7511	0.2281		1,540.5417
Total	**1.9033**	**14.3765**	**9.8642**	**0.0159**		**1.0870**	**1.0870**		**1.0676**	**1.0676**	**0.0000**	**1,535.7511**	**1,535.7511**	**0.2281**		**1,540.5417**

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	0.2180	2.2512	2.6424	4.8600e-003	0.1156	0.0412	0.1568	0.0316	0.0379	0.0695		497.3119	497.3119	4.2300e-003		497.4008
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	0.1253	0.1139	1.5147	2.4300e-003	0.1902	1.5800e-003	0.1918	0.0505	1.4400e-003	0.0519		215.0039	215.0039	0.0118		215.2512
Total	**0.3434**	**2.3650**	**4.1571**	**7.2900e-003**	**0.3058**	**0.0428**	**0.3486**	**0.0821**	**0.0393**	**0.1214**		**712.3158**	**712.3158**	**0.0160**		**712.6520**

3.6 Grading - 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					1.7299	0.0000	1.7299	0.1942	0.0000	0.1942			0.0000			0.0000
Off-Road	0.3685	3.5326	2.4226	3.1200e-003		0.2775	0.2775		0.2553	0.2553		331.0651	331.0651	0.0978		333.1196
Total	**0.3685**	**3.5326**	**2.4226**	**3.1200e-003**	**1.7299**	**0.2775**	**2.0074**	**0.1942**	**0.2553**	**0.4495**		**331.0651**	**331.0651**	**0.0978**		**333.1196**

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	1.1297	9.3682	13.9393	0.0198	0.4644	0.1671	0.6315	0.1271	0.1535	0.2806		2,024.5354	2,024.5354	0.0178		2,024.9083
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	0.0251	0.0228	0.3029	4.9000e-004	0.0380	3.2000e-004	0.0384	0.0101	2.9000e-004	0.0104		43.0008	43.0008	2.3500e-003		43.0502
Total	**1.1548**	**9.3910**	**14.2423**	**0.0203**	**0.5024**	**0.1674**	**0.6699**	**0.1372**	**0.1538**	**0.2910**		**2,067.5361**	**2,067.5361**	**0.0201**		**2,067.9586**

3.6 Grading - 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					1.7299	0.0000	1.7299	0.1942	0.0000	0.1942			0.0000			0.0000
Off-Road	0.3685	3.5326	2.4226	3.1200e-003		0.2775	0.2775		0.2553	0.2553	0.0000	331.0651	331.0651	0.0978		333.1196
Total	**0.3685**	**3.5326**	**2.4226**	**3.1200e-003**	**1.7299**	**0.2775**	**2.0074**	**0.1942**	**0.2553**	**0.4495**	**0.0000**	**331.0651**	**331.0651**	**0.0978**		**333.1196**

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	1.1297	9.3682	13.9393	0.0198	0.4644	0.1671	0.6315	0.1271	0.1535	0.2806		2,024.5354	2,024.5354	0.0178		2,024.9083
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	0.0251	0.0228	0.3029	4.9000e-004	0.0380	3.2000e-004	0.0384	0.0101	2.9000e-004	0.0104		43.0008	43.0008	2.3500e-003		43.0502
Total	**1.1548**	**9.3910**	**14.2423**	**0.0203**	**0.5024**	**0.1674**	**0.6699**	**0.1372**	**0.1538**	**0.2910**		**2,067.5361**	**2,067.5361**	**0.0201**		**2,067.9586**

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	0.3599	0.1570	1.1639	2.6000e-004	0.0000	1.0700e-003	1.0700e-003	0.0000	9.7000e-004	9.7000e-004		22.5951	22.5951	4.4600e-003		22.6887
Unmitigated	0.3599	0.1570	1.1639	2.6000e-004	0.0000	1.0700e-003	1.0700e-003	0.0000	9.7000e-004	9.7000e-004		22.5951	22.5951	4.4600e-003		22.6887

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	100.00	100.00	100.00		
Total	100.00	100.00	100.00		

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
User Defined Recreational	10.00	5.00	6.50	25.00	25.00	50.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504217	0.068068	0.177511	0.150009	0.045572	0.006451	0.019525	0.014983	0.002306	0.002359	0.006212	0.000585	0.002203

4.4 Fleet Mix

Historical Energy Use: N

5.0 Energy Detail

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					
User Defined Recreational	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					
User Defined Recreational	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	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232
Unmitigated	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232
Total	**1.0400e-003**	**1.0000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0232**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0400e-003	1.0000e-004	0.0106	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0232
Total	**1.0400e-003**	**1.0000e-004**	**0.0106**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0232**

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