Draft Environmental Impact Report

April 2018

Prepared for:
City of Sacramento
Community Development Department
Environmental Planning Services

Prepared by:
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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

The City of Sacramento (City) proposes to construct the McKinley Water Vault (Water Vault) Project (proposed Project), a below-ground wastewater storage facility and associated facilities, to reduce outflows and flooding in the combined sewer system during storm events.

The California Environmental Quality Act (CEQA) requires public agencies to identify, disclose, and consider the potential environmental impacts of proposed discretionary actions that an agency is considering for approval. A project that may have a significant impact on the environment cannot be approved unless the Lead Agency makes the approval contingent upon the implementation of mitigation measures that would reduce or avoid that impact to the extent feasible. When a project may have significant environmental impacts, the Lead Agency must prepare an environmental impact report (EIR) before it considers whether to approve the project.

ES.2 PROPOSED PROJECT

The City’s Department of Utilities (DOU) operates a complex combined sewer stormwater system which serves over 200,000 residents in downtown Sacramento, River Park, Land Park, Curtis Park, Oak Park, and East Sacramento neighborhoods. The combined sewer system conveys stormwater runoff and wastewater within the same pipe network to the wastewater treatment facilities for treatment and safe discharge. This type of system offers many benefits to the community and surrounding river systems. For example, the combined system provides treatment which removes contaminants such as oils and heavy metals from stormwater that could run-off directly into nearby rivers and creeks. When left untreated, these contaminants can pose health and ecological risks.

The combined system also comes with its challenges. A system that has the capacity to treat fluctuating sewer flows as well as irregular storm flows requires flexibility and strategic planning. Regulatory mechanisms like the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permit establishes level of service standards and permit requirements that the City’s system must meet. Planning efforts like the City’s Combined Sewer System Improvement Plan (CSSIP) and subsequent updates provide a mechanism for strategic planning to identify capital improvement projects that ensure the combined system functions as designed, complies with its permit conditions, and accommodates sewer and storm flows alike under typical conditions.

The 2015, the CSSIP Update identified the Water Vault proposed Project as one of the improvement projects that would alleviate stresses on the combined sewer system capacity by providing offline storage that would be utilized only when the system approaches maximum capacity during storm events.
Figure ES.2-1 Project Vicinity shows the setting of the proposed Project area in the Sacramento region. Nearby regional features include Interstate Business 80 to the west and north, the American River to the north and east, and Highway 50 to the South. The proposed Project is located in East Sacramento in McKinley Park between Alhambra Boulevard, McKinley Boulevard, 33rd Street, and H Street. Additional construction activities associated with the construction of the proposed Project may also require underground construction in 33rd Street and Park Way, which are adjacent to the Park.
ES.3 PROJECT NEED AND OBJECTIVES

ES.3.1 Project Purpose

The purpose of the proposed Project is to improve the health and safety of the residents of Sacramento by reducing flooding and outflows in the combined sewer system, while also meeting the requirements of the City’s NPDES permit. The proposed Project would increase the capacity of the combined sewer system, which would in turn protect the residents from property damage by reducing flooding and outflows. See Figure ES.3-1 for existing 10-year storm flooding within the McKinley Park area as modeled under the 2015 Alhambra Technical Memorandum which is included in the Basis of Design Report developed for the proposed Project.

Figure ES.3-1 Existing 10-Year Storm Flooding
**ES.3.2 Project Objectives**

CEQA requires that an EIR contain a “statement of the objectives sought by the proposed project.” Under CEQA, “[a] clearly written statement of objectives will help the Lead Agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations. The statement of objectives should include the underlying fundamental purpose of the project” (State of California (State) CEQA Guidelines section 15124[b]).

Objectives for the proposed Project:

- Reduce or eliminate outflows during a 10-year storm event that can be considered a possible threat to public health;
- Comply with the requirements of the United States Environmental Protection Agency’s (USEPA) “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the National Pollutant Discharge Elimination System Permit, and the Clean Water Act;
- Comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements);
- Reduce East Sacramento neighborhood street flooding and outflow problems where it is economically feasible to do so;
- Achieve adequate response to a 10-year storm event throughout the combined sewer system;
- Design and construct new facilities to reduce exposure to flooding and sewer outflows in the Combined Sewer System, while integrating the new facilities into efficient system operations; and
- Minimize disruption of the use of City parks, streets and neighborhoods during construction.
ES.4 PROPOSED PROJECT DETAILS

The proposed Project consists of construction and operation of the offline storage facility, inlet and outlet pipes, weir structure, flow control valves, odor control, electrical controls, and other necessary appurtenant facilities that would reduce flooding and outflows during 10-year storm events and would reduce flooding and outflows during larger storm events. The proposed Project components are shown on Figure ES.4-1 Project Footprint. The proposed Project component includes:

- A maximum constructed 300-feet wide by 350-feet long offline storage facility with a 700,000 to 1,000,000-cubic foot capacity to be operated during large storm events
- Inlet and outlet pipes connecting the offline storage facility to the existing combined sewer system that surrounds McKinley Park
- Below-ground fully-encased effluent pump station to facilitate operation of the offline storage facility
- Cabinets housing electrical and control equipment located adjacent to the offline storage facility near the baseball back stop
- A below-ground odor control facility to capture and treat odors associated with the Water Vault
- Relocation of existing sanitary sewer and buried electrical lines traversing the storage site
- Park restoration and potential park enhancements

ES.5 AGENCY ROLES AND RESPONSIBILITIES

The City is the lead agency, as defined by the CEQA, for this Draft EIR, and has the principal responsibility for ensuring that the requirements of CEQA have been met. After the EIR public review process is complete, the City Council is the party responsible for certifying that the EIR adequately evaluates the environmental impacts of the Project. The City Council has the authority to approve, approve with modifications, or reject the Project.
ES.6 PROPOSED ALTERNATIVES

The focus and definition of the alternatives evaluated in this Draft EIR are governed by the “rule of reason,” in accordance with section 15126.6(f) of the CEQA Guidelines. That is, the range of alternatives presented in this Draft EIR must permit a reasoned choice by the City of Sacramento (City). The CEQA Guidelines (section 15126.6) require that an EIR evaluate at least one “No-Project Alternative,” evaluate a reasonable range of alternatives to the project, identify alternatives that were considered during the scoping process but were eliminated from detailed consideration, and identify the “environmentally superior alternative.”

After consideration of a broad range of proposed alternatives, four alternatives to the proposed Project were selected for consideration in the Draft EIR: The No Project Alternative, Offline Storage Facility at Sutter Middle School, Offline Storage Facility at Stanford Park, and Offline Storage Facility at Sutter Middle School and Stanford Park. The proposed selected alternatives are summarized below.

ES.6.1 Proposed Project Alternatives

ES.6.1.1 No Project Alternative

Operations of the City’s existing combined sewer system would continue, similar to current operations. Improvements to the combined sewer system would continue in a manner consistent with the 2015 City’s 2015 CSSIP Update, subject to funding requirements. Improvements would not include increased capacity, separation or storage projects that would significantly reduce flooding or combined sewer outflows that are targeted by the proposed vault.

If the proposed Project is not approved, progress to reduce wet-weather combined sewer outflows in this area will be limited. The City would be in jeopardy of failing to satisfy the level of service goals established by the City and incorporated by the Regional Water Quality Control Board (RWQCB) and issued NPDES permit. Additionally, the City will not make progress on overflows as identified in the EPA’s Combined Sewer Overflow Control Policy.

Non-compliance with the NPDES permit would leave the City susceptible to lawsuits, fines, and, possibly, a Cease and Desist order. A Cease and Desist order, similar to the one received in 1990, could require the City to stop all development activities until the order is removed.
ES.6.1.2 Offline Storage Facility at Sutter Middle School Alternative

This alternative includes a new approximately 150 feet by 270 feet long (with a maximum storage capacity of 1,000,000-cubic feet) offline storage facility at Sutter Middle School. Sutter Middle School is located at 3150 I Street. It borders Alhambra Boulevard on the west and J Street on the south. The offline storage facility would be sited in the soccer field along J Street.

This alternative would reduce flooding along Alhambra Boulevard, and provide an overall reduction in flooding in East Sacramento, but minimal flood reduction in the McKinley Park area as compared to the proposed Project. This alternative would require the complete closure of the soccer field and most of the basketball courts for two to two and a half years at Sutter Middle School. A temporary chain link fence would separate the construction site from school operations, but equipment would need access along the sides of the excavation inside the fence. Vertical shoring would be required due to the limited room. Dewatering of groundwater would be needed to keep the excavation dry. In addition, a diversion would be built on the 57-inch combined sewer main in Alhambra Boulevard near the school. Construction would be constricted due to the school schedule; therefore, this alternative would take longer to construct than the proposed Project resulting in additional disruption to City streets and neighborhoods.

ES.6.1.3 Offline Storage Facility at Stanford Park Alternative

This alternative includes a new approximately 235 feet by 235 feet (with a maximum storage capacity of 1,000,000-cubic feet) offline storage facility at Stanford Park. Stanford Park is located in Midtown Sacramento at 205 27th Street and is bordered by C Street to the south, B Street to the north, 27th Street to the west and 28th Street to the east. Current uses of the park include a soccer field and a baseball field.

This alternative would have significantly less impact on flooding reduction in East Sacramento than the proposed Project. This alternative would require the complete closure of Stanford Park for two to two and a half years. Due to the limited size of Stanford Park and the surrounding area, the contractor operations would be restricted and slow construction. In order to reduce flooding in the low areas in East Sacramento around McKinley Park a large diameter sewer at least five-feet in diameter, would need to be constructed from 33rd Street and McKinley Boulevard to the Park. This sewer would be approximately 3,600 feet long and would need to be sited in McKinley Boulevard, E Street and 28th Street. Due to the length, it would need to be very deep to provide gravity flow all the way to Stanford Park. Therefore, this alternative would take longer to construct than the proposed Project, resulting in more disruption to City streets and neighborhoods.

ES.6.1.4 Offline Storage Facility at Sutter Middle School and Stanford Park Alternative

This alternative is similar to the Offline Storage Facility at Sutter School and the Offline Storage Facility at Stanford Park alternatives as described above. Instead of having all the storage volume at one site or the other, the storage volume would be equitably split between the two sites and therefore be smaller in size than described in the alternatives above. Due to the smaller offline storage facilities, this would provide additional area for construction staging and access.
This alternative would provide less flood protection in East Sacramento than the proposed Project. Placing an offline storage facility at Stanford Park provides minimal flood protection (as described above) so it would not reduce East Sacramento neighborhood street flooding and outflow problems as compared to the proposed Project. In addition, the offline storage facility at Sutter Middle School would have a reduced storage volume (due to the reduced size) under this alternative.

This alternative would also have more disruption to City streets and neighborhoods than the proposed Project because two sites would be under construction.

**ES.7 AREAS OF CONTROVERSY**

The City issued a Notice of Preparation (NOP) for this EIR on June 7, 2017 in compliance with CEQA and the State CEQA Guidelines (see Appendix A of this Draft EIR). The City provided the NOP to local, state and federal agencies, organizations, and individuals that requested receipt of the City’s public notices. The NOP was circulated for comment for 30 days, ending on July 7, 2017.

During the NOP comment period, a public scoping meeting was held in Sacramento on June 19, 2017. The purpose of the scoping meeting was to solicit public comment and to provide information to the public, including the description of the project and the project objectives. The public and various government agencies have identified areas of controversy that pertain to the issues addressed by the proposed Project. General topics raised included: biological resources, air quality, climate change, water quality, recreation, visual resources, noise, traffic, cultural, archaeological, and Native American resources as well as general permitting concerns. Specific topics raised included:

- Cumulative impacts;
- Rose Garden and Clunie Community Center impacts;
- Dust control;
- Odor; and
- Alternatives.

**ES.8 ISSUES TO BE RESOLVED**

The discussion of environmental impacts, mitigation measures, and project alternatives as evaluated in detail in this Draft EIR constitutes the identification of issues to be resolved as required for compliance with CEQA Guidelines Section 15123(b)(2). In addition, a summary of Environmental Impacts and Mitigation Measures is provided in Table ES.10-1.
ES.9 NEXT STEPS FOR THE EIR

This Draft EIR will be circulated and made available to local, state, and federal agencies and to organizations and individuals who may want to review and comment on the adequacy of the analysis included in this Draft EIR. The period for public review and comment is established in the Notice of Availability, which is filed with the Sacramento County Clerk and posted on the Community Development Department web site at


During the public review period, written comments should be mailed/emailed, to:

Scott Johnson, Associate Planner,
City of Sacramento Community Development Department,
300 Richards Boulevard, Third Floor, Sacramento, CA 95811
Phone (916) 808-5842 or
e-mail to: srijohnson@cityofsacramento.org

The Draft EIR is available for review at the address above. The Draft EIR is also available at the locations included in Appendix A, as well as on the City’s website listed above.

Please write “McKinley Water Vault Project EIR” in the subject line. For comments by agencies and organizations, please include the name of a contact person for your agency or organization. All comments received, including names and addresses, will become part of the official administrative record and may be available to the public.

ES.10 SUMMARY OF POTENTIAL IMPACTS AND PROPOSED MITIGATION

CEQA requires that the environmental analysis contained in the Draft EIR also include a summary of the proposed Project and its consequences, including an identification of each potentially significant effect of the proposed Project, the level of effect the project and alternative may have as well as any proposed mitigation measures (MMs). A full discussion of each of the proposed mitigation measures is found in Chapter 3.0. Table ES.10-1 also includes a summary of the potential impacts of the proposed Project.
### Table ES.10-1 Summary of Potential Impacts and Mitigation Measures

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<td>LTS</td>
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<td>NI</td>
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<tr>
<td><strong>AES-4</strong>: Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</td>
<td>LTS/M</td>
<td>• MM AES-3: Use of best management Practices to minimize lighting impacts from construction and operation</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>3.2 Air Quality</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AIR-1</strong>: Potential to conflict with or obstruct implementation of the applicable air quality plan.</td>
<td>LTS/M</td>
<td>• MM AIR-1: Prepare a construction emission and dust control plan</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>AIR-2</strong>: Potential to violate an air quality standard or contribute substantially to an existing or projected air quality violation.</td>
<td>LTS/M</td>
<td>• MM AIR-1: Prepare a construction emission and dust control plan</td>
<td>LTS</td>
</tr>
<tr>
<td><strong>AIR-3</strong>: Potential to result in a cumulatively considerable net increase of any criteria pollutant for which the project is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</td>
<td>LTS</td>
<td>• None Required</td>
<td></td>
</tr>
</tbody>
</table>
### 3.3 Biological Resources

| BIO-1: Potential to have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or regulated by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. | LTS/M | • MM BIO-1: Avoid and protect maternal and roosting bats  
• MM BIO-2: Avoid disturbance of nesting special-status and non-special status migratory birds and raptors | LTS |
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-2: Potential to 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 Wildlife or U.S. Fish and Wildlife Service.</td>
<td>NI</td>
<td>• None Required</td>
<td></td>
</tr>
<tr>
<td>BIO-3: Potential to 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.</td>
<td>LTS</td>
<td>• None Required</td>
<td></td>
</tr>
<tr>
<td>BIO-4: Potential to 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.</td>
<td>LTS/M</td>
<td>• MM BIO-2: Avoid disturbance of nesting special-status and non-special status migratory birds and raptors</td>
<td>LTS</td>
</tr>
<tr>
<td>BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy; ordinance conflicting with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.</td>
<td>LTS/M</td>
<td>• MM BIO-3: Avoid and minimize impacts to tree species</td>
<td>LTS</td>
</tr>
</tbody>
</table>

### 3.4 Cultural and Tribal Resources

| CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5. | LTS | • None Required |  |
## MCKINLEY WATER VAULT PROJECT

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| CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5. | LTS/M | • MM CUL-1: Proper handling of inadvertent discovery of cultural and paleontological resources  
• MM CUL-2: Worker awareness training | LTS |
| --- | --- | --- | --- |
| CUL-3: Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | LTS/M | • MM CUL-1: Proper handling of inadvertent discovery of cultural and paleontological resources  
• MM CUL-2: Worker awareness training | LTS |
| CUL-4: Potential to disturb human remains, including those interred outside of formal cemeteries. | LTS/M | • MM CUL-3: Proper handling of inadvertent discovery of human remains | LTS |
| CUL-5: Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. | LTS/M | • MM CUL-1: Proper handling of inadvertent discovery of cultural and paleontological resources  
• MM CUL-2: Worker awareness training | LTS |

### Geology and Soils

<table>
<thead>
<tr>
<th>GEO-1: Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</th>
<th>LTS</th>
<th>• None Required</th>
</tr>
</thead>
</table>
| • 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 as defined by the Division of Mines and Geology Special Publication 42 or strong seismic ground shaking;  
• Seismic-related ground failure, including liquefaction; or  
• Landslides. | LTS | None Required |
### GEO-2: Potential to result in substantial soil erosion or the loss of topsoil.

| LTS/M | MM GEO-1: Prepare and erosion control prevention plan in accordance with city standards | LTS |

### GEO-3: Potential to 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.

| LTS | None Required |

### GEO-4: Potential to 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.

| LTS/M | MM GEO-2: Conduct a site-specific geotechnical investigation | LTS |

### GEO-5: Potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.

| NI | None Required |

#### 3.6 Greenhouse Gasses

**GHG-1:** Potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

| LTS | None Required |

**GHG-2:** Potential to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

| LTS | None Required |

#### 3.7 Hazards and Hazardous Materials

**HAZ-1:** Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

| LTS | None Required |

**HAZ-2:** Potential to 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.

| LTS/M | MM HYD-1: Spill prevention and contingency plan | MM HAZ-1: Proper handling and disposal of asbestos containing materials | LTS |

**HAZ-3:** Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

| LTS/M | MM AIR-1: Prepare a construction emission and dust control plan | LTS |
### HAZ-4: Potential to 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.

| NI | • None Required |

### HAZ-5: Potential to be 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.

| NI | • None Required |

### HAZ-6: Potential to be within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

| LTS | • None Required |

### HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

| LTS/M | • MM TRANS-1: Prepare and implement a traffic control plan |

### HAZ-8: Potential to 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.

| LTS | • None Required |

### HYD-1: Potential to violate any water quality standards or waste discharge requirements.

| LTS/M | • MM HYD-1: Spill prevention and contingency plan |

### HYD-2: Potential to 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).

| LTS | • None Required |
**HYD-3:** Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

<table>
<thead>
<tr>
<th>LTS/M</th>
<th>• MM GEO-1: Prepare and erosion control prevention plan in accordance with city standards</th>
</tr>
</thead>
</table>

**HYD-4:** Potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

<table>
<thead>
<tr>
<th>LTS</th>
<th>• None Required</th>
</tr>
</thead>
</table>

**HYD-5:** Potential to otherwise substantially degrade water quality.

<table>
<thead>
<tr>
<th>LTS/M</th>
<th>• MM HYD-1: Spill prevention and contingency plan • MM GEO-1: Prepare and erosion control prevention plan in accordance with city standards</th>
</tr>
</thead>
</table>

**HYD-6:** Potential to 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.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
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</thead>
</table>

**HYD-7:** Potential to place within a 100-year flood hazard area structures which would impede or redirect flood flows.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
</tr>
</thead>
</table>

**HYD-8:** Potential to 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.

<table>
<thead>
<tr>
<th>LTS</th>
<th>• None Required</th>
</tr>
</thead>
</table>

**HYD-9:** Potential to cause inundation by seiche, tsunami, or mudflow.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
</tr>
</thead>
</table>

### 3.9 Land Use and Planning

**LU-1:** Potential to physically divide an established community.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
</tr>
</thead>
</table>

**LU-2:** Potential to 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.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
</tr>
</thead>
</table>

**LU-3:** Potential to conflict with any applicable habitat conservation plan or natural community conservation plan.

<table>
<thead>
<tr>
<th>NI</th>
<th>• None Required</th>
</tr>
</thead>
</table>
### 3.10 Noise and Vibration

<table>
<thead>
<tr>
<th>NOS-1: Potential to expose persons to or generation of sustained noise levels above ambient noise conditions that could result in interference with speech or sleep.</th>
<th>LTS</th>
<th>None Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOS-2: Potential to expose persons to or generate excessive groundborne vibration or groundborne noise levels.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>NOS-3: Potential to cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>NOS-4: Potential to cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>NOS-5: Potential 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, or within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels.</td>
<td>NI</td>
<td>None Required</td>
</tr>
</tbody>
</table>

### 3.11 Public Services

| PUB-1: Potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection; Police protection; Schools; Parks; or Other public facilities. | LTS/M | MM TRANS-2: Inform the public and emergency service agencies of lane closures and detours | LTS |

| | | | |
### 3.12 Recreation

<table>
<thead>
<tr>
<th>REC-1:</th>
<th>Potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS</td>
<td>• None Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REC-2:</th>
<th>Potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS</td>
<td>• None Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REC-3:</th>
<th>Potential to result in substantial interference with park recreation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS</td>
<td>• None Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REC-4:</th>
<th>Potential to result in permanent displacement of existing recreational facilities or substantial permanent decrease in access to existing recreational facilities or opportunities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS</td>
<td>• None Required</td>
</tr>
</tbody>
</table>

### 3.13 Transportation and Traffic

<table>
<thead>
<tr>
<th>TRANS-1:</th>
<th>Potential to 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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS/M</td>
<td>• MM TRANS-1: Prepare and implement a traffic control plan</td>
</tr>
<tr>
<td></td>
<td>• MM TRANS-2: Inform the public and emergency service agencies of lane closures and detours</td>
</tr>
<tr>
<td>LTS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRANS-2:</th>
<th>Potential to 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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS/M</td>
<td>• MM TRANS-1: Prepare and implement a traffic control plan</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>LTS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRANS-3:</th>
<th>Potential to 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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NI</td>
<td>• None Required</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRANS-4:</th>
<th>Potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTS/M</td>
<td>• MM TRANS-1: Prepare and implement a traffic control plan</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>LTS</td>
<td></td>
</tr>
</tbody>
</table>
### Trans-McKinley Water Vault Project

#### Executive Summary
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<table>
<thead>
<tr>
<th>TRANS-5: Potential to result in inadequate emergency access.</th>
<th>LTS/M</th>
<th>MM TRANS-2: Inform the public and emergency service agencies of lane closures and detours</th>
<th>LTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANS-6: Potential to conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</td>
<td>LTS/M</td>
<td>MM TRANS-1: Prepare and implement a traffic control plan</td>
<td>LTS</td>
</tr>
</tbody>
</table>

#### 3.14 Utilities and Services Systems

<table>
<thead>
<tr>
<th>UTL-1: Potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.</th>
<th>NI</th>
<th>None Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTL-2: Potential to 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.</td>
<td>NI</td>
<td>None Required</td>
</tr>
<tr>
<td>UTL-3: Potential to require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>UTL-4: Potential to have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>UTL-5: Potential to result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>UTL-6: Potential to be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
<tr>
<td>UTL-7: Potential to comply with federal, state, and local statutes and regulations related to solid waste.</td>
<td>LTS</td>
<td>None Required</td>
</tr>
</tbody>
</table>

*Notes: Proposed Level of Significance Designation:
- NI = No Impact
- LTS = Less than Significant Impact
- LTS/M = Less than Significant Impact with Mitigation
- S/U = Significant and Unavoidable*
## Abbreviations

<table>
<thead>
<tr>
<th>Term/Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>Assembly Bill</td>
</tr>
<tr>
<td>ADMP</td>
<td>Asbestos Dust Mitigation Plan</td>
</tr>
<tr>
<td>ATCM</td>
<td>Airborne Toxic Control Measure</td>
</tr>
<tr>
<td>AFY</td>
<td>Acre Foot Per Year</td>
</tr>
<tr>
<td>AIA</td>
<td>Airport Influence Area</td>
</tr>
<tr>
<td>ALUCP</td>
<td>Airport Land Use Compatibility Plan</td>
</tr>
<tr>
<td>amsl</td>
<td>Above Mean Sea Level</td>
</tr>
<tr>
<td>AP Act</td>
<td>Alquist-Priolo Fault Zoning Act</td>
</tr>
<tr>
<td>APN</td>
<td>Assessor’s Parcel Number</td>
</tr>
<tr>
<td>ARFCD</td>
<td>American River Flood Control District</td>
</tr>
<tr>
<td>ATCM</td>
<td>Airborne Toxic Control Measure</td>
</tr>
<tr>
<td>BAAQMD</td>
<td>Bay Area Air Quality District</td>
</tr>
<tr>
<td>BACT</td>
<td>Best Available Control Technology</td>
</tr>
<tr>
<td>BAGEPA</td>
<td>Bald Eagle and Golden Eagle Protection Act</td>
</tr>
<tr>
<td>BAU</td>
<td>Business As Usual</td>
</tr>
<tr>
<td>BCI</td>
<td>Bat Conservation International</td>
</tr>
<tr>
<td>BFFP</td>
<td>Board of Forestry and Fire Protection</td>
</tr>
<tr>
<td>BLM</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>BMPs</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>bmsl</td>
<td>Below Mean Sea Level</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CAAQS</td>
<td>California Ambient Air Quality Standards</td>
</tr>
<tr>
<td>CAL ARP</td>
<td>California Accidental Release Prevention</td>
</tr>
<tr>
<td>CalEEMod</td>
<td>California Emissions Estimate Model</td>
</tr>
<tr>
<td>CAL EMA</td>
<td>California Emergency Management Agency</td>
</tr>
<tr>
<td>CAL EPA</td>
<td>California Environmental Protection Agency</td>
</tr>
<tr>
<td>CAL FIRE</td>
<td>California Department of Forestry and Fire Protection</td>
</tr>
<tr>
<td>CalRecycle</td>
<td>California Department of Resource Recycling and Recovery</td>
</tr>
<tr>
<td>Caltrans</td>
<td>California Department of Transportation</td>
</tr>
<tr>
<td>CAP</td>
<td>Climate Action Plan</td>
</tr>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>CBC</td>
<td>California Building Code</td>
</tr>
<tr>
<td>CC</td>
<td>City Code</td>
</tr>
<tr>
<td>CAAA</td>
<td>California Clean Air Act</td>
</tr>
<tr>
<td>CCAR</td>
<td>California Climate Action Registry</td>
</tr>
<tr>
<td>CCR</td>
<td>California Code of Regulations</td>
</tr>
<tr>
<td>CCTV</td>
<td>Closed Circuit Television</td>
</tr>
<tr>
<td>CDFG</td>
<td>California Department of Fish and Game</td>
</tr>
<tr>
<td>CDFW</td>
<td>California Department of Fish and Wildlife</td>
</tr>
<tr>
<td>CESAA</td>
<td>California Endangered Species Act</td>
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<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CGC</td>
<td>California Government Code</td>
</tr>
<tr>
<td>CGS</td>
<td>California Geological Survey</td>
</tr>
<tr>
<td>CH4</td>
<td>Methane</td>
</tr>
<tr>
<td>CHRSIS</td>
<td>California Historical Resources Information System</td>
</tr>
<tr>
<td>CHSC</td>
<td>California Health and Safety Code</td>
</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Project</td>
</tr>
<tr>
<td>City</td>
<td>City of Sacramento</td>
</tr>
<tr>
<td>City Tree Permit</td>
<td>City of Sacramento Tree Permit</td>
</tr>
<tr>
<td>CLI</td>
<td>California Legislative Information</td>
</tr>
<tr>
<td>CNDDDB</td>
<td>California Natural Diversity Database</td>
</tr>
<tr>
<td>CNEL</td>
<td>Community Noise Equivalent Level</td>
</tr>
<tr>
<td>CNPS</td>
<td>California Native Plant Society</td>
</tr>
<tr>
<td>CO2</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>CO2e</td>
<td>CO2 Equivalent</td>
</tr>
<tr>
<td>County</td>
<td>County of Sacramento</td>
</tr>
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## Glossary

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<thead>
<tr>
<th>Term/Abbreviation</th>
<th>Definition</th>
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<tr>
<td>Area-wide</td>
<td>Effect occurs throughout the project area.</td>
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<td>Direct impacts</td>
<td>Impacts that are caused by an aspect of an alternative or an alternative, and occur at the same time and place.</td>
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<td>Environment</td>
<td>The physical conditions that exist in the area and that would be affected by a proposed project, including: land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved is where significant direct or indirect impacts would occur as a result of the proposed Project. The environment includes both natural and man-made conditions.</td>
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<td>Impacts</td>
<td>Impacts analyzed under CEQA must be related to a physical change. Impacts can include direct impacts and indirect impacts.</td>
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<td>Indirect impacts</td>
<td>Impacts that are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.</td>
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<tr>
<td>Less than Significant Impact</td>
<td>An impact that is adverse but that does not exceed the defined thresholds of significance. Less than significant impacts do not require mitigation.</td>
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<tr>
<td>Less than Significant with Mitigation</td>
<td>An impact that exceeds the defined thresholds of significance and would or could cause a substantial adverse change in the environment, but through implementation of the appropriate required mitigation measures would result in an impact that would be Less than Significant with Mitigation.</td>
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<tr>
<td>Localized</td>
<td>Effect occurs at a specific site or within a relatively small area.</td>
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<td>Long-term</td>
<td>Effects caused during the construction phase that remains substantially longer than the construction phase (greater than one-year). All impacts related to the operational phase will be long-term impacts, as they would occur over the life of the project, but may be intermittent.</td>
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<tr>
<td>Mitigation</td>
<td>Measures that are reasonably implemented to avoid or substantially reduce the proposed Project’s significant environmental impacts by: Avoiding the impact altogether by not taking a certain action or parts of an action; Minimizing impacts by limiting the degree or magnitude of the action and its implementation; Rectifying the impact by repairing, rehabilitating, or restoring the affected environment; Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or Compensating for the impact by replacing or providing substitute resource or environments.</td>
</tr>
<tr>
<td>Term/Abbreviation</td>
<td>Definition</td>
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<tr>
<td>National</td>
<td>Effects occur on a multi-state or national basis, or to resources with national importance, as identified in laws, regulations, policies.</td>
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<td>Project</td>
<td>The whole of an action that has the potential for resulting in a physical change in the environment, directly or indirectly.</td>
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<tr>
<td>Project area</td>
<td>Effects occur throughout the larger area surrounding the Project Site</td>
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<tr>
<td>Project site</td>
<td>Effects occur within the project’s immediate area (from project components and construction activities)</td>
</tr>
<tr>
<td>Regional</td>
<td>Effects occur on a regional basis (e.g. Sacramento County)</td>
</tr>
<tr>
<td>Short-term</td>
<td>Effects that occur during the construction phase or for less than a year</td>
</tr>
<tr>
<td>Significant Impact</td>
<td>A substantial, or potentially substantial, adverse change on the environment in any of the physical conditions in the area affected by the proposed Project, including: land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. An economic or social change by itself is not considered a significant impact on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

1.1 PROJECT INTRODUCTION

The City of Sacramento (City) proposes to construct the McKinley Water Vault (Water Vault) Project (proposed Project), a below-ground wastewater storage facility and associated facilities, to reduce outflows and flooding in the combined sewer system.

The downtown area of the City utilizes a combined sewer system to convey wastewater. This is a type of sewer system in which domestic sewage, commercial and industrial sewage, and surface runoff are conveyed in a single pipeline to a wastewater treatment facility. When flows in the combined sewers become too great due to stormwater runoff, combined sewage may outflow from the pipes onto public streets and private property.

Construction of the City’s sewage collection system started well over 100-years ago in the downtown area. Pipes were constructed to convey sewage and storm water combined in the same pipe to a pump station where it was pumped directly to the Sacramento River. The construction of combined sewer and stormwater facilities, while constructed to standards effective at the time of construction, was discontinued in 1946, but the City continues with ongoing improvements designed to protect water quality. In 1954, the City completed construction of a primary treatment plant (the Combined Wastewater Treatment Plant or CWWTP) which treated the combined flows.

The City and County of Sacramento worked to develop a regional wastewater plan. Construction of the regional wastewater treatment system began in the mid-1970’s. The regional approach to wastewater treatment has been effective in protecting water quality and responding to the mandates of the State Water Resources Control Board (State Water Board or SWRCB).

The City owns and operates the combined sewer system, which consists of both pipelines and facilities. The facilities include the City’s Combined Wastewater Treatment Plant, pumping stations, Pioneer Reservoir, and in-line and off-line storage facilities. The collection system consists of trunks, interceptors, reliefs, force mains, laterals, and other pipelines (Figure 1.1-1 Project Vicinity and Figure 1.1-2 City of Sacramento Sewer System Overview).

Approximately 11,300-acres within the City contribute flows to the combined sewer system. This total includes approximately 7,500-acres within the Downtown, East Sacramento, and Land Park communities, which contribute sanitary sewage and storm drainage flows to the system. Approximately 3,700-acres within the East Sacramento and River Park communities, as well as California State University, Sacramento, contribute sanitary sewer flows only, and the remaining 100-acres contribute storm drainage flows only.
City of Sacramento Sewer System Overview

Figure 1.1-2

Legend
- SCCSD Interceptors
- Force Mains
- Interceptor Mains >33"
- Trunk Mains between 12" and 33"
- Collector Mains between 8" and <12"
- Collector Mains <8"
- Separated Sewer System
- Combined Sewer System
- SASD Service Area

Adapted from:
2013-2014 City of Sacramento Sewer System Management Plan
The combined sewer system drains from east to west to two pump stations: Pump Station 1/1A and Pump Station 2/2A. The two pump stations pump flows to treatment facilities. Based on the City’s contract with The Sacramento Regional County Sanitation District (Regional San), the City can convey a maximum of 60-million gallons per day (mgd) to the Regional San Wastewater Treatment Plant (WWTP) where it is treated and discharged to the Sacramento River. When the flow rate exceeds 60-mgd, the excess flows are pumped to the City’s CWWTP and Pioneer Reservoir to provide treatment, storage, and disinfection for an additional 380-mgd flow.

The Water Vault would address additional storage requirements identified by system operations, regulatory requirements, and strategic planning efforts. The proposed location is within McKinley Park in East Sacramento as shown on Figure 1.1-1. The proposed Project would help alleviate combined sewer system outflows (where water comes out of the manholes) and flooding (where water cannot get into the storm drains) during large storm events. Specifically, the proposed Project would consist of the construction and operation of a below-ground offline storage system including inlet and outlet pipes, odor control mechanisms, a pump station, and a secured above-ground structure for electrical control equipment. If feasible, the Project would also include installation of an above-ground restroom facility adjoined to the electrical control structure.

1.2 THE ENVIRONMENTAL REVIEW PROCESS

The California Environmental Quality Act (CEQA) requires public agencies to identify, disclose, and consider the potential environmental impacts of proposed discretionary actions that an agency is considering for approval. A project that may have a significant impact on the environment cannot be approved unless the Lead Agency makes the approval contingent upon the implementation of mitigation measures that would reduce or avoid that impact to the extent feasible. When a project may have significant environmental impacts, the Lead Agency must prepare an environmental impact report (EIR) before it considers whether to approve the project.

The City, as the Lead Agency for the proposed Project, has prepared this Draft EIR for public review and comment. As discussed below, the Draft EIR will be available for review and comment by public agencies and the public for a period of 45-days. Prior to considering the proposed Project, the City would prepare a Final EIR that includes the comments received on the Draft EIR, written responses to those comments, a list of the commenters, and any revisions being made to the Draft EIR that are initiated by the City or in response to the comments. The Final EIR would be considered in combination with the Draft EIR by the City Council when taking action on the proposed Project.

1.2.1 CEQA Purpose and Authority

This Draft EIR has been prepared pursuant to the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects (California Public Resources Code [PRC] 21000 et seq.).
The purpose of this Draft EIR is to analyze the environmental impacts of the proposed Project while establishing ways to reduce or avoid these potential impacts. Additionally, this Draft EIR identifies alternatives to the proposed Project that would meet most of the project objectives while reducing one or more potential environmental impacts.

CEQA requires that each public agency mitigate or avoid the significant environmental effects of projects it approves or implements whenever feasible. An EIR is an informational document used in State, regional, and local planning and decision-making processes to disclose potential environmental effects. The purpose of this EIR is not to recommend approval or denial of a project. However, the public agency’s decision whether to approve or to deny the proposed Project must take into consideration the information provided by the EIR.

When considering the proposed Project, the public agency may approve the project even if it would result in significant and unavoidable environmental impacts so long as the EIR discloses the project's environmental effects, including:

- Effects that cannot be avoided;
- Growth inducing effects;
- Effects found not to be significant; and
- Cumulative impacts.

CEQA provides that a lead agency that intends to approve a project with significant and unavoidable effects must identify the "[s]pecific economic, legal, social, technological, or other considerations..." that make infeasible particular mitigation measures or alternatives identified in the EIR. In addition, the lead agency in such a case must identify the benefits of the project that outweigh the significant effects on the environment (Statement of Overriding Considerations.)

Accordingly, this Draft EIR describes and evaluates the potential impacts associated with the proposed Project. Additional resource-specific studies, such as air quality and cultural analyses, have been prepared for this Draft EIR to provide detailed information about the proposed Project’s potential impacts on the environment. The mitigation measures identified in this Draft EIR are designed to include enough detail and specificity to ensure that they would be effectively carried out to reduce the proposed Project’s impacts.

### 1.2.2 Lead Agency Determination

As the public agency undertaking the proposed Project, the City is designated as the Lead Agency. CEQA Guidelines Section 15367 defines the Lead Agency as “...the public agency, which has the principal responsibility for carrying out or approving a project.” Other public agencies may use this document in their decision making or permit processes.

This Draft EIR was prepared in close coordination with the City by Stantec Consulting Services Inc., an environmental consultant. Prior to public review, this Draft EIR was extensively reviewed and evaluated.
by City staff and, as such, this Draft EIR reflects the independent judgment and analysis of the City as required by CEQA. A list of those involved in report preparation is provided in Chapter 6.0 of this Draft EIR.

1.2.3 Draft EIR Scoping Process

1.2.3.1 Notice of Preparation

CEQA does not require formal hearings at any stage of the environmental review process (CEQA Guidelines Section 15202[a]). However, it does encourage “wide public involvement, formal and informal, to receive and evaluate public reactions to environmental issues” (CEQA Guidelines Section 15201).

In accordance with the CEQA Guidelines, the City distributed a Notice of Preparation (NOP) of a Draft EIR for the proposed Project on June 7, 2017 and gave the public an opportunity to provide comment on the scope of the analysis that should be included in this Draft EIR. A public scoping meeting was held at the Clunie Center on June 19, 2017 and the public comment period closed on July 7, 2017. The comments received by the City on the NOP were considered in the preparation of this Draft EIR. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP, as well as any issues raised by agencies and the public in response to the NOP. The NOP and comments received during the NOP comment period are contained in Appendix A of this Draft EIR.

The City Department of Utilities (DOU) is dedicated to public and stakeholder outreach and ongoing public communications beyond what is required by CEQA for the Water Vault Project. The City continues to actively involve the community and has completed the following since Fall 2016:

- Initial Project website launch and continued site maintenance and updates: cityofsacramento.org/McKinleyWaterVault;
- Email account and phone line stakeholder inquiry responses;
- Scheduled stakeholder phone calls and in-person interviews;
- Stakeholder meeting with East Sacramento stakeholder groups, neighborhood and business associations, August 10, 2017;
- Public community meeting, September 20, 2017; and
- Social media updates via Facebook, Twitter, Nextdoor and city platforms such as CityExpress and Councilmember e-blast notifications.

1.2.3.2 Scope of the Draft EIR

The analysis included in Chapter 3.0 focuses on the specific environmental resource topics that require further evaluation to determine if they have a potential impact. Comments received during the scoping process were taken into consideration in development of this Draft EIR based on a comparison with the Appendix G checklist in the CEQA Guidelines. Resource sections identified in the NOP that received no
additional public comment and are determined to have no significant impact and are disclosed in the following paragraph. Resource areas with a potential impact identified during the NOP and scoping process are further evaluated for determination of level of significance and are summarized under the following heading 'Effects Determined To Be Potentially Significant' below and in more detail within Chapter 3.0.

Environmental Issues Determined Not To Be Significant

Pursuant to the CEQA Guidelines, the discussion of the potential effects on the physical environment can be focused on those impacts that may be significant or potentially significant. CEQA allows a Lead Agency to limit the details of discussion of the environmental effects that are not considered potentially significant (PRC Section 21100, CCR Sections 15126.2[a] and 15128). CEQA requires that the discussion of any significant effects on the environment be limited to substantial or potentially substantial adverse changes in physical conditions that exist within the affected area, as defined in PRC Section 21060.5 (Statutory definition of "environment").

Effects dismissed in an analysis as clearly insignificant and unlikely to occur need not be discussed further in the Draft EIR unless the Lead Agency subsequently receives information inconsistent with the finding (CCR Section 15143).

As part of the NOP Scoping process, it was determined that implementation of the proposed Project would result in no impact or less than significant environmental impacts (without mitigation) related to the following resources. Analysis supporting the conclusions for these resource areas is included in Appendix A as part of the NOP. The following environmental resources areas, therefore, are not discussed at further length in this Draft EIR:

**Agricultural and Forestry Resources:** The proposed Project is located in an existing neighborhood park and surrounded by residential and commercial parcels. The proposed Project is not adjacent to or located on lands that are zoned for forest land, timberlands or agricultural uses. Therefore, no impacts to agricultural and forestry resources would occur and this issue is not discussed further in this Draft EIR.

**Mineral Resources:** According to the City of Sacramento 2035 General Plan Master EIR, no significant mineral deposits have been identified at McKinley Park (City of Sacramento 2014). Additionally, the proposed Project is not located within an Aggregate Resource Area as identified by the City of Sacramento 2035 General Plan Land Use Diagram (City of Sacramento 2015). Therefore, no impacts to mineral resources would occur and this issue is not discussed further in this Draft EIR.

**Population and Housing:** In 2016, the estimated population in the City was 495,234 (U.S. Census Bureau 2017). The proposed Project would be located within public rights-of-way (under roadways) or on public land. Lands immediately adjacent to the proposed Project include existing residential subdivisions or commercial businesses. Construction and operation of the proposed Project would not require the removal of any existing homes or displace businesses or people, nor would the proposed Project result in the construction of any housing.
The proposed Project would not require any additional permanent City employees to operate the proposed Project. A maximum of 50 on-site construction workers would be temporarily employed at any one time during construction of the proposed Project, with an average of approximately 20- to 30- workers present on any given day for the 24-month duration of the Project. The employment duration of individual construction workers would vary according to construction phase and skill sets required for each Project component and would mainly be sourced from the local workforce.

Unemployment in the City is approximately 4.9 percent of its 234,100-person workforce (as of September 2017), so an estimated 11,600 people remain unemployed (California Employment Development Department [EDD] 2017). The construction workforce in the overall Metropolitan Statistical Area (City and surrounding counties) is substantial, totaling over 56,500 (also as of August 2017) (EDD 2017a). These data suggest that the region supports a robust construction workforce that also has the ability to grow in numbers while reducing local unemployment. As a result, it is not anticipated that substantial numbers of workers would relocate to the area, creating a demand for housing.

No direct or indirect impacts to population, employment, or housing would occur due to the proposed Project, and this issue will not be discussed further in the EIR.

Effects Determined To Be Potentially Significant

The NOP and Scoping process identified the following resource areas may have potential environmental impacts that require further analysis in the Draft EIR. Accordingly, the following resources areas are evaluated in this Draft EIR:

- Aesthetics (AES)
- Greenhouse Gas Emissions (GHG)
- Public Services (PUB)
- Air Quality (AIR)
- Hazards and Hazardous Materials (HAZ)
- Recreation (REC)
- Biological Resources (BIO)
- Hydrology and Water Quality (HYDRO)
- Transportation and Traffic (TRANS)
- Cultural and Tribal Cultural Resources (CULT)
- Land Use and Planning (LU)
- Utilities and Services Systems (UTL)
- Geology and Soils (GEO)
- Noise (NOISE)

1.2.4 Relationship to Other Documents

This Draft EIR incorporates by reference the environmental analysis and other information contained in the Draft and Final EIR City of Sacramento Combined Sewer System and Rehabilitation and Improvement Plan, November 1996, State Clearinghouse # 96082013 (City 1996). The full text of the City of Sacramento Combined Sewer System and Rehabilitation and Improvement Plan Draft EIR is available online at [http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx](http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx).
MCKINLEY WATER VAULT PROJECT

Introduction
April 2018

In addition, this Draft EIR incorporates by reference the Combined Sewer System Improvement Plan Update (CSSIP Update), December 2015 (City 2015). The CSSIP Update 1) refined the sanitary flow representation and the influence of the ground water table during dry weather for the existing conditions model and developed a design flow estimate for future conditions, 2) evaluated existing projects to identify opportunities to maximize their storage or conveyance capacity for the 10-year design storm and study its impact on reduced flooding on the surface, 3) refined the hydrology and hydraulic (H&H) model for a higher resolution within the six wet areas, as described in the National Pollutant Discharge Elimination System (NPDES) permit, and 4) simulated the 5-year and 10-year design storms using the revised H&H model and identified capacity deficiencies using the Innovyze Integrated Catchment Model (ICM) two-dimensional module. In addition, the CSSIP update also evaluated the CSS discharges to the Sacramento River and potential combined sewer system projects. The full text of the CSSIP update is available online at https://www.cityofsacramento.org within the McKinley Water Vault Resources page and in hardcopy at the City of City’s Community Development Department at 300 Richards Boulevard, 3rd Floor, Sacramento, CA 95811 (City of Sacramento 2015).

1.2.5 Review of the Draft EIR

Upon completion of this Draft EIR, the City will file a Notice of Completion (NOC) with the State Office of Planning and Research along with a Notice of Availability to begin the public review period (PRC, section 21161). Concurrent with the NOC, this Draft EIR will be distributed to responsible and trustee agencies, other affected agencies, and interested parties including those requesting a copy of the Draft EIR in accordance with PRC 21092(b)(3). The Notice of Availability will be posted and published in accordance with noticing requirements of CEQA Guidelines Section 15087. During the public review period, the Draft EIR will be available for review at the City’s Community Development Department, DOU and the library at the Clunie Center McKinley Library. The document will be posted on the Community Development Department website at http://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports.aspx.

Agencies, organizations, and interested parties have the opportunity to comment on this Draft EIR during the 45-day public review period. Written comments concerning the Draft EIR for the proposed Project should be directed to the City’s environmental project manager at the following address by the close of the comment period. Please include the commenter’s full name and address.

Scott Johnson, Associate Planner,
City of Sacramento Community Development Department,
300 Richards Boulevard, Third Floor, Sacramento, CA 95811
Phone (916) 808-5842
E-mail: srjohnson@cityofsacramento.org

The public comment period will be identified in the Notice of Availability, which will be available on the City’s EIR web site identified above.
1.2.5.1 Effectively Commenting on the EIR

Readers are invited to review and comment on the adequacy and completeness of this Draft EIR in describing the potential impacts of the proposed Project, the level of severity of any impacts, the mitigation measures being proposed to reduce or avoid those impacts, and the Project alternatives being considered.

In this regard, CEQA defines “significant effect on the environment” as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise and objects of historic or aesthetic significance. (CEQA Guidelines section 15382)

“Mitigation” includes actions that would avoid the impact altogether, minimize the impact, rectify by repairing, rehabilitating or restoring the impacted environment, reducing the impact over time or compensating for the impact by replacing or providing substitute resources or environments. (CEQA Guidelines section 15370)

The most effective comments are those that focus on the adequacy and completeness of the environmental analysis and that are supported by factual evidence. Comments that focus on whether the proposed Project should be approved or denied are not comments on the adequacy of this Draft EIR.

1.2.6 Final EIR

Upon completion of the public review period, the City will review the comments received and prepare written responses to all environmental issues raised and, if necessary, make revisions to the Draft EIR. Comments received, the responses to comments, and any necessary text revisions to the Draft EIR will be included as part of the Final EIR record for consideration for the proposed Project. Responses will be made available for review by the commenting agencies at least 10 days prior to any public hearing on the proposed Project, at which time the certification of the complete EIR would be considered.

The Final EIR will be considered by the City Council when taking action on the proposed Project. If the proposed Project is approved, CEQA requires the City to adopt findings describing how each of the significant impacts identified in the EIR is being mitigated. The findings will also describe the reasons why project alternatives that were analyzed in the EIR have not been adopted if the City Council chooses not to adopt a project alternative. Finally, the City will adopt a Mitigation Monitoring or Reporting Plan (MMRP) that describes how it will ensure the mitigation measures being required of the proposed Project will be carried out.

1.3 PERMITS REQUIRED

- Sacramento City Code Section 12.56 - Tree Permit Application
- Regional San construction dewatering discharge permit
- Site plan design review
- SWRCB General Construction Permit
2.0 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

The City's Department of Utilities (DOU) currently operates a combined sewer stormwater system which serves over 200,000 residents in downtown Sacramento, River Park, Land Park, Curtis Park, Oak Park, and East Sacramento neighborhoods. The combined sewer system conveys stormwater runoff and wastewater within the same pipe network to the wastewater treatment facilities for treatment and safe discharge. This type of system offers many benefits to the community and surrounding river systems. The combined system provides treatment which removes contaminants like oils and heavy metals from stormwater that could run off directly into nearby rivers and creeks. When left untreated, these contaminants can pose health and ecological risks.

The combined system, however, also comes with its challenges. A system that has the capacity to treat fluctuating sewer flows as well as irregular storm flows requires flexibility and strategic planning. Regulatory mechanisms like the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) permit establish level of service standards and permit requirements these systems must meet. Planning efforts like the City’s Combined Sewer System Improvement Plan (CSSIP) and subsequent updates provide a mechanism for strategic planning to identify capital improvement projects that ensure the combined system functions as designed and accommodates both sewer and storm flows under typical conditions.

The 2015 CSSIP Update identified the McKinley Water Vault (Water Vault) Project (proposed Project) as one of the improvement projects that would alleviate stresses on the combined sewer system capacity by providing offline storage that would be utilized when the system was starting to reach maximum capacity during storm events.

2.1.1 Project Location

Figure 1.1-1 Project Vicinity shown in Section 1.0 shows the setting of the proposed Project area in the Sacramento region. Nearby regional features include Interstate Business 80 to the west and north; the American River to the north and east, the Sacramento River to the east, and Highway 50 to the South. The proposed Project is located in East Sacramento in McKinley Park (i.e. 38.575937°, -121.461068° and APN 003-0010-002) between Alhambra Boulevard, McKinley Boulevard, 33rd Street, and H Street. Utilities associated with the construction of the proposed Project may also require underground construction in 33rd Street and Park Way, which are adjacent to the Park.

2.1.2 Project Background

In the 1980’s and early 1990’s it was recognized that the combined sewer system in Sacramento had inadequate hydraulic capacity to handle moderate to intense rain events. Localized
floodling of storm water occurs in several areas because runoff is greater than the combined sewer system capacity.

On June 22, 1990, the Central Valley Regional Water Quality Control Board (CVRWQCB) issued a Cease and Desist Order (No. 90-198) which required the City to reduce the combined sewer outflows and overflows in violation of Order No. 90-197. In the 1990’s the City conducted numerous studies and evaluations of the combined sewer system and developed the CSSIP. The CSSIP and associated EIR were approved in 1997 by City Council Resolution No. 97-123.

The long-term goal of the CSSIP is to meet the level of service goals required by the NPDES permit. The CSSIP outlined high priority improvements to the combined sewer system. Pumping capacity at Sump 1/1A and 2/2A was increased, and primary treatment was added to Pioneer Reservoir. The projects identified in the CSSIP were designed to protect the community’s health, safety, and quality of life by reducing flooding, wastewater outflows and overflows.

In 2015, the CVRWQB adopted the Waste Discharge Requirements for the City of Sacramento Combined Wastewater Collection and Treatment System (Order No. R5-2015-0045, NPDES No. CA0079111) which describe discharge prohibitions to the Sacramento River unless certain specified conditions have been met or authorizations granted; effluent limitations and discharge specifications for total suspended solids, settleable solids, and chlorine; receiving water limitations to the Sacramento River, monitoring and reporting requirements; and other standard and special provisions.

In 2015, DOU updated the 1995 CSSIP. The 2015 CSSIP Update identified and prioritized improvement projects that would help the operation of the combined sewer system meet the level of service goals identified in the CVRWQCB NPDES permit. The 2015 CCSIP Update continues to meet requirements of the Environmental Protection Agency Combined Sewer Overflow Control Policy. The proposed Project is one component of the continued improvements identified in the CCSIP Update to meet ongoing regulatory compliance requirements (see Figure 2.1-1 for some of the completed, in-progress and future CCSIP projects). Non-compliance with these regulatory conditions would expose the City to lawsuits, fines, and, potentially, a Cease and Desist order. A Cease and Desist order, similar to the one received in 1990, could require the City to stop all development activities until the order is removed.
Figure 2.1-1  CSSIP Storage Projects Overview
2.2 PROJECT PURPOSE AND OBJECTIVES

2.2.1 Project Purpose

The purpose of the proposed Project is to improve the health and safety of the residents of Sacramento by reducing flooding and outflows in the combined sewer system, while also meeting the requirements of the City’s NPDES permit. The key problem faced with a combined sewer system is that during large rain events the combination of sewer discharges (which remain relatively stable) and stormwater discharges (which rise dramatically during the rain event) overwhelm the system. This leads to "surcharge" in which the combined flows can pour out of the system at available openings. For example, past surcharges of the system have led to discharges from manholes in the McKinley Park neighborhood. The discharges consist of storm water combined with raw, untreated sewage. The proposed Project would increase the capacity of the combined sewer system, which would in turn protect the residents from health and safety risks and property damage by reducing flooding and outflows. See Figure 2.2-1 for existing 10-year storm flooding within the McKinley Park area.

![Figure 2.2-1 Existing 10-Year Storm Flooding](image)
2.2.2 Project Objectives

Project objectives:

- Reduce or eliminate outflows during the 10-year design storm that can be considered a possible threat to public health;

- Comply with the requirements of the United States Environmental Protection Agency's (USEPA) “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the National Pollutant Discharge Elimination System Permit, and the Clean Water Act;

- Comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements);

- Reduce East Sacramento neighborhood street flooding and outflow problems where it is economically feasible to do so;

- Achieve adequate response to a 10-year storm event throughout the combined sewer system;

- Design and construct new facilities to reduce exposure to flooding and sewer outflows in the Combined Sewer System, while integrating the new facilities into efficient system operations; and

- Minimize disruption of the use of City parks, streets and neighborhoods during construction.

2.3 PROJECT DETAILS

The proposed Project consists of construction and operation of the offline storage facility, inlet and outlet pipes, weir structure, flow control valves, odor control, electrical controls, and other necessary appurtenant facilities that would reduce flooding and outflows during 10-year storm events and would reduce flooding and outflows during larger storm events. The following sections are intended to provide details of the key project components to support the evaluation of potential environmental impacts in Chapter 3.0 of this EIR. The proposed Project components are shown on Figure 2.3-1 Project Footprint.
2.3.1 Offline Storage Facility

The offline storage facility has been designed to fit within the open area of the ballfield at McKinley Park to reduce the extent of impact to trees within the park. The constructed offline storage facility would include a minimum of 700,000-cubic feet of underground storage but may include up to 1,000,000-cubic feet of storage. The offline storage would only operate during large storm events and would have a constructed maximum footprint of 300-feet wide by 350-feet long. Construction of the offline storage facility may require temporary excavation beyond the footprint of the facility to allow for safety measures such as shoring and construction equipment access. However, temporary construction activities would be designed to limit activity within the drip-line of the nearby trees.

The offline storage facility would receive water from the existing combined sewer system under the jogging path along 33rd Street through an inlet pipe. A weir in the diversion structure would be set at an elevation that would only allow combined sewage to flow into the facility when flow in the combined sewer starts to exceed the crown (top) of the pipe (known as a surcharge). The Project may also include two additional diversion structures; one on the 42-inch combined sewer in McKinley Boulevard and one on the 57-inch combined sewer in McKinley Park along H Street. These two diversions would require pipelines with approximate diameters of 36-inches in 33rd Street.

As flows in the combined sewer system surrounding McKinley Park reach system capacity, the offline storage facility would become operational and would allow the flow from the combined system to flow into the offline storage facility. When storm flows subside and the combined sewer system has capacity, the flows can be gradually pumped back into the combined sewer system. The return pumps would be sized to empty the offline storage facility (pumps discussed further in Section 2.3.3 below).

2.3.2 Inlet/Outlet Pipes

The offline storage facility would be connected by inlet and outlet pipes to the existing combined sewer system that surrounds McKinley Park. Three separate inlet (diversion) pipelines are proposed to connect the combined sewer system pipelines to the offline storage facility; one from the 42-inch combined sewer system in McKinley Boulevard, one from the 42-inch combined sewer system adjacent to 33rd Street, and one from the 57-inch combined sewer in the Park along H Street. The H Street sewer and 33rd Street sewers are under the jogging path. The McKinley Boulevard sewer is in the street right of way. The inlet pipe from the diversion locations would gravity-flow into the main storage facility as shown on Figure 2.3-1. The offline storage facility would be drained into a forcemain pipeline that connects back into the existing sewer system once storms subside and capacity is available in the system. The diversion sewers would be constructed of either fiberglass reinforced polymer (FRP) or polyvinyl chloride (PVC) and the forcemain returning flow to the combined system would be either PVC or Ductile Iron Pipe (DIP).

2.3.3 Effluent Pump Station

The proposed Project would include a below-ground fully-encased effluent pump station to facilitate operation of the offline storage facility. Should a storm event require the usage of the offline storage facility, the effluent pump station would be used to return the stored combined sewage back into the 33rd
Street combined sewer once downstream capacity is available. Once in use, the pumps would operate for approximately 24-hours to fully drain the offline storage and return flows to the combined sewer system.

The pump station would have two submersible solids-handling pumps, each rated for a capacity of approximately five-mgd per pump. The pump station would require approximately 50-horsepower per pump and would be located in a pre-cast underground six-foot diameter manhole on the northside of the ball field backstop as shown of Figure 2.3-1. A ground-level manhole cover would be located above the pumps to provide access for maintenance. A shallow box next to the pumps would contain valves, a flow meter and pressure gauges.

### 2.3.4 Electrical and Control Facilities

The proposed Project requires electric power distribution and control facilities for operation of the Water Vault. The cabinets housing the electrical and control equipment would be located adjacent to the offline storage facility near the baseball field back stop as shown on Figure 2.3-1 and, if feasible, attached to a new restroom facility (as described in Section 2.3.7). The electrical and control facilities would include several components including electrical distribution and controls for pumps and odor controls. A buried cable from a Sacramento Municipal Utility District (SMUD) transformer would be needed to bring power to the Water Vault. A likely connection to a SMUD power feed is on Park Way, adjacent to the Arts Center. Architectural treatment of the facilities would be designed to match the aesthetic treatment of other buildings within the McKinley Park. The building housing the electric and control facilities would be constructed adjacent to the underground odor controls and would provide access to the underground facilities.

The electrical and control equipment would be placed in several equipment cabinets and housed in an above ground building with a maximum footprint (including the restroom facility) of 30- by 25-feet. The electrical equipment would provide power distribution to the equipment and allow for remote operation and monitoring of the Water Vault. Equipment would require routine maintenance similar to other electrical gear maintained by the City in its various facilities. The electrical controls would require the installation of an underground fiber optics conduit to the Water Vault to accommodate use of the Supervisory Control and Data Acquisition (SCADA) controls.

### 2.3.5 Odor Control

The odor control facility would include a below-ground odor control system to provide adequate capture and treatment of any odors associated with Water Vault facility operation. The system would be located adjacent to the electrical controls building and would consist of odor fans that draw air from the offline storage facility and into media vessels containing granular activated carbon (GAC) designed to absorb volatile organic compounds (VOC) in the air that generate odors. The odor control system would include ductwork for transmission of air, control dampers, and would be connected to the controls system for operation and monitoring. These features would all assist in the treatment of any potential objectionable smells and reduce the risk of odors being released from the system. Treated air would be discharged through a stack terminating above grade adjacent to or above the control building or other architectural feature.
The proposed Project would be operated to reduce the generation of odors from the offline storage facility. The Water Vault would only be operated during storm events where it would be receiving highly diluted combined sewage. The offline storage facility would be drained as soon as possible once capacity is available in the combined sewer system. Capacity in the combined sewer would be available before the dissolved oxygen in the combined sewage would be used up and before it could result in the generation of noxious odors such as hydrogen sulfide. In the unlikely event the combined sewage would need to remain in the offline storage facility long enough that noxious odors are generated, the GAC within the odor control facility would filter any noxious odors. The odor control system would operate at a reduced capacity to maintain a constant negative pressure within the tank when the offline storage facility is empty and idle, to prevent the risk of untreated air escaping.

2.3.6 Existing Utilities and Infrastructure

Some minor existing utilities are currently located within the proposed Project site. These minor utilities include a sanitary sewer line and some buried electrical lines. The sanitary sewer line collects flows from an existing restroom building located at the center of McKinley Park and ties into the existing combined sewer system along the 33rd Street right-of-way. Both sanitary sewer and buried electrical lines traversing the storage site would be relocated around the improvements.

The existing park irrigation system would be removed and replaced where it interferes with construction of the proposed Project. It would be relocated or protected in place where it feeds sprinklers irrigating grass, roses or trees. Temporary feeds would be implemented when needed if construction or operation would interfere with the water service. Sprinklers and piping along truck routes would be protected during construction and operation.

2.3.7 Park Restoration and Potential Enhancements

Park facilities damaged or impacted during construction of the proposed Project would be restored to their existing condition or in some instances enhanced based on coordination with the City Department of Parks and Recreation, public feedback, and feasibility. The following sections are intended to give a general representative overview of anticipated restoration and/or enhancements.

2.3.7.1 Park Restoration

The majority of construction activities would take place near the baseball field adjacent to 33rd street. Existing structures, such as the baseball backstop and picnic facilities, would be removed prior to the start of construction. The temporary removal and replacement of recreational facilities would be coordinated with the City Department of Parks and Recreation and take the City’s public outreach and local community groups feedback into consideration.

Horseshoe pits, the baseball field, and picnic areas within the Project footprint would be unavailable during construction and portions of the jogging path and roadways in and adjacent to 33rd Street, E Street, and Park Way would also require temporary (or intermittent) closures throughout the duration of
construction. These facilities would at a minimum be restored to their existing conditions once construction is complete.

Additional park facilities anticipated to be restored to existing conditions include:

- Replacement of the baseball field;
- Replacement of the impacted irrigation system;
- Reinstallation of picnic tables;
- Replacement of damaged pathways within the park;
- Plant trees in kind for any trees removed in accordance with City Tree Permit and Mitigation (Sections 3.1 and 3.3); and
- Replacement of damaged or disturbed grass park area.

### Potential Park Enhancements

In addition to restoring impacted facilities within McKinley Park, the City is working with stakeholders to evaluate the feasibility of enhancements that would improve existing Park facilities in accordance with the City Parks and Recreation Department Master Plan and stakeholder interests. These enhancements may include:

- A new restroom facility adjoined to the electrical control structure (within the 30- by 25-foot footprint described in Section 2.3.4);
- Regrading of the ball field to slope towards 33rd Street for improved drainage;
- Conversion of the existing baseball field into a soccer field;
- Park-wide irrigation system improvements; and
- Installation of shade structures over the picnic tables.

All visible enhancements would be designed in accordance with City architectural standards and designed to match existing facilities.

### Construction Characteristics

Various activities and components would be required for the construction of the Vault. The following sections describe construction activities associated with the proposed Project. Additionally, the City has taken public feedback into consideration and plans to continue to keep the public informed as the project continues through the construction phase. During construction, the City will inform the public about what they can expect through construction updates including the website, social media, mailings, public
meetings and special outreach to affected neighbors. The City will continue to monitor the phone line and email which are, (916) 808-7300 and mckinleywatervault@cityofsacramento.org.

2.4.1 Site Preparation

To safely prepare the Vault site for construction activities, temporary chain link fencing would be installed for the duration of vault construction to create a temporary physical barrier from the construction activities. Fencing would prevent trespassing on the construction site and protect the safety of residents, pedestrians, and park users. Fencing would be placed where required by the construction contract and would also serve to prevent the contractor from entering areas of the Park where necessary to protect Park facilities and the public.

Access routes from the surrounding streets into the Project site would be established during site preparation. Any necessary removal of grass and topsoil would be conducted during site preparation. Large trucks and other construction equipment would access the site via 33rd street and McKinley Boulevard. These access routes may require preparation of the area which may include but not limited to tree trimming, tree removal, vegetation removal, and limited park facilities removal. These site preparations would be necessary to protect existing Park facilities and provide the safety measures necessary for the proposed Project construction.

2.4.1.1 On-Site Construction Access and Staging Areas

Access and construction staging area locations are required for the Vault construction. Park access points were designed for efficiency, limiting traffic impacts, and limiting impacts to biological resources and are illustrated on Figure 2.4-1. Several potential staging areas have been identified and are also depicted on Figure 2.4-1. Staging areas were designated to avoid impacts to trees, the public and the Rose Garden and located where access routes are the shortest.

**McKinley Boulevard Access** – This route accesses the Park off McKinley Boulevard generally along the alignment of the existing driveway west of the existing tennis courts and east of the swimming pool.

**33rd Street Access** – This route accesses the Park from 33rd Street near the intersection of Park Way and 33rd Street near the existing picnic areas on the north-eastern side of the Park. Two access routes allow the contractor to maintain one way in and one way out and reduces the need to have trucks turn around on the site.
PROPOSED ALTERNATIVE 1: ACCESS VIA MCKINLEY BLVD

PROPOSED ALTERNATIVE 2: ACCESS VIA 33RD STREET

Legend

- APPROXIMATE TEMPORARY WORK AREA
- PROPOSED ACCESS ROUTE
- PROPOSED STAGING AREA

Onsite Potential Access Routes and Staging Access
The approximate area that would be reserved for contractor staging is shown in Figure 2.4-1. This area is approximately one acre in size and has been minimized to limit the impact on trees and other park facilities. The staging at the north end of the Project site corresponds with the truck traffic access routes.

2.4.1.2 Vegetation and Potential Tree Removal

Approximately 129 trees were surveyed within the proposed Project area (Figure 2.4-2 Trees Surveyed) but are generally located on the periphery of the work area and along the access paths. The proposed Project would avoid as many trees as possible; however, construction access is anticipated to require a limited amount of trimming of tree branches and/or work within the dripline of trees adjacent to construction. An Arborist Report was completed for the proposed Project to assess the trees within the proposed Project area and assist in designing for tree avoidance. The Arborist Report identified trees within the proposed Project area primarily as a mix of sycamore, redwood, cottonwood, oak, and other non-native ornamental and invasive species and is included in Appendix C. The City would comply with the provisions of the City Code relating to City trees.

2.4.1.3 Park Recreation Access

Temporary closures of park facilities such as the baseball field, picnic areas, and jogging path would be required throughout construction of the Vault. Park features including the baseball field and picnic areas would be closed throughout the duration of construction and fencing would be installed for safety concerns. Other park facilities, such as the jogging path may be able to maintain intermittent public access during various phases of construction. Where feasible, alternative routes or detours for the jogging path will be provided. Detours are anticipated to follow surrounding neighborhood streets.
Figure 2.4-2
Trees Surveyed

City of Sacramento
McKinley Water Vault Project
2.4.2 Offline Storage Construction

2.4.2.1 Dewatering

Prior to excavation, dewatering wells would be installed around the future Water Vault location to reduce groundwater intrusion during excavation. The dewatering pumps in the wells would lower the groundwater table as excavation proceeds. Groundwater management would continue until the excavation is backfilled likely requiring the use of dewatering pumps operating as needed to ensure dry conditions in the bottom of the Vault excavation sites. Pumps would be located at the bottom of the dewatering wells and are not anticipated to generate noise audible outside of the construction area. Dewatering water would be disposed of in accordance with State and Federal requirements and would likely be drained into the combined sewer system. Discharge to the combined sewer system will require a permit from Sacramento County Regional Sanitation District (Regional San).

2.4.2.2 Excavation

The excavation period would be approximately three months with as many as 1,800-cubic yards per day and a maximum of 100 truck off-site haul trips per day during peak periods. Approximately 77,000- to 105,000-cubic yards would be generated from excavation. During excavation, spoils would be loaded into dump trucks and off-hauled to an approved receiving location, expected to be in the downtown Railyards area or a storage facility within the City. Typical dump truck capacities are estimated at 18-cubic yards per truck. Trucks would operate during the construction hours identified in Section 2.4.3, below.

In order to support the excavation of the offline storage facility, shoring may need to be installed for safety purposes. The side of the excavation would be sloped back where room is available, but shoring is likely needed in some locations. Typical shoring methods include:

- Soldier pile with lagging or plates
- Driven sheet piles

Soldier piles are essentially steel H-piles driven vertically about five- to 12-feet apart. Either timber boards or steel plates (lagging) would be inserted between the soldier piles as the excavation proceeds. Driven sheet piles would be another option and would be a continuous steel sheet pile wall that would be driven or vibrated into the ground. The vibration method would generate less noise. The sheet piles interlock to form a solid wall. The installation of sheet piles or soldier pile shoring would require the driving with impact hammers or by vibration. The H-pile installation could also be predrilled with an auger to reduce or eliminate the need to drive the pile.

2.4.2.3 Installation

Construction of the offline storage facility and the below-ground odor control facility would use conventional reinforced concrete construction methods. After the excavation of the area, a reinforced mat foundation slab would be constructed as part of the bottom slab of the Water Vault facilities. Once the concrete bottom slab has been constructed the concrete walls would go up next. The reinforcing steel is
erected, wood forms installed, and the concrete would be poured. The roof of the Water Vault facilities would also be constructed with concrete.

The inlet and outlet pipe construction would be constructed concurrently with the offline storage. Three separate inlet pipelines are proposed to connect the combined sewer system with the storage facility; one from the combined sewer in McKinley Boulevard, one from the sewer adjacent to 33rd Street and one on H Street as discussed in Section 2.3.2.

The excavated area would then be backfilled in lifts (layers) to the surrounding grade and to cover the offline storage facility and other below ground structures and the surrounding pipelines. This would ensure the Water Vault facilities are not seen except for the secure above ground electrical building and minor ground-level manholes and appurtenances. The mechanical equipment including pumps and odor control fans would then be installed and wired to the electrical and control equipment in the electrical building.

Testing and startup of the Water Vault would be initiated to verify the facility is running as planned and no problems are found. During this time, the contractor would clean up the site and remove all construction equipment and materials that were needed during construction activities. A winter commissioning period would then commence over the course of six months to bring the Water Vault online and monitor the operability over a rainy, winter season.

### 2.4.2.4 Site Rehabilitation

Upon the completion of the construction phase, site restoration would occur to ensure McKinley Park is restored to its pre-construction state and any feasible park enhancements are completed. Site rehabilitation would include construction and implementation to restore the site back to (at a minimum) existing conditions.

### 2.4.3 Construction Schedule

The preliminary Project schedule incorporates mobilization, construction, testing, and completion of the proposed Project within a two-year period. The work week is anticipated to occur Monday through Friday seven am to six pm. Weekend work or extended hours may be necessary due to weather limitations or certain construction activities. Work on Saturdays, if necessary, would occur seven am to six pm. Work on Sundays, if necessary, would be limited to the hours of nine am to six pm. Construction activities would occur simultaneously where feasible.

The offline storage facility excavation and installation is the largest single activity and is estimated to occur over approximately 12 months. Table 2.4-1 depicts construction details related to the proposed Project and Figure 2.4-3 depicts an estimate of the proposed construction schedule.
Figure 2.4-3 Preliminary Construction Schedule
### Table 2.4-1 Construction Overview and Proposed Schedule

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Specific Activities</th>
<th>Location</th>
<th>Area of Impact</th>
<th>Estimated Construction Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site Preparation</strong></td>
<td>• Temporary Fence</td>
<td>• Enclosing the construction site</td>
<td>• Temporary impact to recreationalists who use the park and ball field</td>
<td>Approximately 3 months</td>
</tr>
<tr>
<td></td>
<td>• Clear and Grub Work for excavation area and staging area.</td>
<td>• Near the two access sites on McKinley Boulevard, and 33rd Street</td>
<td>• Temporary impact to the nearby residents and pedestrians on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of Groundwater Wells</td>
<td>• Every 50-feet surrounding the Water Vault site</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Offline Storage Facility and Effluent Pump Station</strong></td>
<td>• Groundwater management</td>
<td>• Under the ball fields</td>
<td>• Temporary impact to recreationalists who use the park and ball fields</td>
<td>12 months</td>
</tr>
<tr>
<td></td>
<td>• Install excavation support (sheeting and shoring)</td>
<td>• Adjacent to 33rd street</td>
<td>• Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Excavation and Bottom Gravel Pad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Concrete Bottom Slab Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Concrete Walls Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Damproof Walls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Concrete Roof Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Inlet and outlet pipes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fill offline storage facility and perform Hydrostatic Leak Test</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Backfill offline storage facility and drain tank</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### MCKINLEY WATER VAULT PROJECT

**Project Description**  
April 2018

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Specific Activities</th>
<th>Location</th>
<th>Area of Impact</th>
<th>Estimated Construction Duration</th>
</tr>
</thead>
</table>
| **Control Facilities**  | • Cast-in-place odor control concrete underground facility  
                          • Install Odor Control                                                                 | Underground adjacent to the electrical control cabinet  
                          • Behind the ball field back stop                                                                 | Temporary impact to recreationalists who use the park and ball field  
                          • Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street. | 4 months                        |
| **Post-construction**   | • Testing and Startup                                                                 | Throughout the project site including the offline storage, pump stations, electrical controls, etc. | Temporary impact to recreationalists who use the park and ball field  
                          • Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street | 3 months                        |
|                         | • Contractor Demobilization                                                          | Throughout the project site including staging areas, the Water Vault.   | Temporary impact to recreationalists who use the park and ball field  
                          • Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street | 1 month                         |
<p>|                         | • Winter Commissioning Period                                                        | Throughout the project site, but mostly                                 | No impact                                                                   | 6 months                        |</p>
<table>
<thead>
<tr>
<th>Project Component</th>
<th>Specific Activities</th>
<th>Location</th>
<th>Area of Impact</th>
<th>Estimated Construction Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Restoration and/or Enhancements</td>
<td>• Replace removed trees in accordance with City Tree Permit and Mitigation (Section 3.3)</td>
<td>Near the two access sites on McKinley Boulevard and 33rd Street</td>
<td>Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td>Intermittently for 3 months</td>
</tr>
<tr>
<td></td>
<td>• Replace irrigation impacted by construction</td>
<td>Irrigation impacted by construction</td>
<td>Impact construction area</td>
<td>McKinley Park landscape</td>
</tr>
<tr>
<td></td>
<td>• Near the two access sites on McKinley Boulevard and 33rd Street</td>
<td>Irrigation enhanced throughout the Park</td>
<td>McKinley Park landscape</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td>Recreationalists in and around the park</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Near the two access sites on McKinley Boulevard and 33rd Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replace irrigation impacted by construction</td>
<td>Irrigation impacted by construction</td>
<td>Impact construction area</td>
<td>McKinley Park landscape</td>
</tr>
<tr>
<td></td>
<td>• If feasible, improve irrigation system throughout park</td>
<td>Irrigation enhanced throughout the Park</td>
<td>McKinley Park landscape</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• If feasible, install shade structures</td>
<td>Picnic areas to the north of the Water Vault</td>
<td>Users of the group picnic areas to the north of the Water Vault</td>
<td>Intermittently for 3 months</td>
</tr>
<tr>
<td></td>
<td>• Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replace picnic areas</td>
<td>Jogging paths</td>
<td>Throughout McKinley Park and surrounding residences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• If feasible, install shade structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replacement of damaged pathways within the park</td>
<td>Jogging paths</td>
<td>Throughout McKinley Park and surrounding residences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Temporary impact to recreationalists who use the park and ball field</td>
<td>Grass area</td>
<td>Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Replacement of damaged or disturbed grass park area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Component</td>
<td>Specific Activities</td>
<td>Location</td>
<td>Area of Impact</td>
<td>Estimated Construction Duration</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>----------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>Replace the existing baseball field, OR As determined by coordination with stakeholders, install a soccer field in lieu of the baseball field</td>
<td>The existing baseball field in McKinley Park</td>
<td>Temporary impact to recreationalists who use the park and ball field</td>
<td>Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
<tr>
<td>If feasible, construct a new restroom facility adjoined to the electrical control structure</td>
<td>North of the existing baseball field Connections to existing waterline</td>
<td>Temporary impact to recreationalists who use the park and ball field</td>
<td>Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
<tr>
<td>If feasible, regrade of the ball field to slope towards 33rd Street for improved drainage</td>
<td>The baseball field in McKinley Park</td>
<td>Temporary impact to recreationalists who use the park and ball field</td>
<td>Temporary impact to the nearby residents on McKinley Boulevard, G Street, and 33rd Street</td>
<td></td>
</tr>
</tbody>
</table>
2.4.3.1 Construction Equipment

Contractor equipment could include a construction office and equipment trailers, equipment storage, and material stockpiling. Mobile construction equipment utilized for the Project would depend on the selected contractor’s planned operations, but may include the following equipment:

- Excavators
- Scrapers
- Bulldozers
- Graders
- Rollers
- Concrete trucks
- Asphalt trucks
- Pickup trucks
- Air compressors
- Welding equipment
- Pumps and Piping
- Generators
- Back-up lighting systems
- Communications and safety equipment
- Compactors
- Conveyors
- Water trucks
- Concrete pumper
- Vehicle maintenance truck
- Timber harvesting equipment
- Erosion control materials
- Front-end loaders
- Highway trucks
- Cranes
- Miscellaneous equipment customary to the mechanical and electrical crafts, and vehicles used to deliver equipment and materials

2.4.3.2 Construction-Related Traffic

Off-site highway and local road truck trips would include transport for equipment mobilization, commercially quarried materials, construction materials, pipe, excavated material disposal, and if necessary tree removal. Engineered fill would be obtained from a commercial sand and gravel operation, or other suitable and authorized sites. On-site haul trips include the transport of borrow and excavated materials, construction materials, pipe, rebar, precast concrete material, waste disposal, and any necessary tree or vegetation removal. Most impacts from construction traffic are expected during the excavation phase of construction as well as during cast in place ready mix concrete deliveries. Table 2.4-2 Construction Traffic summarizes the estimated truck trips for the major phases of the construction. Table 2.4-3 summarizes the existing traffic volumes adjacent to the Project site based on the proposed access sites (see Figure 2.4-1 above).

Average daily construction activities would require approximately 20- to 30- workers on site and four to six major pieces of equipment (e.g., crane, excavators, front end loaders or concrete pumpers). Activities requiring maximum workers and truck traffic would include excavation, backfill and concrete pours. The maximum construction traffic on any given day could be trips by up to 50- onsite workers, plus approximately 100- truck trips for the delivery of concrete or hauling away excavated material, with a total estimated daily maximum 150- vehicle trips.

Inlet and outlet pipe construction would require a crew of about eight workers and approximately 30- truck trips per day hauling away excavated material and importing gravel for the pipeline bedding and backfill. Given that pipeline construction and the offline storage facility construction could take place simultaneously, it is expected that a cumulative total of up to 150- vehicle trips could occur on any given day during construction.
Table 2.4-2  Construction Traffic

<table>
<thead>
<tr>
<th>Phase</th>
<th>Number of Days</th>
<th>Heavy Vehicles Trips per Day (MAX)</th>
<th>Commuting Worker Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoring installation</td>
<td>75</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Excavation</td>
<td>90</td>
<td>100</td>
<td>30</td>
</tr>
<tr>
<td>Concrete placement</td>
<td>210</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Backfill</td>
<td>30</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: Trips are bi-directional.

Table 2.4-3  Existing Traffic Volumes Adjacent to the Project Site

<table>
<thead>
<tr>
<th>Street</th>
<th>Average Daily Traffic (ADT) (vehicles per day)</th>
<th>AM Peak (vehicles per hour)</th>
<th>PM Peak (vehicles per hour)</th>
<th>Count Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>McKinley Boulevard at 35th Street</td>
<td>5524</td>
<td>469</td>
<td>554</td>
<td>7/25/2012</td>
</tr>
<tr>
<td>33rd Street at McKinley Boulevard</td>
<td>1469</td>
<td>100</td>
<td>130</td>
<td>7/29/2000</td>
</tr>
<tr>
<td>H Street at Alhambra Boulevard</td>
<td>15274</td>
<td>1099</td>
<td>1256</td>
<td>2/22/2000</td>
</tr>
</tbody>
</table>

Note: Traffic volumes pre-2000 were disregarded.

2.5  OPERATIONS AND MAINTENANCE

2.5.1  Operations

Operation of the Water Vault would be automated as much as possible to improve efficiency and reduce labor costs. The use of weirs would reduce flooding risks and reduce outflows in the future. Level sensors within the offline storage facility would be utilized to transmit flow levels to the SCADA. This would allow the City to control, monitor, and record the flow levels within the Water Vault to ensure all the systems are running smoothly.

Automatic shut off valves would be placed at the entrance of the sewer pipeline. This would ensure that no sewage would enter the odor control facility and thus, the odor control facility would maintain its integrity and function at optimized levels. Once the storm has passed and the sewage levels in the combined sewers has dropped to the point where there is excess capacity, the proposed dewatering pumps would operate until the Water Vault has been drained. Peak water levels would be monitored and recorded by SCADA.
2.5.2 Maintenance

Features and controls would be incorporated into the design of the Water Vault to allow for remote operations and minimize labor costs, however, some maintenance activities would still be required.

The City would conduct routine checking and periodic maintenance of the Water Vault storage facility. Connection pipelines, structures and offline storage facility would be cleaned as necessary, and would be inspected every five-years using closed circuit television (CCTV). Inspection of the diversion structures is expected to occur semi-annually. The facility interior may require occasional cleaning to remove grease, silt and other debris from the interior floor and walls with high pressure hoses, depending on frequency of use. There would likely be several access manholes directly over the Water Vault, within the Park boundaries, in order for maintenance workers to gain access to the inside of the Water Vault. These manholes would be located away from the soccer field in the northwest and south end of the Water Vault footprint. The appropriate safety precautions would be taken when entering and exiting the Water Vault to avoid any potential hazards and minimize risks.

Replacement parts such as cables or gaskets would be needed approximately every five-years, with pump replacement expected approximately every 25-years.

Spent carbon media used in odor control devices can either be regenerated in place or replaced. It is expected that the carbon media would be replaced approximately every five-years, or as needed based on media testing.
3.0 ENVIRONMENTAL IMPACT ASSESSMENT

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.2, this Draft Environmental Impact Report (EIR) identifies and focuses on the significant direct and indirect environmental effects of the proposed Project, considering both its short-term and long-term effects. Short-term effects are generally those associated with construction of the proposed Project, while long-term effects are generally those associated with operation of proposed Project.

Organization of Resource Area Assessment

Each environmental issue analyzed in Chapter 3.0 contains the following components:

Regulatory Framework presents the laws, regulations, plans, and policies that are relevant to each issue area. Regulations originating from the Federal, State, and/or local levels are each discussed as appropriate.

Environmental Setting presents the existing environmental conditions within the proposed Project boundaries and within the surrounding Project area as appropriate to establish baseline conditions, in accordance with CEQA Guidelines Section 15125. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected. For example, air quality impacts are assessed for the air basin (macro-scale), as well as the site vicinity (micro-scale), whereas aesthetic impacts are assessed for the project vicinity only.

Environmental Impacts includes the Methodology for Analysis in determining what constitutes a significant impact, the Thresholds of Significance used to determine the level of significance of the environmental impacts for each resource topic, in accordance with CEQA Guidelines Sections 15126, 15126.2, and 15143, and the Project Impact Analysis and documentation of any required mitigation measures. The thresholds of significance used in this Draft EIR were developed using criteria from the CEQA Guidelines and Appendix G Checklist; state, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Project Impacts identify the level of each environmental impact by comparing the effects of the proposed Project to the environmental setting. Project impacts are organized numerically in each subsection (e.g., Impact AES-1, Impact AES-2, Impact AES-3). A bold-font environmental impact statement precedes the discussion of each impact while its level of significance follows the discussion of each impact. The discussion that follows the impact summary includes the substantial evidence supporting the impact significance conclusion.

Required Mitigation includes specific details of the mitigation identified in the Environmental Impacts with performance standards, timing, and responsible parties identified.
Format Used for Impact Analysis and Mitigation Measures

The format adopted in this Draft EIR to present the evaluation of environmental impacts is described and illustrated below. Abbreviations used in the impact analysis and mitigation measure numbering are shown in Section 1.2.3.2.

Summary Heading of Impact (Example)

Impact AIR-1: An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AIR for Air Quality in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.

Impact [AIR-1] Analysis

A narrative analysis follows the impact statement assessing the baseline condition of the proposed Project compared to the established threshold of significance. This analysis identifies any potential mitigation required and explains how the mitigation would mitigate the potential impact. The analysis concludes with the level of significance is with all factors considered.

Level of Significance: Less than Significant with Mitigation (The evaluated Level of Significance concluded in the analysis is included here, such as Less than Significant with Mitigation in this example)

This section describes the determination of the severity of project impacts. This is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the Draft and Final EIRs. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR is determined by considering the predicted magnitude of the impact against the applicable threshold. This section also identifies the resulting level of significance of the impact, including the implementation of mitigation measures (if required).

Mitigation Required: [MM AIR-1] (this finding lists all mitigation required to make the finding listed above for a specific impact)

Mitigation Required lists any feasible measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts, with measures having to be fully enforceable through incorporation into the project (PRC Section 21081.6[b]) as discussed under the impact analysis.

Mitigation measures are not required for environmental impacts that are found to be less than significant. Where feasible mitigation for a significant environmental impact is available, it is described following the impact. If sufficient feasible mitigation were not available to reduce environmental impacts to a less than
significant level, or where the Lead Agency lacked the authority to ensure that the mitigation be implemented when needed, the impacts would be identified as significant and unavoidable. None of the impacts identified for the proposed Project have been identified as significant and unavoidable.

In some cases, following the impact discussion, reference is made to State and Federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited.

Project-specific mitigation measures, beyond those contained in other documents, are identified with a summary heading and described using the format presented below:

**Mitigation Measure AIR-1 [Title]:** [Description] indicates Project-specific mitigation that is identified that would reduce the impact to the lowest degree feasible.
3.1  AESTHETICS AND VISUAL RESOURCES

This section describes the regulatory and environmental setting for aesthetics and visual resources. It also describes impacts to aesthetics and visual resources that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.1.1  Regulatory Framework

3.1.1.1  Federal and State

There are no roadways near the Project site that are designated in federal or State plans as a scenic highway or route worthy of protection for maintaining and enhancing scenic viewsheds.

3.1.1.2  Local

City of Sacramento 2035 General Plan

The following goals and policies from the Land Use and Urban Design (LU) Element and the Environmental Resources (ER) Element related to aesthetics, light, and glare are relevant to the proposed Project (City of Sacramento 2015a). Those goals and policies that directly pertain to the project are discussed in the impact analysis below.

**Goal LU 2.3 City of Trees and Open Spaces.** Maintain a multi-functional “green infrastructure” consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

**Policy LU 2.3.1 Open Space System.** The City shall strive to create a comprehensive and integrated system of parks, open space, and urban forests that frames and complements the city’s urbanized areas.

**Goal LU 2.4 City of Distinctive and Memorable Places.** Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento’s unique historic, environmental, and architectural context, and create memorable places that enrich community life.

**Policy LU 2.4.1 Unique Sense of Place.** The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.

**Policy LU 2.4.2 Responsiveness to Context.** The City shall promote building design that respects and responds to the local context, including use of local materials, responsiveness to Sacramento’s climate, and consideration of cultural and historic context of Sacramento’s neighborhoods and centers.

**Goal LU 2.7 City Form and Structure.** Require excellence in the design of the city’s form and structure through development standards and clear design direction.
Policy LU 2.7.5 Development Along Freeways. The City shall promote high quality development character of buildings along freeway corridors and protect the public from the adverse effects of vehicle-generated air emissions, noise, and vibration, using such techniques as:

- Requiring extensive landscaping and trees along the freeway fronting elevation;
- Establish a consistent building line, articulating and modulating building elevations and heights to create visual interest; and
- Include design elements that reduce noise and provide for proper filtering, ventilation, and exhaust of vehicle air emissions.


Policy ER 7.1.1 Protect Scenic Views. The City shall seek to protect views from public places to the Sacramento and American rivers and adjacent greenways, landmarks, and urban views of the downtown skyline and the State Capitol along Capitol Mall.

City of Sacramento Tree Planting, Maintenance, and Conservation Ordinance No. 2016-0026

The City has adopted provisions relating to tree planting, maintenance and conservation. The City Code states the following regarding the purpose of the regulations:

The city council finds that trees are a signature of the city and are an important element in promoting the well-being of the citizens of Sacramento. The city council finds that, when proper arboricultural practices are applied, trees enhance the natural scenic beauty of the city; increase oxygen levels; promote ecological balance; provide natural ventilation and air filtration; provide temperature and erosion controls; increase property values; and improve the quality of life. The city council also finds and determines that it is in the public interest to protect and manage tree resources within the city in order to preserve and maintain the benefits that they provide to the community. The purpose of this chapter is to provide for the conservation of existing tree resources; to optimize tree canopy coverage throughout the city while recognizing individual rights to develop and make reasonable use of private property consistent with the general plan; and to provide clear standards for protection, removal, and replacement of city trees and private protected trees. (City Code section 12.56.010)

The City of Sacramento Parks and Recreation Master Plan (2005-2010)

The City of Sacramento Parks and Recreation Master Plan (PRMP) includes various implementation strategies to help fulfil the vision and goals of the PRMP. The strategies that are relevant to the proposed Project include:

4.0 Facility Use and Management

4.2 Protect and invest in the parks and recreation system’s infrastructure (including all turf, landscaping, buildings, and other physical elements/improvements).
3.1.2 Environmental Setting

Aesthetic resources are those natural resources, landforms, vegetation, and manmade structures in the region and local environment that generate sensory reactions and evaluations by viewers. Potential viewers in the proposed Project area include: local residents, joggers, individuals, families, and groups that use McKinley Park, and motorists passing next to McKinley Park. These viewer groups are discussed in more detail below.

The regional landscape consists of a highly-urbanized region in Sacramento, California. The local area is characterized by mixed residential and commercial uses and is approximately two miles from the Downtown Sacramento area and Capitol Mall. The elevation of the proposed Project site is approximately 20-feet above mean sea level (AMSL) at 38.5757387°N, -121.4610655°W. The American River is approximately one mile to the north of McKinley Park.

McKinley Park is a public place and includes approximately 32-acres of land that includes supports various recreational and community activities including a perimeter jogging trail, tennis courts, a pool, a rose garden, picnic areas, ball fields, playgrounds, a library, and a community center. McKinley Park has a variety of vegetation types which include large trees, grass, and flowering bushes. Wildlife is drawn to this location due to the size and variety of habitat. Additionally, people from around the area often come to McKinley Park to view the tree canopy within the Park and use the open spaces for recreational purposes.

Other public parks in the area include Sutter’s Landing Regional Park which is located just north of the proposed Project site, approximately 0.5-miles away across Interstate Business 80. Sutter’s Landing Regional Park is the largest City-owned park within a half-mile of the proposed Project at 163 acres.

Three smaller public parks, Marshall Park, Leland Stanford Park, and Lubin School Park are all located approximately 0.3-miles from McKinley Park.

3.1.2.1 Viewer Groups

Nearby Residents

There are approximately 17 single-family residences on 33rd Street that face McKinley Park with relatively unobstructed views of the Park in the location of the Project site. Further, an apartment building, the Park McKinley Apartments, at the southeastern corner of 33rd Street and H Street and approximately 14 homes on the south side of H Street have views obstructed by trees and buildings of the Park in the Project area. There are other homes and businesses along Alhambra Boulevard and McKinley Boulevard that would be subject to construction traffic however, these homes and business also have intervening trees, gardens or buildings that obstruct views of the Park at the proposed Project site. Residences with views of the Park range from approximately 25- to 150- feet away from the part of the Park where the proposed Project would be located.

Exposure level is high for residences with unobstructed views of McKinley Park since their length of exposure is long and their positions are fixed. Residents along 33rd Street would have the highest viewer sensitivity to views of the proposed Project area, especially during construction. The residences along
33rd Street range from 25- to 150- feet away from the proposed Project location and the flat topography as well as minimal vegetation allow for unobstructed views of the proposed Project site. Residences along H Street would also have high sensitivity to the proposed Project location due to their proximity and relatively unobstructed views of the proposed Project site. Residences along Alhambra Boulevard and McKinley Boulevard would have more obstructed views of the proposed Project site due to buildings, trees, and other park features in the way.

Park Visitors

McKinley Park provides approximately 26-acres of park landscape to serve the East Sacramento community. Daily users of McKinley Park include individuals, families, and special event users. In a survey conducted by the City of Sacramento Youth, Parks, & Community Enrichment Department as a part of the Parks and Recreation Master Plan, McKinley Park was found to be the second most visited park in the region (City of Sacramento 2009). Visitors to the Park have full to limited views in the areas of the Park where construction activities and the proposed Project would be located. Views of the Park in these areas are dependent on viewer distance and line of sight. Park features such as the Clunie Center, tennis courts, buildings, topography, and vegetation all have the potential to contribute to obstruction of views for Park visitors.

The exposure level for park visitors would be considered moderately high based upon the overall use of McKinley Park and the urbanized density of the surrounding area. Recreation activities occur throughout McKinley Park including, but not limited to, jogging, bird watching, sports activities and events, swimming, sightseeing, and biking (City of Sacramento 2009).

Roadway Users

Like Park visitors, motorists on roadways surrounding McKinley Park have views of areas of the Park where the Project would occur ranging from full exposure to limited by trees, park features, and buildings. Motorists’ exposure for the proposed Project impacts is considered low since their speed and movement allows for only short view durations of stationary objects.

3.1.2.2 Visual Sensitivity

Based on review of the Sacramento 2035 General Plan, sensitivity levels of viewers in the proposed Project area is considered high (City of Sacramento 2015a). The 2035 General Plan identifies various goals and policies to protect visual and scenic resources as an important part of quality-of-life amenity, a principal asset in the promotion of recreation and tourism, and an important part of maintaining the open space aspect of the proposed Project. Maintaining natural areas, open space, urban forest, and parkland are seen as critical components of the scenic beauty of the area.

3.1.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to aesthetic and visual resources. When an impact is determined to be potentially significant, mitigation measures were identified that would reduce or avoid that impact.
3.1.3.1 Methodology of Analysis

Using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance were established and were analyzed and evaluated using the methodology established in Section 3.1.3.2 to determine whether impacts to aesthetics and visual resources would be significant. Would the proposed Project:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Key Terminology Used in Analysis

The visual impacts of the Project were determined by assessing the visual resource change due to the project and predicting viewer response to that change.

**Visual resource change** is the sum of the change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed Project within the visual character of the existing landscape.

The second step is to compare the visual quality of the existing resources with the anticipated visual quality after the project is constructed.

**Viewer response** is the sum of viewer exposure and viewer sensitivity to the project.

**Viewer exposure** is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, the duration of their view, the speed at which the viewer moves, and the position of the viewer.

**Viewer sensitivity** is defined both as the viewers’ concern for scenic quality and the viewers’ response to change in the visual resources that make up the view.

**Sensitive receptors** occur where viewer exposure and sensitivity are both high. This generally consists of residential, recreational, and historical areas. The resulting level of visual impact is determined by combining the level of resource change with the degree to which people are likely to support or oppose the change.

3.1.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.
Impact AES-1  Potential to have a substantial adverse effect on a scenic vista.

Impact AES-1 Analysis

The City of Sacramento 2035 General Plan designates public places which have views to the Sacramento and American Rivers as well as adjacent greenways, landmarks, and urban views of the downtown skyline and the State Capitol along Capitol Mall as scenic vistas (City of Sacramento 2009). The proposed Project would not affect any of these views because it is a half mile away from Sutter’s Landing Park (the closest public place along the American River) and cannot be seen directly from McKinley Park. However, scattered views of other public places such as the Sacramento and American Rivers, the downtown skyline, and the State Capitol can be seen from the proposed Project location. Most of the Project components would be located underground and not visible in any manner once construction is complete, with only the electrical control building located above ground within McKinley Park. Views of the Park from some locations, both on- and off-site, would be temporarily disrupted by the presence of construction equipment, but this would be a temporary effect and less than significant. Therefore, there would be a less-than-significant impact to scenic vistas.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact AES-2  Potential to damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Impact AES-2 Analysis

According to the Caltrans list of Eligible (E) and Officially Designated (OD) Scenic Routes there are no officially designated state scenic highways in the region and thus the Project does not have the potential to damage resources within a scenic highway. As such, no impact would occur, and no mitigation measures would be required.

Level of Significance: No Impact

Mitigation Measure: None Required

Impact AES-3  Potential to substantially degrade the existing visual character or quality of the site and its surroundings.

Impact AES-3 Analysis

A project is considered to “substantially degrade” the visual character or quality of a site if it would have a strong negative influence on the public’s or a resident’s experience and appreciation of the visual environment. As such, visual changes are always considered in the context of a site’s or locale’s visual sensitivity. Visual changes caused by the proposed Project are evaluated in terms of their visual contrast with the area’s predominant landscape elements and features, their dominance in views relative to other
existing features, and the degree to which they could block or obscure views of aesthetically pleasing landscape elements.

Project Construction

The construction of the proposed Project would occur over a period of approximately two years. The construction effects as they relate to aesthetics would involve views of construction equipment (e.g., trucks, excavation equipment, protective fencing, construction workers) in and around the Park, and the resulting disruption in the Park environment due to the presence of such equipment. The presence of construction equipment, by itself, would not result in a significant effect. Construction activities of various sorts are common events, and the presence of construction equipment within the urban area is not unusual. Additionally, the proposed Project construction activities would have a temporary impact for visitors and a portion of the Park would be unusable to the public during construction.

Project construction would affect local views including views of staging areas and construction equipment. The construction phase would include movement and storage of equipment and materials at staging areas, as well as the operation of worker vehicles and construction equipment on the nearby roads. Construction of the proposed Project would include vegetation removal, excavation, concrete site preparation and installation, vault construction, grading, backfilling, and park restoration. Temporary visual impacts would occur throughout construction of the proposed Project. The staging areas selected by the contractor would be in use concurrently for the duration of construction. Additionally, pursuant to the applicable safety regulations, the Project site would be fenced which would limit access to the site and would also add to the visual changes from construction activities. Applicable air regulations would be followed by the contractor (see Section 3.2 for more details) which would limit dust and particulate matter at the site.

Temporary closures to the jogging path and vehicle access would occur during construction, however, detours and alternate routes would be available. In addition, the jogging path and vehicle access would be restored to existing conditions post-construction. Due to the temporary nature of impacts to the jogging path and vehicle access, the Project would not be a substantial degradation to the visual character since the character of the Park character would remain intact, construction would be temporary, and joggers and path users would be seen on alternate routes. Therefore, the proposed Project would have a less than significant impact to the visual character and quality of the area experienced by park visitors.

Impacts to residents, park visitors, and motorists would not be a substantial degradation to the visual character from construction activities as construction activities would be temporary and, upon completion of the proposed Project, the Project site would return to pre-construction conditions with minor changes to vegetation and park features. Any impacts to trees or other vegetation would be mitigated through Mitigation Measure (MM) AES-1 which would limit overall tree removal and revegetate the proposed Project area upon completion of the construction activities. This would make any associated impacts to the existing visual character less than significant since the site would be similar in character to pre-construction conditions.
MCKINLEY WATER VAULT PROJECT

Aesthetics and Visual Resources
April 2018

Project Operation

The proposed Water Vault would be located underground and would not be visible once construction is completed and the turf and landscaping replaced. A building housing the electrical controls required for the Project would be constructed and a restroom may be constructed as part of the Project. The addition of these features would not result in a substantial change in the appearance of the Park.

Facilities, including the electrical control building, would be relatively small and would occupy a maximum of 30- by 25- footprint within the McKinley Park area. Improper treatment and architectural coatings on above ground structures could result in changes to the visual character of the Park. However, MM AES-2 would be implemented to ensure the treatments on above ground facilities would match the existing facilities within the Park. The baseball field would be restored to its pre-Project condition or enhanced with a new soccer field and landscaping and grass areas would be replaced and paths and roadways would be restored. The Project facilities, following completion of construction, would not adversely affect views of the park and would be less than significant.

Based on the visual sensitivity of the area and the proximity of sensitive viewers to the proposed Project, the removal of trees and vegetation with the proposed Project site and access areas has the potential to alter the existing visual environment. This alteration of the existing environment may result in the proposed Project having a negative influence on the public’s experience and appreciation of the visual environment.

A total of 129 trees are located within the proposed Project site, including access and staging areas, however, in accordance with City Code 12.56.040(A) the proposed Project has been designed to avoid removal and/or pruning of these trees. Project construction activities and access to the site could require removal or pruning of a small number of trees to accommodate movement of large construction equipment but no tree removal is required to accommodate the construction or operation of permanent Project features. Additionally, MM AES-1 would be implemented to further limit tree removal requiring appropriate restoration and revegetation of the construction areas associated with the proposed Project to ensure visual impacts to nearby receptors are reduced. Native trees would be planted where appropriate along with grass and other landscaping elements. As a result, the long-term effects on visual character and quality would be considered less than significant with mitigation incorporated.

Therefore, permanent visual impacts associated with the proposed Project would be reduced to less than significant with MM AES-1 and AES-2.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: AES-1, AES-2
Impact AES-4 Analysis

There is no substantial permanent lighting associated with the proposed Project. Temporary construction lighting associated with construction staging areas and nightshift work crews have the potential to create a new source of light which could temporarily affect views in the area. If not appropriately implemented this temporary light source could result in lighting that could adversely affect nighttime views in the area. However, these temporary impacts would be considered less than significant with the implementation of MM AES-3, Use of Best Management Practice to Minimize Lighting Impacts from Construction and Operation which would ensure protective measures such as selecting warm toned lights and facing light fixtures in a downward direction that would minimize any potential impact from temporary lighting. The electrical control facility would include lighting for security and night use similar to the other restrooms and lighted facilities located within McKinley Park. This lighting would not produce a substantial source of light or glare that could affect nighttime views in the area beyond what is currently located within the Park. MM AES-3 would ensure the lighting is installed properly to further reduce any potential impact for substantial nighttime light source. The electrical control facility would not introduce a substantial source of glare impacting daytime views. Other components of the proposed Project are subsurface and would not introduce substantial sources that could cause glares. Therefore, the proposed Project’s potential to create a new source of light or glare is considered less than significant with the implementation of MM AES-3.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM AES-3

3.1.4 Mitigation Measures

Mitigation Measure AES-1: Restoration or Enhancement of Disturbed Areas

Post construction, roads, paths, and staging areas that are damaged by construction activities shall be restored to pre-construction conditions by the City of Sacramento or its contractor. Restoration may include repairing, repaving, re-graveling, or grading disturbed areas. Staging areas and other non-road areas would be revegetated following City Department of Youth, Parks, and Community Enrichment standards. The City shall follow compliance with the City’s tree ordinance for removal of City trees.

Mitigation Measure AES-2: Select Colors and Finishes for Above Ground Elements Which Blend with Their Existing Visual Environment

The above ground facilities including the electrical control facility shall be designed to blend with the existing facilities such as the Clunie center within McKinley Park. Where improvements occur at existing facilities, the proposed Project shall be required to use colors and finishes which are the same as or complementary to the existing visual environment.
Mitigation Measure AES-3: Use of Best Management Practices to Minimize Lighting Impacts from Construction and Operation

The following best management practices (BMPs) shall be implemented to ensure minimal adverse impacts to nighttime views for adjacent sensitive receptors. These BMPs shall apply to the construction activities and staging areas implemented by the contractor during construction.

BMPs shall include, but are not limited to:

- Identify when/where lighting is needed and confine/minimize lighting to the extent necessary to meet safety purposes.
- Choose light fixtures that direct light downward and which shield direct lighting from sensitive receptor to the maximum extent feasible.
- Select warm color temperature bulbs (less than 5000K).
- Utilize "shut off" controls such as sensors, timers, and motion detectors, etc. where appropriate.
- Limit the height of fixtures to minimize the amount of light crossing property lines and overall light levels.
- Utilize temporary lighting shields during construction where construction lighting impacts to sensitive receptors cannot be avoided.
3.2 AIR QUALITY

This section describes the regulatory and environmental setting for air quality. It also describes impacts on air quality that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.2.1 Regulatory Framework

3.2.1.1 Federal and State

Clean Air Act

The Environmental Protection Agency (EPA) is responsible for addressing national and interstate air pollution issues and setting policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards (NAAQS), also known as Federal standards. There are Federal standards for the following criteria air pollutants, which were identified from provisions of the Clean Air Act of 1970:

- Ozone;
- Particulate matter (PM$_{10}$ and PM$_{2.5}$);
- Nitrogen dioxide;
- Carbon monoxide (CO); and
- Lead Sulfur dioxide.

The Federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary Federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health (CARB 2017).

State Implementation Plan

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that would be followed to attain and maintain Federal standards. The State Implementation Plan for the State of California is administered by the California Air Resources Board (CARB), which has overall responsibility for Statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual Federal attainment plans for regional air districts—air districts prepare their Federal attainment plans, which are sent to CARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.
3.2.1.2 Local

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet Federal and State ambient air quality standards in Sacramento County and the larger Sacramento Ozone Nonattainment Area.

The SMAQMD operates monitoring stations in Sacramento County, develops rules, regulations, and CEQA thresholds for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. Table 3.2-1 depicts the SMAQMD Thresholds of Significance for projects subject to CEQA (SMAQMD 2009a).

Table 3.2-1 SMAQMD Thresholds of Significance

<table>
<thead>
<tr>
<th>Mass Emission Thresholds</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen Oxide (NOx) (Ozone precursor)</td>
<td>85 pounds/day</td>
<td>65 pounds/day</td>
</tr>
<tr>
<td>Reactive Organic Gases (ROG) (VOC) (Ozone precursor)</td>
<td>None</td>
<td>65 pounds/day</td>
</tr>
<tr>
<td>Particulate Matter (PM10)</td>
<td>Zero (0). If all feasible best available control technology (BACT) and best management practices (BMPs) are applied, then 80 pounds/day and 14.6 tons/year</td>
<td>Zero (0). If all feasible BACT and BMPs are applied, then 80 pounds/day and 14.6 tons/year</td>
</tr>
<tr>
<td>Particulate Matter (PM2.5)</td>
<td>Zero (0). If all feasible BACT and BMPs are applied, then 82 pounds/day and 15 tons/year</td>
<td>Zero (0). If all feasible BACT and BMPs are applied, then 82 pounds/day and 15 tons/year</td>
</tr>
</tbody>
</table>

Concentration Thresholds (Based on the California Ambient Air Quality Standard, identical threshold for both phases of development)

| Carbon Monoxide (CO) | 20 ppm 1-hour standard (23 mg/m³); 9 ppm 8-hour (10 mg/m³) |
| Nitrogen Dioxide (NO2) | 0.18 ppm 1-hour standard (339 µg/m³); 0.03 ppm Annual Arithmetic Mean (57 µg/m³) |
| Sulphur Dioxide (SO2) | 0.25 ppm 1-hour standard (665 µg/m³); 0.04 ppm 24-hour standard (105 µg/m³) |
| Lead | 1.5 µg/m³ 30-day average |
| Visibility Reducing Particles | Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent |
| Sulfates | 25 µg/m³ 24-hour standard |
| Hydrogen Sulfide (H₂S) | 0.03 ppm (42 µg/m³) 1-hour standard |
| Vinyl Chloride | 0.01 ppm (26 µg/m³) 24-hour standard |
The SMAQMD’s air quality management plans include control measures and strategies to be implemented to attain State and Federal ambient air quality standards in Sacramento County. The SMAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

Applicable SMAQMD attainment plans include:

- **8-Hour Ozone Attainment and Reasonable Further Progress Plan and Revised 8-Hour Ozone Attainment and Reasonable Further Program Plan**: The 2009 8-Hour Ozone Attainment and Reasonable Further Program Plan describes measures to be implemented by the air districts in the Sacramento Federal Nonattainment Area (SFNA) to achieve the 1997 ozone NAAQS. This plan includes the information and analyses to fulfill the Federal Clean Air Act (CAA) requirements for demonstrating reasonable further progress and attainment of the 1997 8-hour ozone NAAQS for the Sacramento region. In addition, this plan establishes an updated emissions inventory projected for a 2019 attainment date, provides photochemical modeling results, proposes the implementation of reasonably available control measures, and sets new motor vehicle emission budgets for transportation conformity purposes for the reasonable further progress milestone years and the 2018 attainment year. The emission reduction strategy is based on reductions in both reactive organic gases (ROG) and nitrogen oxide (NOx) emissions. Future control measures include State and Federal control strategies (e.g., smog check program improvements and cleaner heavy-duty trucks and off-road equipment), local mobile source incentive programs, Sacramento Area Council of Governments’ transportation control measures, a measure to reduce biogenic volatile organic compounds (VOC) from Sacramento’s urban forest, indirect source rules related to construction and operation of development projects, and new and more stringent stationary source control rules (SMAQMD 2011).

In 2011, the air districts comprising the SFNA reviewed the 2009 Ozone Attainment Plan and concluded that certain stationary source control measures and transportation control measures would not be adopted or implemented within the time frames outlined in the plan. The air districts submitted a revision to CARB and United States Environmental Protection Agency (USEPA). For the SMAQMD, the revision resulted in removal of two stationary source control measures (stationary internal combustion engines at major stationary sources and asphaltic concrete) and two indirect source review rule measures commitments, substitution of one transportation control measure (TCM) and rescheduling several stationary source measures and TCMS.

- **PM10 Implementation/Maintenance Plan and Redesignation Request for Sacramento County**: On October 28, 2010, the SMAQMD Governing Board approved the PM$_{10}$ maintenance plan and request for redesignation for the 1997 PM$_{10}$ NAAQS (SMAQMD 2010a). In 2002, the USEPA officially determined that Sacramento County had attained the PM$_{10}$ NAAQS by the December 31, 2000, attainment deadline. This plan fulfills the requirements for the USEPA to redesignate Sacramento County from nonattainment to attainment of the PM$_{10}$ NAAQS by preparing the following plan elements and tasks:

  - Document the extent of the PM$_{10}$ problem in Sacramento County
Determine the emission inventory sources contributing to the PM$_{10}$ problem

o Identify the appropriate control measures that achieved attainment of the PM$_{10}$ NAAQS

o Demonstrate maintenance of the PM$_{10}$ NAAQS

o Request formal redesignation to attainment of the PM$_{10}$ NAAQS (SMAQMD 2010a). On December 7, 2010, following review of the maintenance plan and redesignation request, CARB submitted it to the USEPA for approval. The USEPA proposed redesignation of the area on July 24, 2013, and opened a public comment period for this action. Final USEPA approval of the redesignation is pending as of this writing.

- **2009 Triennial Report and Plan Revision:** This plan is intended to comply with the requirements of the California Clean Air Act (CCAA) as related to bringing the region into compliance with the California Ambient Air Quality Standards (CAAQS) for ozone. The SMAQMD has prepared several triennial progress reports that build upon the 1994 Sacramento Area Regional Ozone Attainment Plan. The 2009 Triennial Report and Plan Revision (SMAQMD 2010b) is the most recent report. The triennial progress report includes a current emission inventory and projected future inventories of ROG and NO$_x$ emissions in Sacramento County. The future inventories reflect population growth rates, travel, employment, industrial/commercial activities, and energy use, as well as controls imposed through local, State, and Federal emission reduction measures. The triennial report discusses rules that the SMAQMD has adopted during the previous 3 years, incentive programs that have been implemented, and other measures that would supplement those in the Ozone Attainment Plan to achieve the required five percent per year reduction required by the CCAA.

In addition, the SMAQMD has several rules that relate to the proposed project, which are summarized below.

**Rule 201 – General Permit Requirements:** Requires any project that includes the use of certain equipment capable of releasing emissions to the atmosphere as part of project operation to obtain a permit from the SMAQMD prior to operation of the equipment. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD to determine if a permit is required. Portable construction equipment with an internal combustion engine over 50 horsepower are required to have a SMAQMD permit or a CARB portable equipment registration.

**Rule 401 – Ringelmann Chart:** Prohibits individuals from discharging into the atmosphere from any single source of emissions whatsoever any air contaminant whose opacity exceeds certain specified limits.

**Rule 402 – Nuisance:** To protect the public health, Rule 402 prohibits any person from discharging such quantities of air contaminants that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.
Rule 403 – Fugitive Dust: Requires a person to take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation.

Rule 442 – Architectural Coatings: Sets VOC limits for coatings that are applied to stationary structures or their appurtenances. The rule also specifies storage and cleanup requirements for these coatings.

Rule 453 – Cutback and Emulsified Asphalt Paving Materials: Asphalt paving operations that may be associated with implementation of the project would be subject to Rule 453. This rule applies to the manufacture and use of cutback asphalt and emulsified asphalt for paving and maintenance operations.

Rule 902 – Asbestos: To protect the public health and the environment, Rule 902 sets specific procedures to follow regarding handling, transport, and disposal of asbestos containing materials.

The Guide to Air Quality Assessment in Sacramento County also provides methods to analyze air quality impacts from plans and projects, including screening criteria, thresholds of significance, calculation methods, as well as mitigation measures that help assist lead agencies in complying with CEQA. These guidelines require that basic construction emission control practices be implemented for emissions regardless of the significance determination.

The Sacramento Valley Basinwide Air Pollution Control Council

The Sacramento Valley Basinwide Air Pollution Control Council (Control Council) is authorized pursuant to California Health and Safety Code Section (HSC) section 40900 (SMAQMD 2016) to carry out the following activities relevant to the Proposed Project pursuant to State Law and the California Code of Regulations (reference HSC section 41865 and section 41866; California Code of Regulations section 80100 et. seq.):

- Assist Districts in the Sacramento Valley Air Basin in coordinating all air pollution control activities to ensure that the entire Sacramento Valley Air Basin is, or will be, in compliance with the requirements of State and Federal law.

City of Sacramento 2035 General Plan

The City of Sacramento’s air quality and climate change Goals and Policies are provided in the Environmental Resources (ER) Element and the Utilities (U) Element of the General Plan and are as follows:

Goal ER 6.1 Improved Air Quality. Improve the health and sustainability of the community through improved regional air quality and reduced greenhouse gas emissions that contribute to climate change.

Policy ER 6.1.2 New Development. The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for reactive organic gases, nitrogen oxides, and particulate matter (PM_{10} and PM_{2.5}) through project design.
**Policy ER 6.1.3 Emissions Reduction.** The City shall require development projects that exceed SMAQMD ROG and NOx operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.

**Policy ER 6.1.4 Sensitive Uses.** The City shall coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants, and will impose appropriate conditions on projects to protect public health and safety.

**Policy ER 6.1.10 Coordination with SMAQMD.** The City shall coordinate with SMAQMD to ensure projects incorporate feasible mitigation measures to reduce greenhouse gas (GHG) emissions and air pollution if not already provided for through project design.

**Policy ER 6.1.14 Preference for Reduced-Emission Equipment.** The City shall give preference to contractors using reduced emission equipment for City construction projects and contracts for services (e.g., garbage collection), as well as businesses that practice sustainable operations.

### 3.2.2 Environmental Setting

#### 3.2.2.1 Regional Setting

As mentioned in the regulatory framework above, Federal and State ambient air quality standards are set for 10 air pollutants designated in the CCAA. The Federal and State ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 3.2-2. Several pollutants are mentioned in Table 3.2-2 but do not apply to the proposed Project and are therefore not further addressed in this analysis. Analysis of lead is not included because the proposed Project would not involve lead-based materials and is not anticipated to result in emissions of lead pollutants such as aerially deposited lead. The proposed Project is not expected to generate or be exposed to vinyl chloride because proposed Project uses do not include chemical processes that create this pollutant, and there are no such uses in the Project vicinity.
### Table 3.2-2  California and Federal Ambient Air Standards and Description of Air Pollutants

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>1 Hour</td>
<td>0.09 ppm</td>
<td>—</td>
<td>Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.</td>
<td>Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between VOC, NOx, and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind.</td>
<td>Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NOx) are mobile sources (on-road and off-road vehicle exhaust).</td>
</tr>
<tr>
<td></td>
<td>8 Hour</td>
<td>0.070 ppm</td>
<td>0.075 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
<td>1 Hour</td>
<td>20 ppm</td>
<td>35 ppm</td>
<td>Ranges depending on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.</td>
<td>CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.</td>
<td>CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.</td>
</tr>
</tbody>
</table>
### Air Pollutant Properties and Sources

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen dioxide(^b) (NO(_2))</td>
<td>1 Hour</td>
<td>0.18 ppm</td>
<td>0.100 ppm</td>
<td>Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contributions to atmospheric discoloration' increased visits to hospital for respiratory illnesses.</td>
<td>During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO(_x) (NO, NO(_2), NO(_3), N(_2)O, N(_2)O(_3), N(_2)O(_4), and N(_2)O(<em>5)). NO(<em>x) is a precursor to ozone, PM(</em>{10}), and PM(</em>{2.5}) formation. NO(_x) can react with compounds to form nitric acid and related small particles and result in PM related health effects.</td>
<td>NO(_x) is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. Nitrogen dioxide forms quickly from NO(_x) emissions. NO(_2) concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.</td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>0.030 ppm</td>
<td>0.053 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur dioxide(^c) (SO(_2))</td>
<td>1 Hour</td>
<td>0.25 ppm</td>
<td>0.075 ppm</td>
<td>Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.</td>
<td>Sulfur dioxide is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO(<em>x)) include sulfur dioxide and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although sulfur dioxide concentrations have been reduced to levels below State and Federal standards, further reductions are desirable because sulfur dioxide is a precursor to sulfate and PM(</em>{10}).</td>
<td>Human caused sources include fossil-fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of sulfur dioxide. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. Sulfur dioxide is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The sulfur dioxide levels in the State are well below the maximum standards.</td>
</tr>
<tr>
<td></td>
<td>3 Hour</td>
<td>—</td>
<td>0.5 ppm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24 Hour</td>
<td>0.04 ppm</td>
<td>0.14 ppm (for certain areas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Annual</td>
<td>—</td>
<td>0.030 ppm (for certain areas)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Pollutant</td>
<td>Averaging Time</td>
<td>California Standard</td>
<td>Federal Standard</td>
<td>Most Relevant Effects from Pollutant Exposure</td>
<td>Properties</td>
<td>Sources</td>
</tr>
<tr>
<td>----------------------</td>
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<td>---------------------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Particulate matter (PM$_{10}$)</td>
<td>24 hour</td>
<td>50 µg/m$^3$</td>
<td>150 µg/m$^3$</td>
<td>Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.</td>
<td>Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM$<em>{10}$ refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). PM$</em>{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.</td>
<td>Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>20 µg/m$^3$</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Particulate matter (PM$_{2.5}$)</td>
<td>24 Hour</td>
<td>—</td>
<td>35 µg/m$^3$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual</td>
<td></td>
<td>12 µg/m$^3$</td>
<td>12.0 µg/m$^3$</td>
<td>Visibility-reducing particles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Hour</td>
<td></td>
<td>See note below$^d$</td>
<td>See note below$^d$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfates</td>
<td>24 Hour</td>
<td>25 µg/m$^3$</td>
<td>—</td>
<td>Decrease in ventilatory function; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.</td>
<td>The sulfate ion is a polyatomic anion with the empirical formula SO$_4^{2-}$. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.</td>
<td>Sulfates are particulates formed through the photochemical oxidation of sulfur dioxide. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.</td>
</tr>
</tbody>
</table>
### Air Pollutant Properties

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Averaging Time</th>
<th>California Standard</th>
<th>Federal Standard</th>
<th>Most Relevant Effects from Pollutant Exposure</th>
<th>Properties</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead&lt;sup&gt;e&lt;/sup&gt;</td>
<td>30-day</td>
<td>1.5 µg/m³</td>
<td>—</td>
<td>Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system.</td>
<td>Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded State or Federal standards at any monitoring station since 1982.</td>
<td>Lead ore crushing, lead-ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.</td>
</tr>
<tr>
<td></td>
<td>Quarter</td>
<td>—</td>
<td>1.5 µg/m³</td>
<td>It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rolling 3-month average</td>
<td>—</td>
<td>0.15 µg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vinyl chloride&lt;sup&gt;e&lt;/sup&gt;</td>
<td>24 Hour</td>
<td>0.01 ppm</td>
<td>—</td>
<td>Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.</td>
<td>Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.</td>
<td>Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.</td>
</tr>
<tr>
<td>Hydrogen sulfide</td>
<td>1 Hour</td>
<td>0.03 ppm</td>
<td>—</td>
<td>High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.</td>
<td>Hydrogen sulfide (H₂S) is a flammable, colorless, poisonous gas that smells like rotten eggs.</td>
<td>Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).</td>
</tr>
<tr>
<td>Air Pollutant</td>
<td>Averaging Time</td>
<td>California Standard</td>
<td>Federal Standard</td>
<td>Most Relevant Effects from Pollutant Exposure</td>
<td>Properties</td>
<td>Sources</td>
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<td>-----------------------------------</td>
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<td>---------------------</td>
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<td>---------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.</td>
<td>Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM$_{10}$ and lower visibility.</td>
</tr>
<tr>
<td>Benzene</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen.</td>
<td>Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at 1 to 2 percent by volume. The primary route of human exposure is through inhalation.</td>
</tr>
</tbody>
</table>

Volatile organic compounds (VOCs) are not classified as criteria pollutants. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.

Benzene is a VOC. It is a clear or colorless light-yellow, volatile, highly flammable liquid with a gasoline-like odor. The EPA has classified benzene as a “Group A” carcinogen. Benzene is emitted into the air from fuel evaporation, motor vehicle exhaust, tobacco smoke, and from burning oil and coal. Benzene is used as a solvent for paints, inks, oils, waxes, plastic, and rubber. Benzene occurs naturally in gasoline at 1 to 2 percent by volume. The primary route of human exposure is through inhalation.
## Diesel particulate matter (DPM)

**Air Pollutant**: Diesel particulate matter (DPM)

**Averaging Time**
- There are no ambient air quality standards for DPM.

**California Standard**
- Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.

**Federal Standard**
- DPM is a source of PM$_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, a number of which are found in diesel exhaust.

**Most Relevant Effects from Pollutant Exposure**
- Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

**Properties**
- Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.
Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality (CARB 2013) presents the relevant concentration and cancer risk data for the ten TACs that pose the most substantial health risk in California based on available data. These TACs are as follows: acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and DPM.

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (CARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the CARB emissions inventory's PM$_{10}$ database, ambient PM$_{10}$ monitoring data, and the results from several studies to estimate concentrations of DPM.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., emotional reaction) to physiological (e.g., nausea).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors is subjective and varies considerably among the population. Some individuals have the ability to smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another.
3.2.2.2 Local Setting

The proposed Project is located in Sacramento County within the Sacramento Valley Air Basin (SVAB) and is under the jurisdiction of the SMAQMD. Due to the topographical and climatic factors in the SVAB, there is a potential for high concentrations of regional and local air pollutants.

The CARB emissions inventory for the Sacramento Valley Air Basin is listed in Table 3.2-3 below. All emissions are represented in pounds per day and reflect the most current data provided to the CARB.

Table 3.2-3 2012 Sacramento Valley Air Basin Emissions Inventory

<table>
<thead>
<tr>
<th>STATIONARY SOURCES</th>
<th>TOG</th>
<th>ROG</th>
<th>CO</th>
<th>NOx</th>
<th>SOx</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel Combustion</td>
<td>24.9</td>
<td>3.1</td>
<td>41.6</td>
<td>29.9</td>
<td>1.4</td>
<td>2.8</td>
<td>2.7</td>
<td>2.6</td>
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<tr>
<td>Waste Disposal</td>
<td>97.8</td>
<td>1.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Cleaning and Surface Coatings</td>
<td>13.9</td>
<td>12.0</td>
<td>0.0</td>
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<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Petroleum Production and Marketing</td>
<td>83.5</td>
<td>11.9</td>
<td>0.5</td>
<td>2.1</td>
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<td>0.0</td>
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<tr>
<td>Industrial Processes</td>
<td>5.9</td>
<td>4.6</td>
<td>7.7</td>
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<td>0.3</td>
<td>18.5</td>
<td>9.9</td>
<td>4.8</td>
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<td><strong>TOTAL STATIONARY SOURCES</strong></td>
<td>226.0</td>
<td>32.8</td>
<td>50.0</td>
<td>34.2</td>
<td>1.7</td>
<td>21.4</td>
<td>12.6</td>
<td>7.5</td>
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<table>
<thead>
<tr>
<th>AREA WIDE SOURCES</th>
<th>TOG</th>
<th>ROG</th>
<th>CO</th>
<th>NOx</th>
<th>SOx</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Evaporation</td>
<td>37.9</td>
<td>33.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Miscellaneous Processes</td>
<td>123.9</td>
<td>27.2</td>
<td>148.3</td>
<td>10.0</td>
<td>1.1</td>
<td>218.0</td>
<td>117.4</td>
<td>31.5</td>
</tr>
<tr>
<td><strong>TOTAL AREA WIDE SOURCES</strong></td>
<td>161.9</td>
<td>61.0</td>
<td>148.3</td>
<td>10.0</td>
<td>1.1</td>
<td>218.0</td>
<td>117.4</td>
<td>31.5</td>
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<table>
<thead>
<tr>
<th>MOBILE SOURCES</th>
<th>TOG</th>
<th>ROG</th>
<th>CO</th>
<th>NOx</th>
<th>SOx</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Road Motor Vehicles</td>
<td>39.0</td>
<td>35.7</td>
<td>333.6</td>
<td>93.6</td>
<td>0.4</td>
<td>6.4</td>
<td>6.3</td>
<td>3.5</td>
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<tr>
<td>Other Mobile Sources</td>
<td>32.2</td>
<td>28.7</td>
<td>166.3</td>
<td>49.7</td>
<td>0.4</td>
<td>3.2</td>
<td>3.1</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>TOTAL MOBILE SOURCES</strong></td>
<td>71.2</td>
<td>64.4</td>
<td>499.9</td>
<td>143.2</td>
<td>0.8</td>
<td>9.6</td>
<td>9.4</td>
<td>6.3</td>
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<table>
<thead>
<tr>
<th>GRAND TOTAL FOR SACRAMENTO VALLEY AIR BASIN</th>
<th>TOG</th>
<th>ROG</th>
<th>CO</th>
<th>NOx</th>
<th>SOx</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>459.1</td>
<td>158.2</td>
<td>698.2</td>
<td>187.4</td>
<td>3.6</td>
<td>249.0</td>
<td>139.5</td>
<td>45.4</td>
</tr>
</tbody>
</table>

Source: CARB 2013

Table 3.2-4 describes Sacramento County designations for the State and Federal Ambient Air Quality (CARB 2016 and EPA Green Book 2017).
Table 3.2-4 Sacramento County Area Designations for State and Federal Ambient Air Quality

<table>
<thead>
<tr>
<th>Criteria Pollutants</th>
<th>State Designation</th>
<th>Federal Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozone</td>
<td>Nonattainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>Nonattainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>Attainment</td>
<td>Nonattainment</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>Moderate Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>Attainment</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Sulfates</td>
<td>Attainment</td>
<td>-</td>
</tr>
<tr>
<td>Lead</td>
<td>Attainment</td>
<td>Unclassified/Attainment</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>Unclassified</td>
<td>-</td>
</tr>
<tr>
<td>Visibility Reducing Particles</td>
<td>Unclassified</td>
<td>-</td>
</tr>
</tbody>
</table>

3.2.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to air quality. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.2.3.1 Methodology of Analysis

Using SMAQMD Guide to Air Quality Assessment screening thresholds for significance for criteria pollutants (As shown in Table 3.2-1, SMAQMD 2009), applicable air quality rules and regulations, and the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.14.3.2 based on Project estimates from California Emissions Estimate Model (CalEEMod) to determine whether potential air quality impacts from the proposed Project on the baseline setting (Sections 3.14.1 and 3.14.2) would be significant. A potential impact would be significant if the proposed Project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or California ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people.
To quantify the predicted air emissions, CalEEMod was run to calculate criteria air pollutant emissions from both construction and operation phases using estimates from the Chapter 2.0 Project Description and CalEEMod default information. CalEEMod is the standard evaluation tool for these types of analyses in California and for projects subject to CEQA. Further details on CalEEMod inputs and CalEEMod emissions reports can be found in the Air Quality and GHG Appendix (Appendix B).

### 3.2.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact AIR-1</th>
<th>Potential to conflict with or obstruct implementation of the applicable air quality plan.</th>
</tr>
</thead>
</table>

**Impact AIR-1 Analysis**

As described in the regulatory framework section above, applicable air quality plans include: California State Implementation Plan; SMAQMD plans including: The 8-Hour Ozone Attainment and Reasonable Further Progress Plan and Revised 8-Hour Ozone Attainment and Reasonable Further Progress Plan, PM_{10} Implementation/Maintenance Plan and Redesignation Request for Sacramento County, the 2009 Triennial Report and Plan Revision, as well as the air district rules; and the Sacramento 2035 General Plan.

During construction of the proposed Project, various types of equipment and vehicles would temporarily operate on the proposed Project site. Construction exhaust emissions would be generated from construction equipment, earth movement activities, construction worker’s commutes, and construction material hauling for the entire construction period posing the risk for emissions to violate set standards within an applicable air quality plan. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants, such as ROG and NO\textsubscript{x} which leads to the creation of ozone emissions.

Air quality modeling was performed to evaluate potential Project emissions for criteria pollutants regulated by the applicable air quality plans using Project-specific details to determine whether the proposed Project would generate criteria air pollutant emissions in excess of levels allowed by the air quality plans. The results of the CalEEMod modeling of construction emissions were compared to the SMAQMD standards of significance, summarized in Table 3.2-5.

**Table 3.2-5** Project CalEEMod Predicted Maximum Daily Project Emissions Estimates

<table>
<thead>
<tr>
<th></th>
<th>ROG</th>
<th>NO\textsubscript{x}</th>
<th>CO</th>
<th>PM_{10}</th>
<th>PM_{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Maximum Daily Unmitigated Construction Emissions (lbs/day)</td>
<td>2.8</td>
<td>33.9</td>
<td>18.2</td>
<td>13.7</td>
<td>8.0</td>
</tr>
</tbody>
</table>
Based on the CalEEMod results, estimated unmitigated emissions from the proposed Project would not exceed the thresholds established for key criteria pollutants in the SMAQMD air quality planning documents since MM AIR-1: Dust Control Measures will be implemented as required by SMAQMD. As illustrated in Table 3.2-1, SMAQMD thresholds for PM\(_{10}\) and PM\(_{2.5}\) are zero unless the BMPs for dust control included in MM AIR-1 are implemented. Since MM AIR-1 implements these required BMPs the thresholds for PM\(_{10}\) and PM\(_{2.5}\) are raised to the higher value as shown in Tables 3.2-1 and 3.2-5. As shown in Table 3.2-5, the proposed Project’s unmitigated estimated construction emissions are well below the 80 pounds per day threshold for PM\(_{10}\) and the 82 pounds per day threshold for PM\(_{2.5}\) with projected emissions of 22.3- and 12.8- pounds per day, respectively. Also, estimated emissions are also below the 85 pounds per day threshold for NO\(_x\) with a projected emissions estimate of 65.5- pounds per day.

Although the proposed Project would temporarily cause localized increases in emission levels, the Project would be less than the SMAQMD thresholds of significance for all criteria pollutants (Table 3.2-5, CalEEMod 2017). The proposed Project construction would occur over two years and as such increases to criteria pollutants would be temporary and minimal. While construction emissions for criteria pollutants are below significance thresholds, Project construction activities still have the potential to generate fugitive dust. In order to comply with SMAQMD Rule 403 and the PM\(_{10}\) Implementation/Maintenance Plan, MM AIR-1: Dust Control Measures would be required to limit potential impacts from fugitive dust emissions. MM AIR-1 includes watering exposed soils and off-site transport of soils, as well as watering and speed limits on dirt roads. These measures would effectively limit emissions of fugitive dust from Project construction activities and ensure that the proposed Project would not conflict or obstruct the applicable air quality plans.

Air emissions generated from operations and maintenance would be minimal since operation would only involve occasional (likely not more than a couple times a year) operation of the water vault and inspection of the system and would not obstruct or conflict with an applicable air quality plan. As such, it is anticipated that operational impacts to air quality would be less than significant.
Based on the factors presented above, the proposed Project would be consistent with the goals of the SMAQMD through the implementation of MM AIR-1. Therefore, impacts are less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM AIR-1

### Impact AIR-2

**Potential to violate an air quality standard or contribute substantially to an existing or projected air quality violation.**

**Impact AIR-2 Analysis**

In order to assess the proposed Project’s potential to contribute to an existing or projected air quality violation, localized criteria pollutant emissions were analyzed since these are the pollutants with established ambient air quality standards. Particulate matter emissions, primarily PM$_{10}$, are of concern during construction because of potential fugitive dust emissions during earth-disturbing activities and result in localized pollutant concentrations. The SMAQMD has not established significance thresholds specifically for fugitive dust emissions, but has adopted a threshold for total PM$_{10}$ of 80 lbs/day (see Table 3.2-1 above) when applicable BMPs included in MM AIR-1 are implemented. This threshold includes emissions from both fugitive dust and PM emissions from vehicles. All PM$_{10}$ emission estimates for the proposed Project were below the SMAQMD significance thresholds (See Table 3.2-5 above). However, to ensure that localized PM emissions do not contribute significantly to the existing State exceedance of PM$_{10}$, MM AIR-1 would include the preparation of a Construction Emissions and Dust Control Plan to mitigate for emissions generated during construction activities by limiting the amount of fugitive dust generated. Operation activities would be similar to existing conditions; therefore, no long-term impacts to air quality or violations of air quality standards would occur. Potential impacts to air quality standards or contribution to an existing or projected air quality violation are considered less than significant with MM AIR-1 incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM AIR-1

### Impact AIR-3

**Potential to 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).**

**Impact AIR-3 Analysis**

Sacramento County is currently in non-attainment for State and Federal Ozone, State PM$_{10}$, and Federal PM$_{2.5}$. As a result, an incremental increase in background ozone, or PM levels would be considered a significant impact. The SMAQMD guidelines state that “if a project’s emissions would be less than the
threshold levels, the project would not be expected to result in a cumulatively considerable contribution to the significant cumulative impact" (SMAQMD 2009b). The threshold for NOx is 85 pounds per day, PM$_{10}$ is 80 pounds per day, and PM$_{2.5}$ is 82 pounds per day. The CalEEMod predicted unmitigated operational emissions below these thresholds (See Table 3.2-5 above). Since the emission levels are not predicted to go above the thresholds stated in the SMAQMD, there would be a less than significant impact to cumulatively considerable net increases of any criteria pollutant.

Air emissions generated from operations and maintenance would be minimal since operation would only involve occasional (likely not more than a couple times a year) operation of the dewatering pumps and inspection of the system and would not result in a cumulatively considerable net increase of any criteria pollutant. As such, there would be a less than significant impact to cumulatively considerable net increases of any criteria pollutant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

<table>
<thead>
<tr>
<th>Impact AIR-4</th>
<th>Potential to expose sensitive receptors to substantial pollutant concentrations.</th>
</tr>
</thead>
</table>

**Impact AIR-4 Analysis**

The proposed Project construction involves operating heavy equipment and construction activities that would temporarily produce additional dust and air emissions. Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest receptors in the vicinity of the proposed Project area that could be affected by construction generated air emissions are Park users, the Tiny Tots Daycare located adjacent to the rose garden, and residences located along McKinley Boulevard, 33rd Street, H Street, and Alhambra Boulevard. Additionally, Sutter Middle School is located approximately 0.10 miles from propose Project site and Lincoln Law School is approximately 0.22-miles from the site.

**Fugitive Dust**

Fugitive dust is typically generated during earth moving activities such as grading and excavation. Fugitive dust can cause health concerns when airborne due to potential inhalation. As discussed in Impacts AIR-1 and AIR-2, in order to minimize potential impacts from fugitive dust, MM AIR-1 would be implemented, which includes watering exposed soils and soils being transported off-site, as well as watering and speed limits on dirt roads. These measures would effectively limit emissions of fugitive dust from Project construction activities and ensuring the potential to expose sensitive receptors to substantial fugitive dust concentrations are less than significant.
TACs

The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure.

Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. The SMAQMD has established screening levels as conservative indicators that a project would not result in significant emissions of TACs. The screening level relevant to the proposed Project includes: Construction emissions of NOx that meet the significant thresholds of maximum daily emissions of 85 pounds per day. Thus, because the Project would not exceed the SMAQMD significance thresholds for NOx, the Project would not result in significant emission of TACs (see Table 3.2-5) and therefore would not have the potential to expose sensitive receptors to TAC concentrations.

California Public Resources Code, section 21151.4, requires that projects located within one-fourth of a mile of a school that might reasonably be anticipated to emit hazardous air emissions, or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the State threshold quantity specified pursuant to subdivision (j) of section 25532 of the Health and Safety Code, that may pose a health or safety hazard to persons who would attend or would be employed at the school would either need to consult with the school or give written notification to the school. Tiny Tots Daycare is located immediately south to the Project site within McKinley Park, Sutter Middle School is located within 0.10 miles of McKinley Park, and Lincoln Law School is located within 0.22-miles of the proposed Project site. However, because the TAC levels generated by the proposed Project construction would be below the SMAQMD significance thresholds, the Project would not pose a significant hazard to sensitive receptors and no consultation or noticing to the school would be required and no further screening mechanisms are required.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Construction of the proposed Project would temporarily increase traffic volumes on streets near the Project site; therefore, the proposed Project would be expected to increase local CO concentrations during construction. Concentrations of CO approaching the ambient air quality standards are only expected where background levels, traffic volumes, congestion levels are high. The proposed Project would generate approximately 4,722 total hauling trips throughout Project construction. Although hauling and construction worker vehicle trips would cause a temporary increase in traffic during Project construction, these additional trips would not result in a significant increase to congestion on local roadways since construction traffic would be intermittent and staggered in timing from residential and other local traffic in the area. Therefore, the proposed Project would not have the potential to expose sensitive receptors to substantial concentrations of localized CO.
Asbestos

The Project site is located in an area mapped as having a low likelihood of containing ultramafic rock, serpentine, or naturally occurring asbestos (California Geologic Survey 2011). However, based on the alluvial nature of the Project site there is the potential for naturally occurring asbestos deposits to have settled in the historic river deposits creating a slightly higher potential for construction of the proposed Project to encounter naturally occurring asbestos. Additionally, historic drawings indicate that there is a potential for asbestos containing irrigation pipelines to occur directly within the Project footprint. These pipelines would likely need to be removed during construction activities and replaced with non-asbestos containing materials once construction is complete. MM HAZ-1 and MM AIR-1 would be required to reduce the potential for exposure of nearby sensitive receptors to airborne asbestos particles. These mitigation measures include compliance with state and local regulations pertaining to handling, transport, and disposal of asbestos containing materials, reducing the impact to a less than significant level.

Therefore, the proposed Project would have a low potential to expose sensitive residences or schools to substantial concentrations of pollutants including fugitive dust, TACs, localized CO, or asbestos with the incorporation of MM AIR-1 that limits fugitive dust emissions and MM HAZ-1 which reduces the exposure of the public and the environment from asbestos specifically. Therefore, the proposed Project would have a less than significant impact with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM AIR-1, MM HAZ-1

Impact AIR-5 Potential to create objectionable odors affecting a substantial number of people.

Impact AIR-5 Analysis

While offensive odors rarely cause any physical harm, they can still be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SMAQMD. The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source, the design and ability for noxious odors to be generated in the first place, the wind speed and direction, and the sensitivity of the receptor. The nearest sensitive receptors in the vicinity of the Project site who could be affected by odors are the users of the Park, nearby residences, and Tiny Tots daycare.

Diesel fumes from construction equipment are often found to be objectionable; however, operation of diesel equipment on site is short term and intermittent and construction is temporary. Operation of diesel equipment would be in compliance with Federal, State, and local regulations, including compliance with all applicable SMAQMD rules and regulations as part of the construction specifications, which would limit construction-related odorous emissions. Therefore, construction of the proposed Project would not be expected to create objectionable odors affecting a substantial number of people and would have a less than significant impact.
Noxious odors associated with combined sewage systems are generally created when the dissolved oxygen content of the water decreases (becomes anoxic). When the water becomes anoxic and there are no oxygen molecules to oxidize the sulfates in the combined sewage they are reduced by combining with hydrogen to form hydrogen sulfide (H₂S) (or that odor that smells like rotten eggs). Typically, hydrogen sulfides (and other mercaptans) are formed during low flow conditions or when the water in the sewer is flowing so slowly that it is not being aerated and goes anoxic. These odor-generating compounds then tend to settle with the sewage solids on the bottom of the sewer system as flows decrease. When the flows increase the solids are stirred up releasing the odor-causing compounds into the air where they find their way up through manholes or other places where the gases can be released to the atmosphere.

It is not anticipated that the proposed Project would cause odors beyond those which currently exist since the combined sewer system is already present in the immediate vicinity of the proposed Project and is currently vented to street level through manholes surrounding McKinley Park. Other storage facilities throughout the City, like the one at University of California, Davis Medical Center, are similar to the proposed Project and, to date, have not required the use of the incorporated odor control system (Per. comms. City of Sacramento Department of Utilities 2018). The operation of similar facilities without generation of noxious odors indicates that operational conditions of the proposed Project would be similar. The design of the proposed Project would provide storage of combined sewage and stormwater only during storm events when the combined sewage would already be highly diluted from large volumes of stormwater. The storm conditions dilute the sewage present in the system and assist in flushing any settled solids which would further decrease the potential for the creation of hydrogen sulfide or noxious odors. The proposed Project would be operated in such a way to reduce the generation odors. Within 24-hours of a wet weather event, the facility would be pumped out, reducing the time that stored waters can become anoxic, which would help prevent the generation of noxious odors. Even during times when the storage facility is empty and idle, the risk of untreated air escaping is considered unlikely since the facility would maintain a constant negative pressure. The facility would be monitored regularly for efficiency and to replace worn down and ineffective equipment. Additionally, the proposed Project design includes an odor control as described in Chapter 2.0 that would filter air with granular activated carbon (GAC) for absorption of odorous compounds. Therefore, the potential for the proposed Project to generate objectional odors is considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

### 3.2.4 Mitigation Measures

See Mitigation Measure HAZ-1.

**Mitigation Measure AIR-1: Prepare a Construction Emission and Dust Control Plan**

The City of Sacramento shall require that the selected contractor prepare and implement a project Construction Emission and Dust Control Plan prior to construction that complies with the Sacramento Air Quality Management District (SMAQMD) rules and policies as well as the goals and policies of the
general plans associated with the propose Project. The Construction Emissions and Dust Control Plan shall at a minimum include:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.

- Limit vehicle speeds on unpaved roads to 15 miles per hour (MPH).

- All roadways, driveways, sidewalks parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

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

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

If asbestos containing materials are found to occur in the irrigation pipelines within the Project area, the appropriate state and local regulations would be followed in order to prevent airborne exposure to the public or the environment. Specifically, Rule 902, which is regulated and enforced by the Sacramento Metropolitan Air Quality Management District, would be followed to prevent dust emissions which may include asbestos. Additionally, the California Air Resources Board (CARB) Asbestos Airborne Toxic Control Measure (ATCM) shall be followed for any naturally occurring asbestos that could potentially be in the Project area. The ATCM requires that either an Asbestos Dust Mitigation Plan (ADMP) be developed for the Project or a Geologic Evaluation be conducted to test out of the ATCM requirements. These rules, in conjuncture with the other provisions in this mitigation measure, would effectively reduce the potential for airborne emissions of asbestos.

The following shall also be submitted to the SMAQMD, shall be included in the Dust and Emissions Control Plan, and shall be placed as Notes on the Grading or Improvement Plans:

Prior to approval of Grading or Improvement Plans (whichever occurs first), the City shall submit a Construction Emission and Dust Control Plan to the SMAQMD. If the SMAQMD does not respond within twenty (20) days of the plan being accepted as complete, the plan shall be considered approved. The City shall not break ground prior to receiving SMAQMD approval, of the Construction Emission and Dust Control Plan, and delivering that approval to the City.
3.3 BIOLOGICAL RESOURCES

This section describes the environmental and regulatory setting for biological resources. It also describes impacts on biological resources that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.3.1 Regulatory Framework

Federal, State, County of Sacramento (County), City of Sacramento (City) require the protection of plant and wildlife species, their habitats, and other biological resources. The regulatory setting outlines the laws and regulations relevant to proposed Project.

3.3.1.1 Federal

Clean Water Act: Section 401

The United States Environmental Protection Agency (USEPA) regulates surface water quality in Waters of the United States (WOTUS) under Section 401 of the State Clean Water Act (CWA). CWA Section 401 Water Quality Certification (WQC) provides states and authorized tribes with an effective tool to help protect the physical, chemical, and biological integrity of water quality, by providing them an opportunity to address the aquatic resource impacts of federally issued permits and licenses. CWA 401 compliance is required for any project that produces a federal action with construction that could have an impact to surface water quality (USEPA 2017).

Clean Water Act: Section 404

The United States Army Corps of Engineers (USACE) and the USEPA regulate the discharge of dredge or fill material into WOTUS under Section 404 of the CWA (USEPA 2016). If a project discharges any fill materials into WOTUS, including wetlands, before and after the project actions, then a CWA 404 compliance must be met with the USACE.

Endangered Species Act of 1973

The Federal Endangered Species Act (FESA) was passed by Congress in 1973 to protect and recover imperiled species and the habitat upon which they depend. The FESA is administered by the United States Fish and Wildlife Service (USFWS). Under the FESA, protected species are either listed as “endangered”, in danger of extinction throughout all or a significant region of the species range; or as “threatened”, likely to become endangered within the near future (USFWS 2015). “‘Take’ is to hunt, pursue, catch, capture, or kill; or attempt to hunt, pursue, catch, capture, or kill” an endangered or threatened species. The FESA also designates “candidate” species as those plants and animals that the USFWS has sufficient data on their biological status to propose them to be listed under the FESA (USFWS 2015).

The FESA mandates the protection of Federally listed species and the habitats which they depend (50 Code of Federal Regulations [CFR] 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various
notices in the Federal Register for proposed species) (LII 2017b). Consultation with the USFWS would be necessary if a proposed project has the potential to affect federally listed species, as well as suitable habitat for those species. This consultation would proceed under Section 7 of the FESA if a federal action is part of the proposed project, or proceed through Section 10 of the FESA if no such nexus were available (USFWS 2015).

Migratory Bird Treaty Act of 1918 and Bald and Gold Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (BAGEPA) (16 USC Section 668) protect specific species of birds and prohibits “take” (i.e., harm or harassment) (LII 2017a). The MBTA protects migrant bird species from “take” through setting hunting limits and seasons, and protecting occupied nests and eggs (USFWS 2017b). BAGEPA prohibits the take or commerce of any part of the bald or golden eagle (USFWS 2017b). The USFWS administers both acts and reviews actions that may affect species protected under each act.

3.3.1.2 State

California Endangered Species Act

The California Endangered Species Act (CESA) prohibits “take” of State-listed threatened or endangered species under sections of the California Department of Fish and Game (CDFG) Code 2050-2116). The California Department of Fish and Wildlife (CDFW) has jurisdiction over these protected plant and wildlife species listed as threatened or endangered under section 2080 of the CDFG Code. The CESA differs from the FESA in that it does not include habitat destruction in its definition of “take.” CDFW defines “take” as “…hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CDFW may authorize “take” under the CESA through Section 2081 of the CDFG Code. If the results of a biological survey indicate that a state-listed species could be affected by a proposed project, then under Section 2081, CDFW could authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met (CDFW 2017a). In addition to listed-Threatened or Endangered species CDFW maintains lists for Candidate-Endangered Species and Candidate-Threatened species that are afforded the same level of protection as listed species.

California Environmental Quality Act Guidelines: Section 15380

Pursuant to CEQA Guidelines section 15380, CEQA provides protection for Federal and/or State listed species, as well as species not listed Federally or by the State that may be considered rare, threatened, or endangered. Accordingly, “A species not included in any listing identified in subdivision (c) [FESA and CESA listed species] shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subdivision (b)” (CEQA Guidelines section 15380(d)). Subdivision (b) states, “A species of animal or plant is:

1) “Endangered” when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or
2) "Rare" when either:

a. Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

b. The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered “threatened” as that term is used in the Federal Endangered Species Act." (CEQA Guidelines 15380(b)).

c. Indicates that species of special concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

The CDFW designates Species of Special Concern (SSC) as wildlife and plant species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, and/or educational values qualifying SSC as "special status species" meeting the criteria under subdivision (b) of section 15380 of the CEQA Guidelines. Plants appearing on California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) as well as species considered rare or protected under other applicable list are also considered to meet CEQA's Section 15380 criteria.

For the purposes of this Draft EIR, the following parameters define 'special-status species':

- Plant and Wildlife species listed, or proposed for listing, as threatened, or endangered under the FESA (50 CFR 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register for proposed species);

- Plant and wildlife species that are listed or proposed for listing by the State as threatened or endangered under the CESA (14 CCR 670.5);

- Plant and wildlife species that meet the definitions of “rare” or “endangered” under CEQA Guidelines, Section 15380;

- Plant and wildlife species that are designated as “special animals” or “those of greatest conservation need”, by CDFW through the California Natural Diversity Database (CNDDB);

- Wildlife Species of Special Concern to CDFW;

- Wildlife listed as “Fully Protected” in California under the CDFG Code;

- Plants listed as rare under the State Native Plant Protection Act (NPPA) of 1977 (CDFG Code 1900 et seq.);

- Plants considered by the CNPS to be Rank 1A- “plants presumed extirpated in California and either rare or extinct elsewhere”, or Rank 1B- “rare, threatened, or endangered in California and elsewhere”;
Plants considered by CNPS to be a Rank 2A- Plants presumed extirpated in California, but common elsewhere”, or Rank 2B- “rare, threatened, or endangered in California and common elsewhere”;

Plants considered by CNPS to be a Rank 3- “plants about which more information is needed” and cannot be yet be excluded from review”; and

Plants considered by CNPS to be a Rank 4- “plants with limited distribution”.

The CEQA provision enables an agency to protect a species from potential significant project impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CDFW 2017b). To assess “impact significance” to populations of non-listed species as well as listed species CDFW recommends population-level effects, proportion of the taxon’s range affected by a project, regional effects, and impacts to habitat features are all considered (CDFW 2017b).

Native Plant Protection Act: California Department of Fish and Game Code Section 1900 et seq.

The NPPA was enacted in 1977 and is administered by CDFW (CDFG Code, Section 1900 et seq.). The NPPA prohibits “take” of endangered, threatened, or rare plant species native to the State, with the exception of special criteria identified in the NPPA CDFG Code. A “native plant” means a plant growing in a wild uncultivated state which is normally found native to the plant life of the state. “Rare” species can be defined as species that are: broadly distributed but never abundant where found, narrowly distributed, or clumped yet abundant where found, and/or narrowly distributed or clumped and not abundant where found. If potential impacts are identified for a proposed project activity, then consultation with CDFW, permitting, and/or other mitigation may be required (CNPS 2017a).

Nesting Migratory Birds and Raptors: California Department of Fish and Game Code Sections 3503, 3503.5, and 3800

Nesting migratory birds and raptors are protected under CDFG Code, Sections 3503, 3503.5 and 3800; which prohibit the “take”, possession, or destruction of birds, their nests, or eggs. Implementation of “take” provisions require that any potential project-related disturbance, within active nesting territories, be reduced or eliminated during critical phases of the nesting cycle (i.e., approximately February 15 through August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young), or the loss of habitat upon which birds are dependent, is considered "taking", and is potentially punishable by fines and/or imprisonment (CLI 2017). Such taking would also violate federal law protecting migratory birds under the MBTA.

Oak Protection and Oak Woodlands Conservation Act: Public Resource Code Section 21083, California Department of Fish and Game Code Section 1360-1372

The 2005 CDFG Code Section 1360-1372 outlines the terms and conditions comprising the California Oak Woodlands Conservation Act (OWCA). An oak woodland is defined as an oak stand with greater than ten percent canopy cover, or that may have historically supported greater than ten percent canopy cover. The overall purpose of the OWCA is to provide funding for the conservation and protection of
California’s oak woodlands (CLI 2015-2016)). In addition, the OWCA is designed to support and encourage voluntary, long-term private stewardship and conservation of California’s oak woodlands by offering landowners financial incentives to protect and promote biologically functional oak woodlands over time, as mandated by the Wildlife Conservation Board (WCB). The WCB has established programs, including the California Oak Woodlands Conservation Program (OWCP), to protect and restore oak woodlands. The OWCA encourages and defers to local jurisdictions to develop and implement oak conservations plans developed under the OWCA (WCB 2017).

Furthermore, the California Public Resources Code (PRC) Section 21083.4 defines an oak as a native tree species in the genus *Quercus*, not designated as commercial species (i.e., Groups A and B) pursuant to regulations adopted by the State of California Board of Forestry and Fire Protection (BFFP) (i.e., Section 4526), that is five inches or more in Diameter at Standard Height (DSH) (i.e., diameter of a tree measured 4.5 feet above natural grade). As part of the determination made pursuant to PRC Section 21080.1, a city shall determine whether a project within its jurisdiction may result in oak tree impacts and or a conversion of an oak woodland that will have a significant effect on the environment. If a city determines that there may be a significant effect, then the county shall require mitigation (Westlaw 2017).

Other California Tree Protection Regulations

Additional State laws that regulate and/or protect oaks, oak woodlands, and other tree species include: The Professional Forester’s Law (PFL); the CEQA; and the State BFFP. PFL addresses oak habitat evaluations. CEQA addresses that “[a city] … shall determine whether a project within its authority may result in a conversion of oak woodland that will have a significant effect on the environment.” CEQA also provides protection to federal and/or State tree species that may be considered special-status. Thus, both PFL and CEQA apply to all local jurisdictions. The BFFP has regulatory authority over all of California’s forested landscapes, including the authority to regulate oak woodlands at the State or local level.

Porter-Cologne Water Quality Control Act: California Department of Fish and Game Code Section 1601-1602

The Porter-Cologne Water Quality Act, CDFG Code sections 1601-1607, is administered by the California State Water Resources Control Board (SWRCB). This act and associated and codes pertain to projects with potential impacts to water quality or waterways (SWRCB 2017).

3.3.1.3 Local

City of Sacramento Tree Ordinance: Sacramento City Code 12.56

The City has adopted regulatory policies for the preservation, protection, and maintenance of the existing trees within the City. Sacramento City Code (CC) 12.56 was amended and adopted by the City Council on August 4, 2016.

Work-on and/or the removal of city trees or private protected trees requires prior approval in the form of a City of Sacramento Tree Permit (City Tree Permit). City trees are characterized as trees partially or completely located in a City park, on City owned property, or on a public right-of-way (ROW), including
any street, road, sidewalk, park strip, mow strip or alley. For City trees located within City Park, the Director of the City Youth, Parks & Community Enrichment Department handles approvals for tree removal. For all other City trees located on City property or within the ROW, the City Director of Public Works handles approvals. City Code section 12.56.040 includes specific requirements for notice and hearing for removal of city trees.

Private protected trees are defined as trees designated to have special historical value, special environmental value, or significant community benefit, and are located on private property. In addition, private protected trees include: 1) native trees at 12 inches DSH (i.e., coast live, interior, valley and blue oaks (*Quercus* spp.), California sycamore (*Platanus racemosa*), and buckeye (*Aesculus californica*); 2) all trees at 32 inches DSH with an existing single family or duplex dwelling; and 3) all trees at 24 inches DSH on undeveloped land or any other type of property such as commercial, industrial, and apartments (City of Sacramento 2017b).

City of Sacramento 2035 General Plan

The City of Sacramento’s biological resources goals and policies are set forth in the Environmental Resources (ER) Element the General Plan and are as follows:

**Goal ER 2.1. Natural and Open Space Protection.** Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

**Policy ER 2.1.1. Resource Preservation.** The City shall encourage new development to preserve on-site natural elements that contribute to the community’s native plant and wildlife species value and to its aesthetic character.

**Policy ER 2.1.4 Retain Habitat Areas.** The City shall retain plant and wildlife habitat areas where there are known sensitive resources (e.g., sensitive habitats, special-status, threatened, endangered, candidate species, and species of concern). Particular attention shall be focused on retaining habitat areas that are contiguous with other existing natural areas and/or wildlife movement corridors.

**Policy ER 2.1.8 Oak Woodlands.** The City shall preserve and protect oak woodlands, heritage oaks, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species, and shall address all adverse impacts on oak woodlands in accordance with the City’s Heritage Tree Ordinance.

**Policy ER 2.1.10 Habitat Assessments.** The City shall consider the potential impact on sensitive plants and wildlife for each project requiring discretionary approval. If site conditions are such that potential habitat for sensitive plant and/or wildlife species may be present, the City shall require habitat assessments, prepared by a qualified biologist, for sensitive plant and wildlife species. If the habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level surveys shall be conducted (where survey protocol has been established by a resource agency), or, in the absence of established survey protocol, a focused survey shall be conducted consistent with industry-recognized best practices; or (2) suitable habitat and presence of the species
shall be assumed to occur within all potential habitat locations identified on the project site. Survey Reports shall be prepared and submitted to the City and the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS) (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.

Goal ER. 3.1. Urban Forest. Manage the city’s urban forest as an environmental, economic, and aesthetic resource to improve Sacramento residents’ quality of life.

Policy ER 3.1.2 Manage and Enhance the City’s Tree Canopy. The City shall continue to plant new trees, ensure new developments have sufficient right-of-way width for tree plantings, manage and care for all publicly owned trees, and work to retain healthy trees. The City shall monitor, evaluate and report, by community plan area and city wide, on the entire tree canopy in order to maintain and enhance trees throughout the City and to identify opportunities for new plantings.

Policy ER 3.1.3 Trees of Significance. The City shall require the retention of City trees and Heritage Trees by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or appropriate remediation.

3.3.2 Environmental Setting

The following environmental setting provides the baseline of regional and local physical and environmental conditions within the proposed Project area as it applies to biological resources.

3.3.2.1 Regional Setting

The proposed Project area is situated in the Sacramento Valley (i.e., part of the California Central Valley), is located between the north Coast and Sierra Nevada Mountain Ranges. Grasslands dominate the Sacramento Valley, with the major land uses being agricultural and urban. The proposed Project site is comprised of an urban park, with flat terrain, at 20-feet (65 meters) above mean sea level (asml). The area’s climate can be described as “Mediterranean”, with cool winter rainy seasons, and hot dry summers.

The CDFW and the CNPS standard classification system for floristically describing vegetation communities statewide, as compiled in A Manual of California Vegetation (MCV) - Second Edition, were used to assess the Project area for naturally occurring communities that may occur (Sawyer et. al. 2009). The State Fire and Resources Assessment Program (FRAP) multi-source land cover information system was also reviewed to classify land cover types within the proposed Project area.

For the Great Valley sub-unit, no natural biological communities (i.e., alliances) were identified using the MCV (CNPS 2017a). Native habitats are primarily located outside the City limits, can also be found along river and stream corridors, and other miscellaneous undeveloped parcels. For Sacramento bioregion, FRAP identifies the landcover type present at the proposed Project area as Urban (FRAP 2017) consisting of residential and commercial uses with sporadic ruderal-disturbed areas. The proposed
Project site is specifically an urban park, which is vegetated predominately with native tree species in the overstory, and non-native (ornamental) annual grasses in the understory. The uses surrounding the edges of the park and nearby community presents residences, public buildings and small businesses, asphalt, concrete, suburban gardens, and a systematic street pattern (USGS 2016).

Wildlife corridors and urban habitat (i.e., parks, gardens, etc.) provide migration channels and provide non-migrant wildlife to move within their home range for food, cover, and reproduction. Data on the locations and value of wildlife movement corridors specific within the proposed Project region are lacking; however, the proposed Project area (i.e., McKinley Park) serves as an urban habitat, specifically for birds, and other non-migrant wildlife, that can thrive in a synanthropic urban environment.

No hydrologic features are Present within the proposed Project site; however, a small pond is present on the western side of McKinley Park.

### 3.3.2.2 Study Methods

A desktop analysis and field survey were used to determine if plant species, wildlife species, and/or any other biological resources the presence, absence, and/or the potential to occur for special-status plant and wildlife species and other biological resources, and to evaluate their potential to be impacted by proposed Project activities.

#### Desktop Analysis

Prior to conducting reconnaissance observation field surveys, Stantec completed a desktop analysis to identify sensitive biological resources (e.g., wildlife species, plant species, biological communities) that may occur within the proposed Project area and region, as defined by the CDFW, USFWS, CNPS and Calflora. The following resources were used to identify those potentially occurring biological resources:

- CDFW CNDDB records search of special-status species and habitat observations in the proposed Project area and in the three miles surrounding the proposed Project area (Figure 3.3.1; CDFW 2015c);
- CNPS online Inventory of Rare and Endangered Plants of California for the Clarksburg, Davis, Florin, Grays Bend, Rio Linda, Sacramento East, Sacramento West, Saxon, and Taylor Mountain United States Geologic Survey (USGS) 7.5-minute Quadrangles (Quad) (CNPS 2017);
- USFWS Information for Planning and Consultation (iPaC) search for listed endangered, threatened, and candidate species that have the potential to be found on or near the proposed Project area (USFWS 2017a);
- USFWS Designated Critical Habitat (DCH) data for federally threatened and endangered species (USFWS 2015a); and
- Calflora online database for Sacramento County (Calflora 2017). Calflora was used as a secondary resource for assessing any and/or all other rare plant species that have the potential to occur within the proposed Project area of Sacramento County.
Field Studies

On April 27 and August 22, 2017, a qualified Stantec Arborist/ Botanist and a qualified Stantec Biologist conducted comprehensive arborist field surveys while making general reconnaissance observation surveys for rare plants, special-status wildlife, and associated habitat. The field surveys were conducted on ground-level and were based on the visual inspection within the proposed Project site and adjacent areas (e.g., within the Park area). A list of the plant and wildlife species observed during the field surveys are compiled in Table 3.3-1.

Table 3.3-1  Plant Species Observed During the General Reconnaissance Observation Surveys Conducted Within the Proposed Project Area

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>American sycamore</td>
<td><em>Plananus occidentalis</em></td>
</tr>
<tr>
<td>Austrian pine</td>
<td><em>Pinus nigra</em></td>
</tr>
<tr>
<td>Australian pine</td>
<td><em>Casuarina equisetifolia</em></td>
</tr>
<tr>
<td>black cottonwood</td>
<td><em>Populus trichocarpa</em></td>
</tr>
<tr>
<td>black locust</td>
<td><em>Robinia pseudoacacia</em></td>
</tr>
<tr>
<td>black oak</td>
<td><em>Quercus kellogii</em></td>
</tr>
<tr>
<td>Bradford pear</td>
<td><em>Pyrus calleryanana ’Bradford’</em></td>
</tr>
<tr>
<td>California coast redwood</td>
<td><em>Sequoia sempervirens</em></td>
</tr>
<tr>
<td>camphor</td>
<td><em>Cinnamomum camphora</em></td>
</tr>
<tr>
<td>chestnut oak</td>
<td><em>Quercus prinus</em></td>
</tr>
<tr>
<td>Chinese elm</td>
<td><em>Ulmus parvifolia</em></td>
</tr>
<tr>
<td>Chinese pistache</td>
<td><em>Pistacia chinensis</em></td>
</tr>
<tr>
<td>coast live oak</td>
<td><em>Quercus agrifolia</em></td>
</tr>
<tr>
<td>cork oak</td>
<td><em>Quercus suber</em></td>
</tr>
<tr>
<td>crape myrtle</td>
<td><em>Lagerstroemia indica</em></td>
</tr>
<tr>
<td>deodar cedar</td>
<td><em>Cedrus deodara</em></td>
</tr>
<tr>
<td>elm</td>
<td><em>Ulmus species</em></td>
</tr>
<tr>
<td>English oak</td>
<td><em>Quercus robur</em></td>
</tr>
<tr>
<td>fruitless mulberry</td>
<td><em>Morus alba</em></td>
</tr>
<tr>
<td>ginkgo</td>
<td><em>Ginkgo biloba</em></td>
</tr>
<tr>
<td>gray pine</td>
<td><em>Pinus sabiana</em></td>
</tr>
<tr>
<td>liquidambar</td>
<td><em>Liquidambar styraciflua</em></td>
</tr>
<tr>
<td>little leaf lindon</td>
<td><em>Tilia cordata</em></td>
</tr>
</tbody>
</table>
### Study Results

Special-status plant and wildlife species that are known to occur within three miles of the proposed Project area are shown below in Figure 3.3-1 Known Occurrences of Special-Status Species.
Sacramento City of Sacramento McKinley Water Vault Project

Figure 3.3.1
Biological Resources
Known Occurrences of Special Status Species

Legend

- Project Location
- 3 Mile Project Buffer
- Special-Status Species Vegetation & Habitat (CNDDB)
  (Common Name, Scientific Name, Fed Listing, State Listing)
  - Elderberry Savanna, *Sagittaria sanfordii*, None, None
  - Great Valley Cottonwood Riparian Forest, None, None
  - Sanford's arrowhead, *Sagittaria sandfordii*, None, None

Special-Status Species Wildlife (CNDDB)
(Common Name, Scientific Name, Fed Listing, State Listing)
- Cooper's hawk, *Accipiter cooperii*, None, None
- Burrowing owl, *Athene cunicularia*, None, Threatened
- Hoary bat, *Lasiurus cinereus*, None, None
- Least Bell's vireo, *Vireo bellii pusillus*, Endangered, Endangered
- Longfin smelt, *Spirinchus thaleichthys*, Candidate, Threatened
- Sacramento splittail, *Pogonichthys macrolepidotus*, None, None
- Sacramento Valley tiger beetle, *Cicindela artificiosa abrupta*, None, None
- Steelhead - Central Valley DPS, *Oncorhynchus mykiss irideus*, Threatened, None
- Swainson's hawk, *Buteo swainsoni*, None, Threatened
- Vernal pool fairy shrimp, *Branchinecta lynchi*, Threatened, None
- White-tailed kite, *Elanus leucurus*, None, None
- Song sparrow ("Modesto" population), *Melospiza melodia*, None, None
- Western yellow-billed cuckoo, *Coccyzus americanus occidentalis*, Threatened, Endangered
- White-tailed kite, *Elanus leucurus*, None, None
- Vernal pool fairy shrimp, *Branchinecta lynchi*, Threatened, None
- White-tailed kite, *Elanus leucurus*, None, None
- Song sparrow ("Modesto" population), *Melospiza melodia*, None, None
- Western yellow-billed cuckoo, *Coccyzus americanus occidentalis*, Threatened, Endangered
Based on the results of the background research listed above in Study Methods above, 68 special-status plants (46) and wildlife (22) species, not including raptors and migratory birds, have been identified as having the potential to occur within the proposed Project region (e.g., in USGS 7.5-minute Quads Clarksburg, Davis, Florin, Grays Bend, Rio Linda, Sacramento East, Sacramento West, Saxon, and Taylor Mountain; and/or Sacramento County). This includes special-status plant and wildlife species that are known to occur within three miles of the proposed Project area, or have the potential to occur based on background research data from the CDFW CNDDDB, CNPS online inventory, Calflora, and USFWS list of Federal Endangered and Threatened Species.

For each special-status species known to occur in the proposed Project region, the “potential for occurrence” within the proposed Project area has been evaluated and is defined as follows:

- **Very Low to Nil**: The proposed Project area and/or immediate area do not support suitable habitat for a particular species. Proposed Project is outside the species known range.

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

- **Moderate Potential**: The proposed Project area and/or immediate area provide suitable habitat for a particular species, and habitat for the species may be impacted.

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

- **Present**: Recorded historically or observed on site during biological surveys for the proposed Project.

Special-status species with a moderate potential, high potential, or determined to be present based on the desktop and field survey are included in Table 3.3-1. Conclusions in Table 3.3-1 regarding the habitat suitability and the potential for species occurrence were based on the background research, database searches, site surveys, and local habitat suitability. Species with low, very low, or Nil potential to occur were omitted from further analysis due to the absence of suitable habitat or determined lack of presence on site. Of the 68 special-status species identified within three miles of the of the proposed Project site only one bird species (Cooper’s hawk) and one mammal species (hoary bat) were identified along with migratory birds to have potential to occur on the Project site. None of the potential 46 plants species and none of the 20 amphibian, crustacean, fish, insect, or reptile wildlife species were found to have potential to occur on the Project site.
### Table 3.3-2 Special-Status Plant and Wildlife Species with the Potential to Occur on the Proposed Project Site

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Legal Status</th>
<th>Geographic Distribution/Floristic Province</th>
<th>Preferred Habitat</th>
<th>Identification Period</th>
<th>Level of Potential for Occurrence Within Proposed Project Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper's hawk</td>
<td>Accipiter cooperi</td>
<td>None None N/A</td>
<td>Breeds throughout California, but is not common anywhere in the state</td>
<td>Nest sites mainly in riparian growths of deciduous trees, including in canyon bottoms on river floodplains and in live oaks</td>
<td>Year-round</td>
<td>Moderate. There is moderate suitable habitat within the proposed Project area. There are two known occurrences within the proposed Project area; specifically, near the Natomas East Main Drainage Canal and in the vicinity of 21st and H Street (CDFW 2017c).</td>
</tr>
<tr>
<td>nesting raptors and other migratory birds</td>
<td>(various)</td>
<td>BCC BCC N/A</td>
<td>Migrants</td>
<td>Tree, shrub, ground, and riparian vegetation (nesting)</td>
<td>February 15 - August 31</td>
<td>Moderate. The proposed Project site provides small amounts of potential suitable nesting habitat.</td>
</tr>
<tr>
<td>Hoary bat</td>
<td>Lasiurus cinereus</td>
<td>None None N/A</td>
<td>Throughout California from sea level to 4125 meters (13200 feet)</td>
<td>Dense foliage, medium to large trees; open habitats or habitat mosaics, with access to trees for cover</td>
<td>Year-round depending on location and temperatures</td>
<td>Moderate. There is moderate suitable habitat within the proposed Project area. There is one known occurrence within three miles of the proposed Project area, specifically in the vicinity of West Sacramento (CDFW 2017c).</td>
</tr>
</tbody>
</table>

**Federal (USFWS)**

- E = Listed as endangered under the FESA
- T = Listed as threatened under the FESA
- D = Delisted under the FESA
- PD = Proposed for delisting
- C = Candidate to become a proposed species
- MB = MBTA
- BCC = Bird of Conservation Concern
- = No listing

**State (CDFW)**

- E = Listed as endangered under the CESA
- T = Listed as threatened under the CESA
- R = Listed as rare under the California NPPA
- CE = Candidate species for listing as endangered under the CESA
- FP = Fully protected species
- SSC = Species of special concern in California
- BCC = Bird of Conservation Concern
- = = No listing.

**State CNPS**

- 1B = Rank 1B species: rare, threatened, or endangered in California and elsewhere
- 2B = Rank 2B species: rare, threatened, or endangered in California but more common elsewhere
- 3 = Rank 3 species: plants about which more information is needed to determine their status
- 4 = Rank 4 species: plants of limited distribution
Special-Status Plant Species

Based on desktop research and database records searches, three special-status plant species were identified as having a low potential to occur at the proposed Project area. Potential to occur at the proposed Project site was based on background research, records searches, elevation, evaluation of habitat, and soils present on site. These species include Monterey Pine (*Pinus radiata*), Northern California Black Walnut (*Juglans hindsii*), and Southern California Black Walnut (*Juglans californica*). Of these three species, none have been documented within three miles of the proposed Project site (CDFW 2017c). Further, it was verified that none of these species were present at the Project site during the general reconnaissance observation surveys and as documented in the Arborist Study for the proposed Project (City of Sacramento 2017a).

Special-Status Wildlife Species

Twenty-two special-status wildlife species were identified as potentially occurring in the proposed Project area based on desktop research, records search, and habitat assessment. Of those 22-wildlife species identified, two have been identified with moderate potential to occur in the proposed Project area, not including nesting raptors and other migratory birds. These two species include hoary bat and Cooper’s hawk, which have known occurrences within three miles of the proposed Project area (CDFW 2017c). The song sparrow also had one occurrence within three miles of the proposed Project in West Sacramento however suitable habitat was not observed on the Project site. No special-status wildlife species were observed during site surveys. Species accounts for special-status wildlife species with a moderate potential to occur in the proposed Project area are provided below.

**Cooper’s Hawk (Accipiter cooperii)- Federal No Status, State Watch List**

The Cooper’s hawk (*Accipiter cooperii*) is protected under the MBTA and is designated as a Watch List Species by CDFW. Cooper’s hawk can be found in wooded areas throughout most of the state of California. Although commonly observed in residential areas, they prefer dense stands of live oak, riparian deciduous, and other forest types near water. They breed primarily in the Sierra foothills ranging from sea level up to 9,000 feet (2,743 meters) (Zeiner et al. 1980-1999).

Breeding typically occurs from March through August. The female incubates two to six eggs for 35-65 days while the male provides food. Cooper’s hawk prey primarily on small birds, mammals, as well as reptiles and amphibians in wooded areas. Some individuals further north or those in higher elevations within their range will migrate south or downslope during the winter, but Cooper’s hawk are mostly yearlong residents in California (Zeiner et al. 1980-1999a).

**Hoary Bat (Lasiurus cinereus)- Federal No Status, State No Status**

The hoary bat is the most widespread of all North American bat species and can occur throughout the entire state of California (WBWG 2017). A migratory species, they breed inland and north of their winter range, which in California, includes both coastal areas and southern California (Zeiner et al. 1980-1999b). One to four pups are born from mid-May 1 through early July 31 following spring migration, and the young are capable of flight at approximately 33 days old.
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Hoary bats may be found at elevations from sea level up to 13,200 feet (4,023 meters), and typically breed and bear young in all woodland and forest habitats with medium to large-sized trees and dense foliage. Hoary bats are solitary bats that roost primarily in medium to large trees, prefer both open habitats or habitat mosaics including trees for cover and forest edges to forest on their main prey species, moths (Zeiner et al. 1980-1999b). The hoary bat is designated as a Medium Priority species by the Western Bat Working Group (WBWG), a reputable group comprised of agencies, organizations, and individuals interested in bat research, management, and conservation from the 13 western states and provinces. The CNDDB tracks bat species that are designated as at least Low-Medium Priority in California.

Nesting Raptors and Other Migratory Birds

There is a moderate potential for occurrence of nesting raptors and other migratory bird species protected under the MBTA. In addition to Cooper’s hawk, the proposed Project area may present potential habitat for bird species protected under the MBTA.

Special-Status Habitats

Based on desktop research and database records searches, two sensitive vegetation communities/habitats were identified as occurring within the three miles of the proposed Project area. These habitats include elderberry savanna and great valley cottonwood riparian forest (CDFW 2013c). During general reconnaissance observation surveys, neither of these sensitive habitats were observed within or near the proposed Project area.

3.3.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant environmental impacts to biological resources. Where an impact finding is determined to be significant, an overview of mitigation measures have been identified that would reduce and/or avoid the potential for impact.

3.3.3.1 Methodology and Analysis

As discussed in the environmental setting, a combination of desktop research, field studies, and analysis were used to screen biological resources to establish baseline conditions of the proposed Project site. This baseline was then considered in combination with the proposed Project and CEQA Guidelines’ Environmental Checklist, Appendix G to establish thresholds of significance. These thresholds are evaluated in Section 3.3.3.2 to determine whether potential biological impacts from the proposed Project on the baseline setting (Section 3.3.2) would be significant. A potential impact would be significant if the proposed Project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or regulated by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
• 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 Wildlife or U.S. Fish and Wildlife Service;

• 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) through direct removal, filling, hydrological interruption, or other means;

• Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

• Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance or conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.3.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

| Impact BIO-1 | Potential to have a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or regulations, or regulated by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. |

Impact BIO-1 Analysis

Protected Botanical Species

No special-status botanical species have been observed on the proposed Project site (City of Sacramento 2017a) and further no special-status botanical species are known to occur within three-miles of the proposed Project site (CDFW 2013c). Monterey Pine (Pinus radiata), Northern California Black Walnut (Juglans hindsii), and Southern California Black Walnut (Juglans californica) were identified to have a low potential to occur within the proposed Project area, however, since they are all tree species, absence during site surveys reduces this potential to occur. Since the proposed Project site is a developed City park it is not suitable habitat for special-status plant species and the proposed Project would not have the potential to have a substantial adverse effect (either directly or indirectly) on special-status plant species. Therefore, there would be no impact to special-status plant species.

Level of Significance: No Impact

Mitigation Measure: None Required
Protected Wildlife Species and Their Habitat

The hoary bat has no state or federal status; however, it is designated as a Medium Priority species by the WBWG which recommends protection of maternal roosting sites during the nursery season. The habitat in and around the proposed Project site provides moderately suitable roosting habitat for the hoary bat (*Lasiurus cinereus*), which indicates there is a potential for the proposed Project to cause an impact if bats are determined to be present and/or the proper measures are not taken. Since there is one known occurrence of this species within three miles of the proposed Project area, specifically in the vicinity of West Sacramento, the range of the bat is close enough to the proposed Project site that it is possible the hoary bat would use the suitable habitat on the proposed site for roosting.

Removal of trees containing active bat roosts, particularly during the nursery season (approximately May 1 through September 30), could result in the loss of individual bats, bat colonies, and/or their habitat. While adult hoary bats may be able to escape during tree removal, if removal is to occur during the hoary bats’ nursery season, young bats that cannot yet fly are likely to be killed or injured during the vegetation removal process. Loss of individual bats, and disruption of maternity roosting bats resulting in the abandonment of young, or the loss of young, through vegetation removal and would be considered a potential significant impact. Project construction would require minimal, if any, tree removal and would likely only require minimal tree trimming along access routes and as such would likely not cause a direct impact to hoary bats or their habitat. However, the presence of potential habitat and the potential for indirect effect indicate the proposed Project could impact the hoary bat and its habitat. Implementation of MM BIO-1 Avoid and Protect Breeding and Roosting Bats would ensure any potential impact to the hoary bat or its habitat would be minimized to less than significant by requiring focused surveys to determine presence of roosting hoary bats and protections such as exclusion buffers during the non-nursery season.

Operations of the proposed Project would have a less than significant impact on the hoary bats. Once constructed, the proposed Project would be mostly underground except for the electrical control facility and the only operational impact could potentially be from maintenance workers periodically conducting system evaluations or maintenance which would not significantly impact the hoary bat.

Therefore, this impact would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM BIO-1

Migratory Birds and Raptors

The Park grasses, trees, and shrubbery in and around the proposed Project site provide moderate suitable foraging and nesting habitat for Cooper’s hawk (*Accipiter cooperii*) and other migratory birds or raptors. The potential presence of habitat and bird species indicates that the proposed Project has the potential to disturb protected raptor nests and other nesting migratory birds if nesting habitat is removed or construction occurs during the breeding season (generally from February 15 to August 31). Construction activities or vegetation removal could disturb occupied nests of migratory birds or raptors if the bird or raptors are able to nest are established prior to the startup of construction which could result in
nest abandonment and subsequent loss of eggs or young developing at active nests in or near the proposed Project area. Disturbance resulting in nest abandonment or loss of eggs would be considered a potential significant impact if vegetation removal is not timed appropriately. Implementation of MM BIO-2 Avoid Disturbance of Nesting Special-Status and Non-Special-Status Migratory Birds and Raptors would reduce this impact to less than significant by requiring surveys and construction buffers if construction occurs during nesting season and recommending the removal of vegetation outside of nesting season.

Operations of the proposed Project would have a less than significant impact on the Cooper’s hawk and other migratory birds or raptors. Once constructed, the proposed Project would be mostly underground except for the electrical control facility and the only operational impact could potentially be from maintenance workers periodically conducting system evaluations or maintenance which would not significantly impact Cooper’s hawk and other migratory birds or raptors.

Therefore, this impact would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM BIO-2

**Overall Impact BIO-1: Special-Status Species**

Overall, the proposed Project would require MM BIO-1 to protect the hoary bat and MM BIO-2 to protect Cooper’s hawk and other nesting migratory birds and raptors from potential impacts during Project construction. With incorporation of these measures, the proposed Project’s potential to cause a substantial adverse effect on a ‘special-status’ species is considered less than significant

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM BIO-1 and MM BIO-2

**Impact BIO-2**

| Potential to 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 Wildlife or U.S. Fish and Wildlife Service.

Impact BIO-2 Analysis

There are two sensitive vegetation communities or habitats known to occur within three miles of the proposed Project area. These include elderberry savanna and great valley cottonwood riparian forest (CDFW 2017c), however, there is no evidence of these communities on the proposed Project site since there is no riparian habitat within the proposed Project area. It has been verified during site surveys, that neither of these sensitive natural communities occur within or adjacent to the proposed Project area. Furthermore, the proposed Project area is a developed City Park with predominantly ornamental landscaping and non-riparian trees and not identified in any local, regional, State, or Federal plans or policies designed to protect riparian habitat or sensitive natural communities with no sensitive habitats.
present. Therefore, the proposed Project does not have the potential to impact to natural communities and/or riparian habitat.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

| Impact BIO-3 | Potential to 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. |

Impact BIO-3 Analysis

The proposed Project activities would not cause indirect or direct impacts to any Federal or State protected wetlands or waters as defined by Section 404 of the CWA (e.g., ponds, marshes, vernal pools, coastal) through direct removal, filling, hydrological interruption, or other means because there are no water features as defined by State of Federal regulations present with the Project site. Therefore, the proposed Project activities would not directly impact any water, would have no impact to jurisdictional wetlands, and cause no other hydrological interruption, and would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

| Impact BIO-4 | Potential to 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. |

Impact BIO-4 Analysis

The proposed Project area is located within the City of Sacramento and is a developed City park. The proposed Project does not contain any habitat for migratory fish. Furthermore, the location and adjacent development and infrastructure of the proposed Project area has led to fragmentation of sufficient habitat for other migrating ground wildlife species (e.g., deer). However, the proposed Project does contain sufficient tree and nesting habitat for native migratory bird and raptor species to seasonally nest, thus acting as a seasonal migration wildlife corridor. The proposed Project activities could have the potential to restrict native migratory bird and raptor movements and nesting which could cause some interference with of the migratory wildlife corridor. Implementation of MM BIO-2 Avoid Disturbance of Nesting Special-Status and Non-Special-Status Migratory Birds and Raptors would reduce this impact to less than significant by requiring surveys and construction buffers if construction occurs during nesting season and recommending the removal of vegetation outside of nesting season. In addition, disturbance to wildlife migration corridors would be temporary (i.e., during construction) and are not anticipated to negatively impact wildlife movement or migration in the long-term. Furthermore, only a portion of the habitat in the Park and surrounding areas would be directly or indirectly impacted by construction activities indicating
that the potential interference would not be substantial since the proposed Project would not be a substantial impediment to movement of native or migratory wildlife.

Operations of the proposed Project would not be a substantial impediment to movement of native or migratory wildlife. Once constructed, the proposed Project would be mostly underground except for the electrical control facility and the only operational impact could potentially be from maintenance workers periodically conducting system evaluations or maintenance which would not be a substantial impediment to movement of native or migratory wildlife.

Therefore, this impact would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM BIO-2

| Impact BIO-5 | Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy; ordinance conflicting with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan. |

Impact BIO-5 Analysis

The City of Sacramento Tree Ordinance (City Code 12.56) protects against the unpermitted removal of trees within the City as defined in the regulatory section above (Section 3.3.1.3). The proposed Project was designed to avoid and minimize potential impacts to trees to the maximum extent feasible. However, during construction, it is anticipated that site access would require the trimming of or work within the dripline (or “protection zone”) of trees protected by the City ordinance. An Arborist Report was conducted by the City (Appendix B), that evaluated the health and significance of trees within the proposed Project area and would be used to accompany the tree permit required by the Tree Ordinance. Figure 2.4-2 illustrates the trees surveyed and their identified driplines to be avoided to the extent feasible. The proposed Project is not anticipated to require tree removal, but would comply with the City ordinance if tree removal was in fact required. The Tree Ordinance provides that disturbance resulting in tree impacts, specifically tree mortality or tree loss over time due to the degradation of environment, would be in conflict with the intent of the ordinance. The proposed Project would obtain a tree permit prior to construction, as required with the implementation of MM BIO-3, which would ensure the City follows the adopted tree ordinance. With the implementation of MM BIO-3, the proposed Project would not result in a significant impact by conflicting with a local policy or ordinance.

Operations of the proposed Project would not result in a significant impact by conflicting with a local policy or ordinance. Once constructed, the proposed Project would be mostly underground except for the electrical control facility and the only operational impact could potentially be from maintenance workers periodically conducting system evaluations or maintenance which tree removal or trimming is not anticipated. Therefore, operations of the project would not result in a significant impact by conflicting with a local policy or ordinance.
Therefore, this impact would be less than significant with mitigation incorporated.

Additionally, there are no adopted habitat conservation plans for the proposed Project area and the proposed Project does not conflict with any other local policies, ordinance, or plans as described in the biological resources regulatory setting above.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM BIO-3

### 3.3.4 Mitigation Measures

**Mitigation Measure BIO-1: Avoid and Protect Maternal and Roosting Hoary Bats**

Prior to tree removal or demolition activities, a qualified wildlife biologist appointed by the City shall conduct a focused survey for roosting hoary bats and potential roosting sites within the proposed Project area. The surveys can be conducted by visual identification and/or can be identified using echo location instruments, as needed.

- If no roosting bats are found, no further mitigation is required.
- If roosting hoary bats are found, then the following mitigation measures shall be implemented:
  - If bats are found roosting outside of nursery season (approximately May 1 through September 30), then they shall be excluded. Exclusion of bats shall be conducted using bat exclusion techniques, developed by Bat Conservation International (BCI) and in consultation with appropriate regulatory agency.
  - If bats are found roosting during the nursery season, then they shall be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost for bat pups, if possible, or monitoring the roost after the adults leave for the night to listen for bat pups.
  - If the roost is determined to be a maternal roost, then eviction cannot occur during the nursery season. A 250-foot exclusion buffer zone (or buffer as determined by the appropriate regulatory agency and/or qualified wildlife biologist) shall be established around the roosting site within which no construction or tree removal shall occur.
  - If the roost is determined to not be a maternal roost, then the bats shall be excluded as described above.
  - If any roosts are lost due to proposed Project activities, further mitigation shall be initiated and completed by the City in consultation with a qualified wildlife biologist and/or the appropriate regulatory/conservation agency to ensure the loss is compensated and no further loss occurs.
Mitigation Measure BIO-2: Avoid Disturbance of Nesting Special-Status and Non-Special Status Migratory Birds and Raptors

The City will implement one of the following measures, depending on the specific construction timeframe, to avoid disturbing both nesting special-status and non-special-status migratory birds and/or raptors.

- If construction activities are scheduled to occur during the nesting season for these species (generally between February 15 and August 31), a qualified wildlife biologist will be retained to conduct the following focused nesting survey within the proposed Project area:
  
  o Nesting surveys will be conducted within the proposed Project area, and all potential nesting habitat, within 250 feet of this area; or
  
  o The surveys should be conducted within one week before initiation of construction activities, at any time between February 15 and August 31. If no active nests are detected, then no additional mitigation is required;
  
  o If surveys indicate that migratory bird nests are found in any areas that would be directly affected by construction activities, a no-disturbance buffer will be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a wildlife biologist determines that the young have fledged (i.e., usually late June to mid-July). The extent of these buffers will be determined by a wildlife biologist, and will depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. These factors shall be analyzed to make an appropriate decision on buffer distances.

- If construction activities begin before the breeding season (i.e., begin between August 31 and February 14) (pre-existing construction), then construction can proceed until it is determined that an active migratory bird nest would be subject to abandonment because of construction activities. If any bird nest is in the proposed Project vicinity under pre-existing construction conditions, then it is assumed that they are habituated (or will habituate) to the construction activities. Under this scenario, the pre-construction survey described previously should still be conducted on or after February 15 to identify any active nests in the vicinity. Active sites should be monitored by a wildlife biologist periodically until after the breeding season or after the young have fledged (i.e., usually late June to mid-July). If active nests are identified on or immediately adjacent to the proposed Project site, then all nonessential construction activities (e.g., equipment storage and meetings) should be avoided in the immediate vicinity of the nest site, but the remainder of construction activities may proceed.

Mitigation Measure BIO-3: Avoid and Minimize Impacts to Tree Species

The City adopts regulations to protect and minimize impacts to tree species (e.g., oaks, city trees, heritage trees). To avoid and minimize impacts to tree species in the proposed Project area, the following mitigation is required:
The proposed Project design shall be done to avoid and minimize impacts to trees to the maximum extent feasible. The location of all trees to be retained shall be shown on all site plans (e.g., site grading, drainage, and utility plans).

Prior to any construction activities associated with the proposed Project (i.e., removal, trimming, work within the tree protection zone), a City Tree Permit shall be obtained as needed. Pursuant to City Ordinance, a tree permit shall be obtained before regulated work is performed on City trees or private protected trees.

To protect and minimize impacts to trees prior to, during, and after construction, the following standard Best Management Practices (BMPs) are recommended within the proposed Project area:

- Retain a qualified arborist for the proposed Project, as needed and/or as specified by the City;
- Ensure that tree protection measures, as specified by the City and proposed Project arborist, are written into construction specifications;
- Following final design and approval, trees that have the potential to be impacted should be tagged with the corresponding identification numbers documented prior to construction;
- Limit access routes to the proposed Project when feasible;
- Erect fencing and signage around trees to be preserved (i.e., typically one foot per inch diameter, although to the dripline is standard);
- During construction, avoid damage to tree trunk and crown. Manage soil by avoiding excessive soil compaction and additional fill dirt, unless permitted;
- Have the proposed Project arborist on site during tree removal, trenching, digging, etc. to prevent root loss, root damage, structural damage, and to maintain tree and soil health; and
- Photograph and collect relative information corresponding with trees within the proposed Project area during each proposed Project stage as a measure for monitoring, or as instructed by City.
3.4 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This section describes the environmental and regulatory setting for cultural resources and Tribal Cultural Resources. It also describes impacts on cultural resources and Tribal Cultural Resources that could result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.4.1 Regulatory Framework

3.4.1.1 Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 requires federal agencies, or those they fund or permit, to consider the effects of their actions on historic properties. This project does not involve a Federal undertaking or federal funding.

3.4.1.2 State

California Environmental Quality Act (CEQA)

CEQA consists of statutory provisions in the Public Resources Code (PRC) and Guidelines promulgated by the Office of Planning and Research. CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significant historical resources as part of the environment. A project that causes a substantial adverse change in the significance of an historical resource has a significant effect on the environment CCR 14 Section 15064.5; California PRC Section 21098.1). CEQA defines a substantial adverse change as follows.

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CCR 14 Section 15064.5[b][1]).

The CEQA Guidelines provide that the significance of an historical resource is materially impaired when a project results in the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources (CRHR); or

- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC Section 5020.1(k) or its identification in an historical resources survey meeting the requirements of PRC Section 5024.1(g), unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a Lead Agency for purposes of CEQA (CCR 14 Section 15064.5[b][2]).

California Register of Historical Resources: Public Resources Code Section 5024

The term historical resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of Public Resources Code (PRC) (PRC Section 5020.1[j]).

Historical resources may be designated as such through three different processes:

1. Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC Section 5020.1[k]);
2. A local survey conducted pursuant to PRC Section 5024.1(g); or
3. The property is listed in or eligible for listing in the NRHP (PRC Section 5024.1[d][1]).

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR, which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

It is associated with events that have made a significant contribution to the broad patterns of:

1. California’s history and cultural heritage;
2. It is associated with the lives of persons important in our past;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4. It has yielded, or may be likely to yield, information important in prehistory or history. (CCR 14 Section 4852).

To be considered a historical resource under CEQA, the resource must also have integrity, which is the authenticity of a resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the criteria under which a resource is eligible for listing in the CRHR (CCR 14 Section 4852[c]).
Assembly Bill 52 (Public Resources Code Section 21084.2)

Assembly Bill (AB) 52 changes sections of the PRC (Section 5097.94) to add consideration of Native American culture within CEQA (Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3). The goal of AB 52 is to promote the involvement of California Native American Tribes in the decision-making process when it comes to identifying and developing mitigation for impacts to resources of importance to their culture. To reach this goal, the bill establishes a formal role for tribes in the CEQA process. CEQA lead agencies are required to consult with tribes about potential Tribal Cultural Resources in the project area, the potential significance of project impacts, the development of project alternatives, and the type of environmental document that should be prepared. AB 52 specifically states that a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.

Discovery of Human Remains

Section 7050.5 of the California Health and Safety Code (CHSC) states the following regarding the discovery of human remains:

a. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].

b. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the California Government Code [CGC], that the remains are not subject to the provisions of Section 27491 of the CGC or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

c. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) (CHSC Section 7050.5).
Of particular note to cultural resources is subsection (c), which requires the coroner to contact the NAHC within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. The MLD will have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law (PRC Section 5097.99).

3.4.1.3 Local

City of Sacramento 2035 General Plan

The following City of Sacramento 2035 General Plan, Historic and Cultural Resources (HCR) Element, goals and policies are applicable to cultural resources.

Goal HCR 2.1 Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city’s historic and cultural resources to enrich our sense of place and our understanding of the city’s prehistory and history.

Policy HCR 2.1.1 Identification. The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to provide adequate protection of these resources.

Policy HCR 2.1.2 Applicable Laws and Regulations. The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.

Policy HCR 2.1.3 Consultation. The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the NAHC, the CA Office of Planning and Research (OPR) “Tribal Consultation Guidelines”, etc.,) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.

Policy HCR 2.1.10 Early Consultation. The City shall minimize potential impacts to historic and cultural resources by consulting with property owners, land developers, and the building industry early in the development review process.

Policy HCR 2.1.11 Compatibility with Historic Context. The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.

Policy HCR 2.1.13. Historic Surveys and Context Statements. Where historic resource surveys may no longer be valid, or for areas that have not been surveyed, the City shall seek funding to prepare new
3.4.5 historic context surveys. In these surveys, the potential eligibility of all properties 45 years and older for listing in National, California, or Sacramento registers shall be evaluated.

Policy HCR 2.1.16 Archaeological and Cultural Resources. The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

Historic Preservation Zoning Ordinance

The City of Sacramento’s historic preservation program began in 1975 with the enactment of the City’s first Historic Preservation Ordinance. The current Historic Preservation Ordinance (No. 2006-063) was enacted in October 2006. The purpose of the Historic Preservation Ordinance is to do the following: identify, protect, and encourage the preservation of significant resources; maintain an inventory and ensure the preservation of these resources; encourage maintenance and rehabilitation of the resources; encourage retention, preservation, and re-use of the resources; safeguard city resources; provide consistency with state and federal regulations; protect and enhance the city’s attraction to tourists; foster civic pride in the city’s resources; and encourage new development to be aesthetically compatible.

3.4.2 Environmental Setting

Stantec conducted a records search at the North Central Information Center in Sacramento, California and reviewed applicable background materials, including the 2009 McKinley Park Rose Garden Evaluation of Significance document, USGS topographic maps, aerial photographs, geological map of California, USGS soil survey data, Bureau of Land Management (BLM) General Land Office maps (GLO), NRHP, CRHR, Office of Historic Preservation (OHP) Historic Property Directory (HPD) listing, and the City of Sacramento Register of Historic and Cultural Resources databases. A pedestrian survey of the Project area was conducted by architectural historians on October 3, 2017 and an archaeologist on October 21, 2017.

3.4.2.1 Natural Setting

The Project vicinity lies within California’s Central Valley within Sacramento County, and is located approximately 0.90 miles south of the American River. Although the Project area is now heavily developed and is part of the greater Sacramento metropolitan area, the natural environment is an annual grassland. Common vegetation that can be found within the rural vicinity of Sacramento include grasses, valley oak (Quercus lobata), blue oak (Quercus douglasii), interior live oak (Quercus wixlizenii), black oak (Quercus kelloggi), and in aquatic or riverine areas, blackberry, cottonwood (Populus fremontii), sycamore (Plantanus racemose), and white alder (Alnus rhombifolia) can be found (Moratto 1984; Schoenherr 1992).

Soils in the Project area are predominantly composed of Columbia-Urban land complex, which is identified with flood plains and natural levees, and is composed of alluvium, consisting of such soils as sandy and stratified loamy sand to silt loam, and Rossmoor-Urban land complex, which consists of alluvium, and is composed of fine sandy loam (USDA 2016). Alluvial soils in this region were originally derived from granitic and igneous rocks. The geologic age of deposition in the Project area is classified as
“Q” by the CDC. “Q” rock types generally are marine and non-marine (continental) sedimentary rocks of Pleistocene to Holocene age (CDC 2015). The alluvial nature of these soil types and the proximity to perennial the water source of the American River indicates a moderate likelihood for the Project area to contain buried archaeological resources (CDC 2015; USDA 2016).

3.4.2.2 Ethnographic Setting

The ethnographic populations living in and around the drainages of the Yuba, Bear and American Rivers, and lower drainages of the Feather River, were members of the Southern Maidu, or Nisenan, language family, which is a subgroup of the California Penutian linguistic family (Wilson and Towne 1978). Their ethnographic territory extended as far west as the bank of the Sacramento River, to the east as far as the Sierra Nevada mountain range, and a few miles south of the American River, but north of the Consumnes River. The northern extent of Nisenan ethnographic territory is unknown (Wilson and Towne 1978). Several ethnographic villages existed near the confluence of the American and Sacramento Rivers, within two miles of the Project area: Momol and Sama (Wilson and Towne 1978).

3.4.2.3 Prehistoric Context

Archaeological work during the 1920s and 1930s led to the cultural chronology for central California presented by Lillard, Heizer, and Fenenga in 1939. This chronology was based on the results of excavations conducted in the lower Sacramento River Valley. The chronology identified three archaeological cultures. These cultures were named Early, Transitional, and Late (Lillard et al 1939). An antecedent to the Early Culture was postulated, but neither characteristics nor probable origins of this earlier culture were discussed in detail (Lillard et al 1939). Heizer (1949) redefined the description of these three cultures. He subsumed the three cultural groups into three-time periods, designated the Early, Middle, and Late Horizons. Heizer (1949), however, primarily focused his new archaeological research and reexamination of Lillard et al (1939) on the Early Horizon, which he named Windmiller. He also intimated that new research and a reanalysis of existing data would be initiated for cultures associated with the Middle and Late Horizons. Heizer, however, did not complete this work, and it was left for other researchers.

Ragir (1972) reanalyzed, updated, and elaborated the description, temporal span, and geographic distribution of Windmiller. Ragir (1972) refined the temporal span for Windmiller, dating it from 4,500-2,500 B.P., with a maximum age of 7,000 B.P. The 7,000 B.P. dates for the origin of Windmiller was postulated because the culture described at 4,000 years ago appears to be fully developed and seems well integrated into the regional economic system (i.e., artifacts of exotic materials, such as marine shell and obsidian are present in the assemblage). Heizer (1949) and Ragir (1972) presented a set of characteristics to identify Windmiller. Some of these characteristics are: large and heavy, stemmed and leaf-shaped projectile points commonly made on a variety of materials other than obsidian; perforate charmstones; Haliotis and Olivella shell beads and ornaments; trident fish spears; baked clay balls (presumably for cooking in baskets); flat slab millingstones; small numbers of mortars; and ventrally extended burials oriented toward the west (Heizer 1949; Ragir 1972). The subsistence pattern of Windmiller groups probably emphasized hunting and fishing, with seed collecting (possibly including acorns) supplementing the diet (Heizer 1949; Ragir 1972; Moratto 1984).
Windmiller groups at about 4,000 B.P. are firmly established in the Lower Sacramento River Valley and are interacting with their neighbors. Windmiller groups acquired: obsidian from at least two Coast Range and three trans-Sierran sources; haliotis and olivella shells and ornaments from the coast; and quartz crystals from the Sierra foothills (Heizer 1949; Ragir 1972). It is hypothesized that the bulk of these materials were acquired through trade. Some of these materials, however, may have been acquired as part of seasonal movements between the Central Valley and the Sierra foothills. There is evidence for seasonal transhumance in the distribution of Windmiller artifacts, sites, and burial patterns. Johnson’s work (1967; 1970) along the edge of the Sierra Nevada foothills at Camanche Reservoir and CA-Ama-56, the Applegate site, suggest a link between Windmiller of the Central Valley and the Sierra Nevada mortuary caves. Rondeau (1980), who was working at the edge of the Central Valley at CA-Eld-426, the Bartleson Mound, identified components of the Early Horizon. He (1980:58) even postulated a potential relationship between the Early Horizon cultures and the Martis Complex.

In addition, analysis of Windmiller burial orientation (Schulz 1970) and skeletal analyses (e.g., Harris Lines) by McHenry (1968) suggest a high percentage of winter death among Windmiller groups. Incorporating all these data, Moratto (1984:206) states that as early as 4,000 B.P. Windmiller groups may have been exploiting the foothills of the Sierra Nevada during the summer and returning in the winter to villages in the Central Valley. Beyond lithic procurement Heizer does not discuss the possibility of Windmiller ties to the foothills or the Great Basin. He (1949) does suggest, however, that the valley floor may have been abandoned at the end of the Early Horizon, with the valley edges becoming a location for "cultural blending" with groups beyond the geographic limits of the valley. Heizer (1949) acknowledged that there were general similarities between Windmiller assemblages and those of other cultures found in different regions of California. Consequently, there is evidence to support the hypothesis that there is a relationship between the Martis Complex and the Early Horizon or Windmiller of the Central Valley. Regardless, Ritter (1970: 532) believes that the Spring Garden Ravine site highlights the adaptation to the ecotone between the pine forest and oak-chaparral woodland (i.e., the Transition Zone) by Martis cultural groups beginning around 4,000 B.P. Ritter supports Elsasser’s earlier hypothesis that the Martis Complex reflects an adaptation to the ecology of the Transition Zone.

The succeeding Middle Horizon, named the Cosumnes Culture by Ragir (1972), was first recognized at CA-Sac-66. The Middle Horizon is characterized by: tightly flexed burial with variable orientation; red ochre stains in burials; distinctive Olivella and Haliotis beads and ornaments; distinctive charmstones; cobbles mortars and evidence of wooden mortars; numerous bone tools and ornaments; large, heavy foliate and lanceolate concave base projectile points made of materials other than obsidian; and objects of baked clay. Middle Horizon cultures are generally quite different from Windmiller, but do continue to exhibit some of the characteristics of Windmiller such as similar projectile point forms. The similarities in projectile point form may be indicative of cultural continuity and/or functional and adaptational success of particular forms. Regardless, many projectile point forms span long periods of time and may also be found in the assemblages of presumably different cultural groups. The Late Horizon, labeled the Hotchkiss Culture by Ragir (1972), ranges in age from 1,500 B.P. to contact. The Hotchkiss Culture primarily represents both local innovation and the blending of new cultural traits introduced into the Central Valley. It is distinguished by intensive fishing, extensive use of acorns, elaborate ceremonialism, social stratification, and cremation of the dead.
3.4.2.4 Historical Setting

As cities grew in the late nineteenth and early twentieth centuries, city planners and business developers set aside land outside urban areas to preserve natural landscapes and provide an escape from city life. By the twentieth century, park design and use focused more on recreational activities rather than just appreciation of natural beauty. While many late 19th century parks were located outside the urban centers, community leaders began using city centers and plazas as park spaces. John Sutter Jr., the primary driving force for the development of Sacramento, had the city laid in a grid pattern with ten spaces specifically for city plazas. Nine plazas still exist including Plaza Park (today, Cesar E. Chavez Plaza), Roosevelt Park, Fremont Park, Winn Park, Marshall Park, Stanford Park, Grant Park, Muir Playground, and Sacramento Memorial Auditorium. These plaza parks provided residents with publicly accessible spaces within an urban core. As the nineteenth century progressed, Sacramento would see the establishment of larger parks outside the urban core, first with East Park and then Oak Park (Kremer 2012).

East Park Development

In December 1848, John Sutter Jr. and Sam Brannan hired topographical engineer William H. Warner to lay out “Sacramento City.” It was named, named after the river and meant to differentiate John Sutter Jr.’s pursuits from that of his father, John Sutter Sr. The original city grid consisted of 26 lettered (A to Z, today C to Broadway) and 31 numbered (1st to 31st, today Front to Alhambra) streets. To protect the city and thwart the unpredictable waters of Sutter and Burns Slough, a levee was constructed along the American River, southeast across modern day East Sacramento. In the 1850s and 1860s, the land east of 31st Street (future East Sacramento) consisted of marshy estates including William Muldrow’s property which largely fronted the American River, the 312-acre Rippsten, Rutte and Company property, the 30-acre Baker Tract, and the 50-acre Makonican Tract. The topography, while largely flat, was marshy with two well established waterways with headwaters in the American River, Burns Slough which, snakes southwesterly and Sutter Fort Slough which traverses west. However, as of 1857, this levee had failed at the juncture of Sutter and Burns Sloughs. A second levee along 31st Street from B to just below F Street offered additional protection where the old levee had failed. Between these two levees and where Burns and Sutter Sloughs would be the future site of East Park (McKinley Park) (Gordon 1857).

In 1871, the Sacramento Street Railway Company purchased 30 acres on the outskirts of Sacramento, and built a park of amusements, picnic grounds, and natural elements accessible, conveniently, by the company owned horse-drawn streetcars (also called an omnibus). To lure Sacramento residents to the eastern edge of the city the Sacramento Street Railway Company reclaimed the swampy slough land and constructed a two story-clubhouse that housed a saloon, gymnasium, and a bowling alley. Other attractions included a shooting gallery and most notably a zoo with animals including deer, alligators, bears, a lion, eagles, pelicans, monkeys, raccoons, and hyenas. The company planted upwards of 500 trees, shrubs, and flowers. Additionally, the company made several attempts to contain Burns Slough. During the summer months, the slough waters were slow, but they were fast and dangerous during winter storms. On multiple occasions when Burns Slough flooded, it swept away people and houses and broke levees. In 1871, the slough was dredged, deepening the channel and the section through East Park was channelized to a manmade pond with an island in the middle. Throughout the park’s history several
attempts were made to contain the slough during flooding events and enhance the water features of the park. East Park’s amenities were made accessible by use of the Sacramento Street Railway Company’s line, which ran directly into the center of the park via a palm tree lined driveway (Sacramento Daily Union May 30, 1871; Golden Notes 1968; Phillips 2009: 49-59; Anderson and Mahan 2003: 14, 29).

The streetcar company and park underwent numerous ownership changes in the 1870s and 1880s. The rail company continued to operate their horse-drawn streetcars from 20th and H Streets to the park on a limited basis, however, this too changed in 1883. Due to declines in ridership, the Sacramento City Railway Company ceased all operation and discontinued their line to East Park. Ending the streetcar access brought a dramatic decline to the park. Decrease in revenue was compounded by multiple changes of ownership. In 1885, Thomas Clunie (lawyer for the Sacramento City Railway Company, owner of the Clunie Hotel and Opera House) and Albert Gallatian (wealthy merchant who would own the Folsom Water Power Company in the 1890s, forerunner to the Sacramento Electric Light and Power Company), purchased the streetcar and East Park and in turn created the East Park Association (Sacramento Daily Union 1888; The Record Union 1881, 1883)

East Park to McKinley Park

The East Park Association began raising funds to improve the condition of the park and its facilities in 1889. Picnicking remained an important park function, but the association aimed to reinvigorate the park with the addition of a toboggan (also called an aerial railway). At the time of its completion, it boasted treetop level views, electric illumination, tunnels, and was the longest ride of its type in the world. Other attractions included hot air balloon ascensions with parachute jumps and a bowling alley. One of the most notable changes was the reintroduction of streetcar access to the park, which had ceased in 1883. Gallatian, a board member of the East Park Association, also owned a controlling stake in the Sacramento Electric Light and Power Company, which sought to bring electricity from Folsom Powerhouse to Sacramento for use in an electric streetcar system. The first electric streetcar started use in 1890, utilizing the tracks of the former Sacramento City Railway Company. Electric streetcars connected downtown Sacramento with East Park. In 1906, Pacific Gas and Electric Company (PG&E) purchased the Sacramento Electric, Gas, and Railway Company (successor to the Sacramento Electric Light and Power Company) and all its holdings, including the streetcar system (Sacramento Daily Union 1888; The Record Union 1895; Anderson and Mahan 2003: 17; Nauman 2017).

By 1900, increased maintenance costs, poor road conditions, infrequent streetcar access, and the unhealthy conditions of Burns Slough accounted for East Park’s decline. The slough, which ran through the park, resembled a swamp with stagnate water and a breeding ground for mosquitoes. Further, the hundreds of plants and trees were unkempt, making park walkways virtually impassable. An organization of Sacramento women, the Tuesday Club, proposed the City of Sacramento purchase the park with the goal of having the city construct a children’s park. This vision was bolstered by the Tuesday Club’s assertion that if the city purchased the park, it could be renamed McKinley Park as a memorial to President William McKinley who was assassinated in September 1901. The park was sold to the City of Sacramento in 1902 at a cost of $12,500 dollars (Anderson and Mahan 2003: 21-22).

Despite the City of Sacramento’s ownership of the newly christened McKinley Park, the new owners faced the same problem as their predecessors: how to fund improvements. From 1902 through 1906 very
little changed at the park (with the exception PG&E’s purchase of the electric streetcar system and connection with the park). In 1906, one of the first improvements was construction of a running track at the southeast corner of the park. However, within two years the track was abandoned by the running team and converted to a cycling track. Other improvements included the addition of a second streetcar line, the Sacramento Northern Electric Rail extended east on C Street and south on 31st Street, terminating in front of the Club House. In 1909, the city of Sacramento, with the aid of the Tuesday Club, raised $30,000 for park improvements including construction of the first children’s playground at the park (Sacramento Record-Union 1906, 1907, 1908, 1909; Anderson and Mahan 2003: 23-25).

Growth of East Sacramento

As the 1910s progressed, East Sacramento growth as a residential destination remained stunted. This changed following the City of Sacramento’s annexation of the East Sacramento in 1911. With annexation came the introduction of many city services, most notably a solution for the constant flooding and health threats caused by Burns Slough. In 1911, Sacramento City Engineer Randle proposed Burns Slough be contained in an underground concrete pipe in addition to construction of a larger combined storm water sewage system. While work progressed on the larger underground utility installation, the piping of Burns Slough in McKinley Park did not commence until 1915. It was also in 1915 that the pond at McKinley Park assumed its current shape. In the mid-1910s the streetcar route through McKinley Park and flanked by palm trees appears to have been abandoned. Streetcars remained important for local transportation needs and continued to service the park. However, by the 1910s, automobiles had become increasingly popular. In 1916, an auto camp, the first in California, was established in the panhandle section of McKinley park (Sacramento Record Union 1911; City of Sacramento 2012).

As East Sacramento developed into a desirable enclave, McKinley Park transitioned from a resort on the outskirts of town to a neighborhood park. Picnicking remained an important part of the park’s use, however much of the park’s original use changed. This fundamental shift altered its use as the buildings were replaced and amusements changed to recreation. In 1928, under the direction of the City of Sacramento’s first park superintendent Frederick Evans, the former track location was redeveloped into a rose garden. Evans, a landscape architect, began shaping the garden into “a showplace of the city park system.” The garden building was constructed between 1929 and 1936 to service the garden. In 1930, a comfort station (bathroom) was approved by City Council. The facility was designed by local architect, Charles Dean. The biggest change to the park came in 1936, when the two-story clubhouse pavilion, built in 1871, was razed. The new building was funded by a donation of $150,000 dollars from Florence Turton Clunie, widow of Thomas, the former owner of the park. The new building, named Clunie Memorial Pool and Club House, was designed by Harry Devine and Starks and Flanders and constructed by Harry Robertson (Anderson and Mahan 2003: 14, 29; WAC Corporation 1928, 1952, 1963, 1971; City of Sacramento 1930, 1936; Center for Sacramento History1936).

By the mid-1930s, the park had officially become a neighborhood park. Construction of the pool resulted in removal of many of the original trees, including a portion of the palm trees, once part of the formal streetcar entryway. The entryway had been devoid of streetcar rails since the mid-1910s but maintained a decomposed granite surface which was replaced with grass by 1940. In 1937, the parks department added new play equipment and a new basketball court was added. The park remained largely unchanged.
until 1953, when a new road was added at the intersection of Alhambra Boulevard and H Street to alleviate traffic. Additional alterations in the 1950s included construction of a new garden center. Architects Francheschi and Mullen designed a new Garden and Arts Center to be constructed in the panhandle, the former location of the auto camp. Construction commenced in 1958 by contractor Beals and Poor with a parking lot added in 1971. Throughout the 1960s numerous changes were made, including construction of a series of new concrete walkways, interior improvements in Clunie, and refurbishment of some of the tennis courts (Reid 2004: 24-25; City of Sacramento 1953; 1954, 1958; Anderson and Mahan 2003: 36).

While picnicking had long been one of the most important and popular functions at East and McKinley Park, there had been very little infrastructure invested. In 1987, the city invested in the construction of multiple concrete pads topped with barbeque pits, sinks, drinking fountains, park benches, and picnic tables. In 1990, Foothill Excavating and Grading constructed a 1.1-mile decomposed granite running track around the park perimeter. In 1996, an island was constructed in the middle of the pond. The soil, donated by Pacific Bell was intended to serve as waterfowl habitat. This marked the first major construction job in the pond since Burns Slough was piped. In 2012, the 1977 children’s playground and a bathroom was destroyed by arson. The playground was rebuilt in 2013 with equipment paying homage to local history and a new, prefabricated bathroom installed in 2014 (City of Sacramento 1987; 1990; 1920; 2006; 2012). For a complete history please see the detailed DPR-523 site record for McKinley Park (Appendix D).

3.4.2.5 Known Cultural Resources

A formal records search of the NCIC was conducted on October 19, 2017 (See Appendix D). The records search identified one cultural resource within the Project area: P-34-003585, a single- story brick structure (McKinley Park/Florence Turton Clunie Memorial), located at 601 Alhambra Boulevard (1936). It is listed as 7N, or “needs to be reevaluated for the NRHP,” on the OHP HPD. In addition to the Records Search, Stantec worked with the City of Sacramento which provided relevant reports and documentation of adjacent resources. In 2009, the Rose Garden was determined to be a landmark for the Sacramento Register.

Cumulatively, the records search identified twenty-two cultural resources within 0.25 mile of the Project area (see Table 3.4-1, below).

Additionally, on February 12, 2018 the City of Sacramento Department of Parks and Recreation (now known as the Department of Youth, Parks & Community Enrichment) received notification from the OHP HPD that McKinley Park has been nominated for the NRHP. The nomination is currently being reviewed by the OHP HPD to determine eligibility for the National Register program. If McKinley Park is found to be eligible, a hearing will take place and the State Historical Resources Commission would make the final determination for the properties listing. As of the date of the release of this EIR, McKinley Park is not included in the NRHP.
**Table 3.4-1 NCIC Records Search Results**

<table>
<thead>
<tr>
<th>Primary Number</th>
<th>Resource Type</th>
<th>Description</th>
<th>Within Project Area</th>
<th>Eligibility Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-34-001903</td>
<td>Built Environment</td>
<td>A 102-foot tall, concrete water tower (1937), located at 3230 J Street</td>
<td>No</td>
<td>Listed as 7L in OHP HPD</td>
</tr>
<tr>
<td>P-34-002342</td>
<td>Built Environment</td>
<td>The John T. Greene residence, a two-story building (1915), located at 3200 H Street</td>
<td>No</td>
<td>Listed as 1S in OHP HPD</td>
</tr>
<tr>
<td>P-34-002723</td>
<td>Built Environment</td>
<td>One story wood framed building located at 901 28th Street (1910)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>P-34-002724</td>
<td>Built Environment</td>
<td>Two story wood framed building located at 903 28th Street (1913)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>P-34-002725</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building located at 518 Alhambra Blvd. (c. 1911)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
</tr>
<tr>
<td>P-34-002764</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building located at 3021 E Street (c. 1910-1915)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
</tr>
<tr>
<td>P-34-002823</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building with a raised basement, located at 3012 G Street (1916)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
</tr>
<tr>
<td>P-34-002876</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building located at 2027 H Street (1913)</td>
<td>No</td>
<td>This building is not listed in the OHP HPD listing</td>
</tr>
<tr>
<td>P-34-002877</td>
<td>Built Environment</td>
<td>One story wood framed building located at 2731 H Street (1898)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
</tr>
<tr>
<td>P-34-002878</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building with a raised basement located at 3027 H Street (c. 1910-1915)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
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<tr>
<td>P-34-002903</td>
<td>Built Environment</td>
<td>One and one-half story wood framed building with a raised basement located at 2820-30 I Street (c. 1910-1913)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
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<tr>
<td>Primary Number</td>
<td>Resource Type</td>
<td>Description</td>
<td>Within Project Area</td>
<td>Eligibility Status</td>
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<tr>
<td>----------------</td>
<td>---------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------</td>
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<tr>
<td>P-34-002904</td>
<td>Built Environment</td>
<td>one story wood framed building with a raised basement located at 3020 I Street (c. 1895)</td>
<td>No</td>
<td>Listed as 7R in OHP HPD</td>
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<tr>
<td>P-34-003468</td>
<td>Built Environment</td>
<td>two-story brick structure (Turn Verein Hall) located at 3349 J Street (1926)</td>
<td>No</td>
<td>Listed as 3S in OHP HPD</td>
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<tr>
<td>P-34-003471</td>
<td>Built Environment</td>
<td>two-story structure with raised basement located at 3439 J Street (c. 1900-1910)</td>
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<td>P-34-003472</td>
<td>Built Environment</td>
<td>two story structures located at 3468 J Street (c. 1895-1905)</td>
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<tr>
<td>P-34-003473</td>
<td>Built Environment</td>
<td>two story structures located at 3521 J Street (1912)</td>
<td>No</td>
<td>Listed as 7N in OHP HPD</td>
</tr>
<tr>
<td>P-34-003713</td>
<td>Built Environment</td>
<td>fountain and Cypress trees which are the only remaining components of the now extant Alhambra Theater, located at 1025 Alhambra Boulevard (1927)</td>
<td>No</td>
<td>Listed as 5D2 in OHP HPD</td>
</tr>
<tr>
<td>P-34-003714</td>
<td>Built Environment</td>
<td>a complex consisting of two stucco buildings that were once a single building, located at 800 Alhambra Boulevard (1935-1936)</td>
<td>No</td>
<td>Listed as 5S2 in OHP H HPD</td>
</tr>
<tr>
<td>P-34-003879</td>
<td>Built Environment</td>
<td>plaque designating the site of the New Helvetia Cemetery, which was established in 1849 (plaque dedicated in 1937), located at the northeast corner of Alhambra Boulevard and J Street</td>
<td>No</td>
<td>Listed as 7L in OHP HPD</td>
</tr>
</tbody>
</table>
3.4.14

### Table

<table>
<thead>
<tr>
<th>Resource Information</th>
<th>Description</th>
<th>Eligibility Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-34-003124</td>
<td>a segment of the Northern Electric/Sacramento Northern Railroad, located between 18th and 19th Streets (1907).</td>
<td>No</td>
</tr>
<tr>
<td>24 O189R Bridge</td>
<td>Sac-51, PM 1.2 Bridge at H Street UC (1966)</td>
<td>No</td>
</tr>
</tbody>
</table>

#### 3.4.2.6 Native American Outreach

On June 2, 2017, the City sent notices to the two California Native American tribes that had previously provided written request to receive notification of projects pursuant to Public Resources Code 21080.3.1(b) (Assembly Bill [AB] 52); the United Auburn Indian Community of the Auburn Rancheria (UAIC) and Wilton Rancheria (WR). The notices included information about the proposed project and invited consultation. Both tribes received the notices on June 7, 2017.

The City received requests for consultation from UAIC on June 19 and June 29, 2017, and from WR on June 22, 2017. On July 19, 2017, The City sent emails to both tribes with the purpose of scheduling a meeting. On July 26, 2017, a meeting date of August 23rd was agreed upon with UAIC. On August 23, 2017, City Staff and representatives of UAIC held a phone conference to discuss the project and the information materials provided. During the conference call, UAIC indicated that the project area was not sensitive for the presence of tribal cultural resources and that no known tribal cultural resources are within the project area. The UAIC requested that the standard unanticipated discovery measures should be followed and that they sent over their recommended measures.

On October 6, 2017, the City met with a representative of WR. WR discussed the presence of tribal cultural resources within the vicinity of the park, although they were uncertain of the distance from the Park. They also inquired about the logistics of the project and studies in support of the analysis. The City conveyed to the tribe that there will be mitigation measures for unanticipated discoveries and for the protection of tribal cultural resources, and that as of October 6, 2017, no archaeological or tribal cultural resources had been identified at the Project site.

Sacramento submitted a sacred lands search request to the NAHC on October 31, 2017. On November 14, 2017, a response was received indicating that sacred sites were identified in the project area. The City of Sacramento had previously consulted with both the WR and the UAIC and they did not have any concerns about the project. For a record of all Native American outreach and correspondence, please see Appendix D.

#### 3.4.2.7 Archaeological Survey

On October 21, 2017, a Stantec archaeologist conducted a pedestrian survey of the Project area (see Attachment C for survey photographs). Transects with a width no greater than 15-meters were utilized across the Project area. Overall ground surface visibility varied, with greater visibility present near the trail.
which encircles McKinley Park. In areas with low ground surface visibility, boot scrapes were employed. No archaeological resources were identified as a result of this effort.

### 3.4.2.8 Architectural History Survey

On October 3, 2017 Stantec Architectural Historians Garret Root and Becca Riggs, who meets the Secretary of the Interior (SOI) Professional Qualification Standards (PQS) for Architectural History and History, conducted an intensive survey of McKinley Park (see Appendix D for the DPR-523 Site Record). The park was subject to written documentation and photography of 20 individual resources as well as contextual relationships between the resources. This effort formally recorded two buildings, the former Garden Center and a bathroom, as they had not been recorded previous.

### 3.4.3 Environmental Impacts

This section analyzes the Project's potential to result in significant environmental impacts to cultural and tribal resources. When an impact is determined to be significant, mitigation measures are identified that would reduce or avoid that impact, if feasible.

#### 3.4.3.1 Methodology for Analysis

The following Thresholds of Significance are established by CEQA guidelines (section 15065, 15126, and Appendix G). According to these guidelines, a project would have a significant environmental impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
  - a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of
Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.4.3.1 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact CUL-1</th>
<th>Potential to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.</th>
</tr>
</thead>
</table>

Impact CUL-1 Analysis

The records search of the State and local registers of historic resources as defined in section 15064.5 identified twenty-two historical resources within 0.25 miles of the Project area with one resource, the McKinley Park/Florence Turton Clunie Memorial, located just northwest of the proposed Project footprint, and one local resource of significance, the Rose Garden, immediately adjacent to the Project footprint.

As described in the Environmental Setting (Section 3.4.2), the Rose Garden is important within the local historic context of McKinley Park for its associations with Park Superintendent Frederick Evans and is currently designated as a landmark by the Sacramento Register. The McKinley Park/Florence Turton Clunie Memorial is an important historical resource as designated by the OHP for its association with Thomas Clunie and Albert Gallatian who purchased the property in 1885. The proposed Project would not cause a substantial adverse change in the McKinley Park/Florence Turton Clunie Memorial or the Rose Garden's historical significance since the Project footprint is outside of the Memorial and Rose Garden boundaries. Irrigation water supplied to the Rose Garden would be maintained during Project construction. Construction site access would be located on the north and east sides of the Park to limit construction traffic immediately adjacent to the Rose Garden and would not adversely change the significance or defining features of either the Rose Garden or the McKinley Park/Florence Turton Clunie Memorial building.

Additionally, Project construction could cause groundborne vibrations which could potentially have an adverse effect to the historical resources in the area such as the Rose Garden, McKinley Park/Florence Turton Clunie Memorial building, or the older homes that surround the Park. A detailed analysis of the potential groundborne vibrations from Project construction is provided in Section 3.10, Noise and Vibration. Due to the type of construction activities and the equipment that would be used, in conjunction with the soil type in the Project area, any Project induced groundborne vibrations would be minimal and of temporary duration, thus not substantially affecting the historical resources in the Project area. Therefore, the Rose Garden, the McKinley Park/Florence Turton Clunie Memorial, and the other older homes in the Project area would remain intact and undisturbed by the proposed Project vibrations and would not cause a substantial change to these historical resources.

Also, the nomination of McKinley Park for eligibility on the National Register program, if eligible, would list the entire park on a register which would also meet the definition of historical resource as defined by PRC section 15064.5. However, the proposed Project would not cause a substantial adverse change in the...
significance of the McKinley Park since the park would maintain its existing uses once construction is finished and the historical context would be maintained.

Therefore, the proposed Project would not cause a substantial adverse change in the significance of a historic resource as defined by section 15064.5 and the Project would have a less than significant impact.

Level of Significance: Less than Significant

Mitigation Measure: None Required

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**Impact CUL-2**

Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

Impact CUL-2 Analysis

The records search of the State and local registers of archaeological resources as defined in section 15064.5 of did not identify any archaeological resources (prehistoric or historic period) within 0.25 miles of the Project area. A pedestrian survey of the Project site was also negative for the presence of prehistoric or historic period archaeological resources. However, the alluvial soils underlaying the Project site and nearby perennial water sources indicate that the Project site would have been conducive for prehistoric or historic utilization, indicating that the site has a moderate potential to contain buried archaeological resources (CDC 2015; USDA 2016). Because of this moderate potential, excavation activities during construction could potentially damage or destroy previously undiscovered archaeological resources, and the inadvertent discovery of buried archaeological resources cannot be entirely discounted. Therefore, MM CUL-1 and CUL-2 which include both inadvertent discovery protocol and worker cultural awareness training, would be implemented for the proposed Project. Implementation of these measures would ensure workers are equipped with proper knowledge to recognize a resource and to stop work as well as establishing a protocol to be followed to evaluate, treat, and/or avoid the resource. With the implementation of MM CUL-1 and CUL-2, any potential impact to archaeological resources would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM CUL-1 and MM CUL-2

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**Impact CUL-3**

Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact CUL-3 Analysis

The Project area lies within an area of Quaternary deposits, including late Quaternary fluvial deposits (levee and channel sediments) of the American River and earlier Quaternary alluvial deposits of the Riverbank Formation (Wagner et al. 1981). A search of the University of California, Berkeley’s Museum of Paleontology (2017) vertebrate fossil database indicates that there are two recorded fossil localities within the Sacramento Metro area and none within the Project area. While in general, fluvial and alluvial deposits have high potential to contain paleontological resources, very few fossil sites have been
recorded in the Sacramento area. The potential for Project impacts to significant paleontological resources is therefore considered moderate. MM CUL-1 and MM CUL-2 would include implementation of the inadvertent discovery protocol and worker cultural awareness training in which construction personnel would be informed that excavation could yield paleontological resources in the form of ancient bones and that if a potential paleontological resource is identified, all construction activities within 100-feet of the find would be required to cease while the sensitivity of the resource is determined. The implementation of this of inadvertent discovery protocol would reduce any potential impacts to a less than significant level. Therefore, with the implementation of MM CUL-1 and MM CUL-2, the potential for the proposed Project to directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature would be less than significant.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM CUL-1 and MM CUL-2

<table>
<thead>
<tr>
<th>Impact CUL-4</th>
<th>Potential to disturb human remains, including those interred outside of formal cemeteries.</th>
</tr>
</thead>
</table>

**Impact CUL-4 Analysis**

Based on consultation with tribal representatives and contextual information summarized in the environmental setting (Section 3.4.2), there is no indication that the Project site has been used for burial purposes in the recent or distant past. Therefore, it is unlikely that human remains would be encountered during construction. However, the inadvertent discovery of human remains cannot be entirely discounted. MM CUL-3 would be implemented to reduce potentially significant impacts to a less-than-significant level. MM CUL-3 requires that work halt near a discovery of human remains until the Coroner and an archaeologist are notified and evaluate the remains. The human remains and any associated grave goods as provided in PRC Section 5097.98 shall be treated in accordance with PRC section 5097.98. Impacts would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM CUL-3
Impact CUL-5

Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is 1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or 2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Impact CUL-5 Analysis

The City of Sacramento contacted individuals at both WR and the UAIC. No tribal cultural resources were identified within the Project area as a result of this outreach.

As no Tribal Cultural Resources were identified within the Project area by either the appropriate tribes or by the lead agency (City), the proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource or object listed in the CRHR or a local register or with cultural value to a California Native American tribe. However, the alluvial soils underlaying the Project site and nearby perennial water sources indicate that the Project site likely would have been conducive for prehistoric occupation or use, indicating that it has a moderate potential to contain buried Tribal Cultural Resources. Because of this moderate potential, excavation activities during construction could potentially damage or destroy previously undiscovered Tribal Cultural Resources.

The inadvertent discovery of buried Tribal Cultural Resources cannot be entirely discounted. Therefore, MM CUL-1 and CUL-2, which include both inadvertent discovery protocol and worker cultural awareness training, would be implemented for the proposed Project. Implementation of these measures would ensure workers are equipped with proper knowledge to recognize a resource and to stop work as well as establishing a protocol to be followed to evaluate, treat, and/or avoid the resource. If the identified archaeological resource is determined to be prehistoric, the City and qualified archaeologist would coordinate with and solicit input from the appropriate Native American Tribal Representatives regarding significance and treatment of the resource as a tribal cultural resource. Any Tribal Cultural Resources discovered during Project work would be treated in consultation with the tribe, with the goal of preserving in place with proper treatment. With the implementation of MM CUL-1 and CUL-2 any potential impact to Tribal Cultural Resources would be reduced from potentially significant impacts to a less than significant level. Therefore, the impact would be less than significant with mitigation.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM CUL-1 and MM CUL-2
Mitigation Measure CUL-1 Proper Handling of Inadvertent Discovery of Cultural and Paleontological Resources:

If archaeological resources and/or human remains are encountered during construction, compliance with federal and State regulations and guidelines regarding the treatment of cultural resources and/or human remains shall be required.

1. If prehistoric or historic-period archaeological resources are encountered during project implementation, all construction activities within 100-feet shall halt and the City shall be notified.

2. A qualified archaeologist, defined as one meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology, shall inspect the findings within 24-hours of discovery and report the results of the inspection to the City.

3. If the identified archaeological resource is determined to be prehistoric, the City and qualified archaeologist shall coordinate with and solicit input from the appropriate Native American Tribal Representatives regarding significance and treatment of the resource as a Tribal Cultural Resource. Any Tribal Cultural Resources discovered during project work shall be treated in consultation with the tribe, with the goal of preserving in place with proper treatment.

4. If the City determines that the resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4. Consistent with CEQA Guidelines Section 15126.4(b)(3), mitigation shall be accomplished through either preservation in place or, if preservation in place is not feasible, data recovery through excavation.

5. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding resource site into a permanent conservation easement.

6. If avoidance or preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to recover the scientifically consequential information from and about the resource, which shall be reviewed and approved by the City prior to any excavation at the resource site.

7. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2, including creation of a treatment plan. Treatment for most resources would consist of (but would not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of...
results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

8. In the event of discovery or recognition of any human remains during Project implementation, Project construction activities within 100-feet of the find shall cease until the Sacramento County Coroner has been contacted to determine that no investigation of the cause of death is required. If the County Coroner determines the remains are of Native American origin, they shall contact the NAHC to identify the MLD. The MLD shall be asked to make a recommendation to the landowner for treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. The City shall comply with requirements identified by the NAHC for the appropriate means of treating the human remains and any associated funerary objects (CEQA Guidelines Section 15064.5[d]).

9. If discovery is made of items of paleontological interest, the contractor shall immediately cease all work activities in the vicinity (within approximately 100-feet) of the discovery. After cessation of excavation the contractor shall immediately contact the City. The contractor shall not resume work until authorization is received from the City. Any inadvertent discovery of paleontological resources during construction shall be evaluated by a qualified paleontologist. If it is determined that the project could damage a unique paleontological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines. If avoidance is not feasible, the paleontologist shall develop a treatment plan in consultation with the City.

Mitigation Measure CUL-2 Worker Awareness Training:

A preconstruction training session conducted by a qualified archaeologist and paleontologist shall be held for all construction personnel and staff performing excavation activities on the Project site. Training materials shall address procedures to be followed and appropriate conduct to be adhered to if unanticipated archaeological materials are encountered during the Project work. All construction personnel involved in earth moving activities shall attend preconstruction training in person prior to the start of construction. Training shall include: the purpose of archaeological monitoring; how to identify archaeological resources (including Tribal Cultural Resources); how to respond to the discovery of a potential resource; and how to maintain proper discovery records and adhere to professional protocols during construction.

Mitigation Measure CUL-3 Proper Handling of Inadvertent Discovery of Human Remains:

If human remains are encountered, work shall halt in the vicinity and the County Coroner shall be notified immediately pursuant to PRC Section 7050.5. At the same time, an archaeologist shall be contacted to evaluate the situation. If human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD shall have an opportunity to make a recommendation 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 PRC Section 5097.98.
3.5 GEOLOGY AND SOILS

This section describes applicable regulations pertaining to geology and soil resources and evaluates the proposed Project’s potential impacts to the established baseline environmental setting using established thresholds of significance. Paleontological resources as they relate to geological features are addressed in Section 3.4, “Cultural Resources and Tribal Cultural Resources.”

3.5.1 Regulatory Framework

3.5.1.1 Federal

Uniform Building Code Chapter 18, Division 1 Section 1803.2 and 1804.5

Uniform Building Code Chapter 18, Division 1 Section 1803.2 and 1804.5 The Uniform Building Code (UBC) 1994, Chapter 18, Division 1 Section 1803.2 mandates that special foundation design consideration be employed if the soil Expansion Index is 20, or greater in accordance with Table 18-1-B. The methodology and scope for a geotechnical investigation are described in UBC Section 1803, and requires an assessment of a variety of factors, such as slope stability, soil strength, adequacy of load-bearing soils, the presence of compressible or expansive soils, and the potential for liquefaction. The required content of the geotechnical report includes recommendations for foundation type and design criteria. These recommendations can include foundation design provisions that are intended to mitigate the effects of expansive soils, liquefaction, and differential settlement. In general, mitigation can be accomplished through a combination of ground modification techniques (i.e., stone columns, reinforcing nail and anchors, deep soil mixing, etc.), selection of an appropriate foundation type and configuration, and use of appropriate building/foundation structural systems. Section 1804.5 Excavation, Grading, and Fill require the preparation of a geotechnical report where a building will be constructed on compacted fill. (UBC 1994)

<table>
<thead>
<tr>
<th>EXPANSION INDEX</th>
<th>POTENTIAL EXPANSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>Very low</td>
</tr>
<tr>
<td>21-50</td>
<td>Low</td>
</tr>
<tr>
<td>51-90</td>
<td>Medium</td>
</tr>
<tr>
<td>91-130</td>
<td>High</td>
</tr>
<tr>
<td>Above 130</td>
<td>Very high</td>
</tr>
</tbody>
</table>

The International Building Code (IBC) replaced earlier regional building codes (including the Uniform Building Code) in 2000 and established consistent construction guidelines for the nation. In 2006, the IBC was incorporated into the 2007 California Building Code (CBC) (see State regulations below in Section 3.5.1.2), and currently applies to all structures being constructed in California. The national model codes are therefore incorporated by reference into the building codes of local municipalities. The CBC includes building design and construction criteria that take into consideration the State’s seismic conditions.
Clean Water Act

The Clean Water Act (CWA, 33 USC 1344) focuses primarily on waters of the United States, and is more thoroughly described in Section 3.3 (Biological Resources). However, the CWA focuses on sediment control in two aspects. First, the United States Army Corp of Engineers (USACE) administers Section 404, which regulates the discharge of fill into waters of the United States. Secondly, the State Water Resources Control Board (SWRCB) administers Section 401 which applies to stormwater discharges, where erosion control is an integral part of achieving permit compliance.

Earthquake Hazards Reduction Act of 1977

The Earthquake Hazards Reduction Act of 1977 established the National Earthquake Hazards Reduction Program (NEHRP) “to reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program.” The four principal goals of the NEHRP are:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation;
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems;
- Improve earthquake hazards identification and risk assessment methods, and their use; and
- Improve the understanding of earthquakes and their effects.

Many of the tools used to assess, as well as mitigate, earthquake hazards and impacts were developed under the NEHRP.

3.5.1.2 State

Alquist-Priolo Fault Zoning Act

The Alquist-Priolo Fault Zoning Act (AP Act), administered by the California Geological Survey (CGS), provides a mechanism for reducing losses from surface fault ruptures on a statewide basis. The AP Act requires the mapping of zones around active faults in California, in an effort to prohibit the construction of structures for human occupancy on active faults and minimize damage due to rupture of a fault. Active faults are those that have ruptured within the past 11,000 years. Where the AP Act identifies an Earthquake Fault Zone, a geologic investigation and report is necessary to prevent siting of buildings on active fault traces.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act governs the responsibilities of city, county, and state agencies in identifying and mapping seismic hazard zones and mitigation seismic hazards to protect public health and safety in accordance with the provision of the California Public Resources Code, Division 2. Geology, Mines and Mining, Seismic Hazards Mapping – Chapter 7.8. The publication delineates zones where earthquakes could cause hazardous ground shaking and ground failure, including liquefaction and landslides. Currently, zones near the San Andreas Fault in the urban centers of the Greater San
Francisco Bay Area and Los Angeles have been delineated. Local cities and counties within these zones regulate construction in order to minimize loss associated with these seismic hazards.

California Standard Building Code

Title 24, Part 2 of the California Building Standards Code of the California Code of Regulations contains specific requirements for construction with respect to earthquakes and seismic hazards intended to be protective of public health. Chapter 16 Section 1613 Earthquake Loads of the 2016 California Building Code (effective January 1, 2017) deals with Structural Design and requires that every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions. (California 2016)

3.5.3 Local

City of Sacramento 2035 General Plan (City of Sacramento 2015a)

Goal EC 1.1 Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

Policy EC 1.1.1 Review Standards. The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best Management Practices (BMPs) in site design and building construction methods.

Policy EC 1.1.2 Geotechnical Investigations. The City shall require geotechnical investigations to determine the potential for ground rupture, earth shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

Policy ER 1.1.7 Construction Site Impacts. The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinances.

City of Sacramento Multi-Hazard Emergency Plan

The Multi-Hazard Emergency Plan addresses the City of Sacramento’s planned response to extraordinary emergency situations associated with natural disasters, including flood events, seismic events, technological incidents, and nuclear defense operations. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City’s overall responsibilities for protecting life and property during an emergency. The Emergency Plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector.

Sacramento County Multi-Hazard Mitigation Plan

The Sacramento County Multi-Hazard Mitigation Plan aims to reduce or eliminate long term risk to people or property from natural disasters, including flood and seismic events.
Sacramento City Code  
Chapter 15.88 Grading and Erosion and Sediment Control

The City’s grading ordinance is enacted for the purpose of regulating grading on property within the City to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff from construction sites; to comply with the City’s National Pollutant Discharge Elimination System (NPDES) Permit issued by the Regional Water Quality Control Board (RWQCB); and to ensure that the graded site within the City limits complies with all applicable City ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the City.

Chapter 17.720 Surface Mining and Reclamation

This chapter provides effective and comprehensive surface mining and reclamation policies and regulations to properly carry out the requirements of Surface Mining and Reclamation Act (SMARA), and other applicable regulations to ensure that: adverse environmental and other effects of surface mining operations will be prevented or minimized and that the reclamation of mined lands will provide for the beneficial, sustainable, long-term productive use of the mined and reclaimed lands; and the production and conservation of minerals will be encouraged, while eliminating hazards to public health and safety and avoiding or minimizing adverse effects on the environment.

Department of Utilities

The City of Sacramento Department of Utilities (DOU) maintains policies and guidelines regarding grading, erosion control, stormwater drainage design, inspection, and permitting with responsibility for Grading Permits and Construction Permits.

Building Permit - Site-Specific Geotechnical Investigation

A site-specific geotechnical investigation is required prior to construction. The geotechnical evaluation must provide grading and design recommendations to address slope, channel-wall, and foundation instability; groundwater level and need for dewatering; erosion control; expansive soils; and differential settlement. The investigation must evaluate the soil types, test for shrink-swell potential, and determine preliminary load-bearing and strength characteristics. The geotechnical evaluation must be provided to the City as part of the City’s building permit process. The City must review the geotechnical report along with project design to confirm that the recommendations in the geotechnical report are reflected in project design.

3.5.2 Environmental Setting

3.5.2.1 Regional Geology

The proposed Project site is located within the geomorphic province of the Great Valley of California, which is characterized by a flat alluvial plain that is approximately 50 miles wide and 400 miles long. This region is within the Sacramento Valley which is drained by the Sacramento River and the San Joaquin Valley which is drained by the San Joaquin River. The mountain regions surrounding the Great Valley
include the Sierra Nevada to the East, Tehachapi Mountains to the South, the Coastal Range to the West, and Cascade Range to the North. The region is considered to be relatively flat with gradual slopes ranging from sea level to 75 feet amsl (Sacramento 2009).

### 3.5.2.2 Local Geology

McKinley Park is located approximately one mile south of the American River and 1.5 miles east of Downtown Sacramento. The local topography of the area is relatively flat with high proportions of landscaping elements and urbanized human activity. The surface deposits in this region are characterized as Holocene Alluvium that contains sand, young unweathered gravel, and silt up to 30 feet thick. Underneath this young alluvium, consolidated and weathered gravel, sand, soil, and clay deposits are found.

### 3.5.2.3 Project Site Soils

Prior to construction a sit specific geotechnical report would be conducted for the Project area to discuss the basic soils condition of the area in order to identify the specific soil properties of McKinley Park. The results of the Natural Resource Conservation Service (NRCS) Web Soil Survey were therefore used to identify the broader Project area soils that have the potential to occur in the region.

Based on the United States Department of Agriculture’s (USDA) NRCS Web Soil Survey for Sacramento, there are two different soils series present within the proposed Project site (NRCS 2017). The soil series map units are Columbia-Urban land complex, zero to two percent slopes and Rossmoor-Urban land complex, zero to two percent slopes.

**Columbia-Urban land complex, drained, zero to two percent slopes**

Most of McKinley Park is within the Columbia-Urban land complex series which consists of about 60-percent Columbia soil and 30-percent Urban land (NRCS 2017). Slopes are zero to two percent. This component is on low flood plains, valleys, natural levees. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at zero inches during January, February, March, and December. Organic matter content in the surface horizon is about one percent. Non-irrigated land capability classification is 3s. This soil meets hydric criteria. (NRCS 2017)

Urban land consists of areas covered by impervious surfaces or structures and the soil material under the impervious surfaces is similar to that of the Columbia soil, although it may have been truncated or otherwise altered. The main limitations affecting urban uses are the slow permeability in the clayey buried layer, the depth to a season high water table, and the hazard of sloughing. Shallow excavations, such as trenches and holes, are limited by the seasonal highwater table (NRCS 1987).
Rossmoor-Urban land complex, zero to two percent slopes

Only a small portion in the south-east portion of McKinley Park is within the Rossmoor-Urban land complex which consists of about 55-percent Rossmoor soil and 30-percent Urban land. Slopes are zero to two percent. This component is on valleys, narrow high flood plains. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about three percent. Non-irrigated land capability classification is 3c. This soil does not meet hydric criteria (NRCS 2017).

3.5.2.4 Ground Failure, Liquefaction, and Landslides

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits, along with recent Holocene age deposits, are more susceptible to liquefaction, while older deposits of clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking. The Project site consists of well drained, coarse-loamy soils that have a low potential for liquefaction or ground failure to occur. However, the relatively shallow groundwater table and ground shaking that could occur from the surrounding earthquakes could increase the liquefaction potential in the Project area. Key design standards would be implemented in order to reduce the liquefaction potential and ensure structure stability.

Landslides occur most frequently during or following large storms or earthquakes. Landslides are most likely to take place in areas where they have previously occurred. According to the CGS Landslide Map, there are no potential areas for landslides or liquefaction within the proposed Project area (CGS 2015).

3.5.2.5 Seismic Activity

No seismic hazard zones have been recorded in the proposed Project area under the Seismic Hazard Mapping Act. Additionally, there are no known faults that occur within or adjacent to the City of Sacramento. As discussed in the geotechnical report, the closest known faults within 50-miles of the proposed Project site include: The Foothills Fault System (approximately 28-miles to the southeast and northeast), the Great Valley Fault (approximately 32-44 miles to the west), the Concord Fault (approximately 49 miles to the southwest), the Hunting Creek-Berryessa Fault (approximately 38-miles to the northwest), the Greenville Fault (approximately 51-miles to the southwest), and the West Napa Fault (approximately 51-miles to the west). Although there are no known faults within the City limits, shaking has occurred within the City due to the surrounding fault lines. These shaking events depend on the magnitude and intensity of the surrounding earthquakes. As stated in Sacramento’s 2035 General Plan, the maximum intensity expected from ground shaking that could occur in the City limits would be between VI and VII on the Modified Mercalli Intensity Scale. This would include minimal damage to buildings with walls, monuments, and panel walls thrown out of frames (City of Sacramento 2015a).
3.5.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to geology and soils. When an impact is determined to be potentially significant, mitigation measures were identified that would reduce or avoid that impact.

3.5.3.1 Methodology for Analysis

Using the City of Sacramento 2035 General plan, the NRCS Web Soil Survey, CGS regulatory maps, the geotechnical interpretative report developed for the Project area, and the CEQA Guidelines’ Appendix G Environmental Checklist for guidance, the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.5.3.2 based on data reviewed from these sources to determine whether potential geology and soils impacts from the proposed Project baseline setting (Sections 3.5.1 and 3.5.2) would be significant. A potential impact would be significant if the proposed Project would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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 or strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction;
  - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- 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;
- Be located on expansive soil, as (previously) defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
- 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.

3.5.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.
Impact GEO-1 Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- 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 as defined by the Division of Mines and Geology Special Publication 42 or strong seismic ground shaking;

- Seismic-related ground failure, including liquefaction; or

- Landslides.

Impact GEO-1 Analysis

Rupture of a Known Earthquake Fault or Strong Seismic Ground Shaking

As stated above, no known faults or Alquist-Priolo Earthquake Fault Zones occur within 50 miles of the proposed Project site which means that the potential to expose people or structures to risk from earthquakes is limited. Although the City has experienced some ground shaking from the foothill and bay area fault system, any impacts or damage from this shaking occurrence was minimal and did not cause any public safety problems or cause substantial damage to buildings or structures (City of Sacramento 2015a). The proposed Project would meet applicable structural standards designed to withstand potential shaking that could occur in the area, thus limiting potential for placing people or structures at risk for substantial adverse effects from rupture of a known earthquake fault. Therefore, the potential for rupture of a known earthquake fault which could expose people or structures to risk from the proposed Project is considered less than significant.

Seismic-Related Ground Failure

The proposed Project is not located within a known liquefaction zone nor are there any fault zones near the Project area that could cause ground failure. The soils in the Project area are characterized as well-drained coarse-loamy soils that have a low potential for liquefaction to occur. Additionally, Project structures would be built in conformance with applicable building codes which include standards for preventing structure failure from earthquake related ground shaking. Therefore, the potential for the proposed Project to expose people or structures to potentially adverse effects related to liquefaction is considered less than significant.

Landslides

According to the CGS Landslide Inventory, no active landslide deposits have been identified in the proposed Project area which means that the potential for a landslide to occur in the area is low (CGS 2015). The Project site and the City itself are relatively flat and are not surrounded by any landmass features such as hills or mountains that would cause landslides. Therefore, the potential for landslides to occur as a result of the proposed Project would be less than significant.
Therefore, the proposed Project construction and operational impacts related to rupture of a known fault zone, ground shaking, ground failure, liquefaction, or landslides would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

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**Impact GEO-2   Potential to result in substantial soil erosion or the loss of topsoil.**

Impact GEO-2 Analysis

Due to the relatively flat nature of the Park, substantial soil loss from stormwater runoff is not anticipated, however, the proposed Project would consist of excavating and movement of large quantities of soil which could result in the loss of topsoil if not properly handled. Temporary stockpiles of soil have the potential to result in loss of top soil during construction when soils are exposed and being transported, however, all projects in the City are required to comply with the City’s Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control (City of Sacramento DOU 2013). These procedures include requirements for obtaining a grading permit and general design standards as well as BMPs for construction related grading and drainage activities. MM GEO-1 would incorporate the principals outlined in these procedures in an Erosion Control Plan for the City and the Contractor to follow which would minimize the potential erosion and loss of topsoil from the proposed Project construction activities. The Erosion Control Plan would include requirements from the NPDES Permit related to stormwater, erosion, and sediment control. Therefore, construction related erosion and loss of top soils would be considered less than significant with MM GEO-1 incorporated.

Once constructed, the Project area would be regraded with a slight slope towards 33rd Street to prevent ponding within the Park and to allow for adequate stormwater flow into the drains along 33rd Street. All topsoil exposed as a part of the proposed Project would be revegetated and park features would be restored or enhanced. As such, the potential for substantial erosion would be limited since the site would be revegetated and site grading is designed for adequate drainage which would help limit water flows or ponding in unintended areas limiting exposed soils that could be subject to erosion. Therefore, operational impacts from the proposed Project related to erosion and loss of top soil would be considered less than significant.

Through the implementation of MM GEO-1 impacts associated with erosion and loss of topsoil would be less than significant with mitigation.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM GEO-1
Impact GEO-3

Potential to 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.

Impact GEO-3 Analysis

As discussed in Impact GEO-1 above, the potential for ground shaking in the Project area is considered low and it is not expected that soil issues resulting from interaction with groundwater from the groundwater table or seismic related ground failure would occur. The Project area consists of two soil series, both of which are well-drained and not known to be unstable. Therefore, landslides, lateral spreading, subsidence, liquefaction or collapse in the Project area during construction or the operation of the proposed Project is not expected. Therefore, impacts would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact GEO-4

Potential to 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.

Impact GEO-4 Analysis

Expansive or collapsible soils are characterized by the ability to undergo significant volume change (shrink and swell) as a result of variation in soil moisture content. Expansive soils are commonly very fine-grained with a high to very high percentage of two to one clays (NRCS 1993). Soil moisture content can change due to many factors, including perched groundwater, landscape irrigation, rainfall, and utility leakage. Engineering standards govern expansion potential evaluations and the Expansion Index (UBC Table 18-I-B) is calculated pursuant to the UBC Test Standard 18-1 (ASTM D-4829) in the 1994 UBC. Section 1803.2 of the 1994 Uniform Building Code directs expansive soil tendency be graded by this method. The UBC mandates that “special [foundation] design consideration” be employed if the Expansion Index is 20, or greater (UBC Table 18-1-B).

The proposed Project is not known to occur in an area with soils that have high clay content. The soils in the Project area consist mostly of well-drained coarse-loamy soils and have a low to moderate expansion potential. MM GEO-2 would require a site specific geotechnical investigation and report to determine soil classification. This report would help determine if the site is located on an expansive soil type and the feasibility of constructability of the proposed Project. Furthermore, while the NRCS Soil Survey of Sacramento County has identified Columbia-Urban land complex soils to have moderate shrink swell potential (NRCS 2017), the proposed Project design would adhere to the IBC and structural design principals such as using engineered fill surrounding underground structures to cushion against any expansive activity in adjacent soils. Therefore, the impact associated with expansive soils in conjunction with the proposed Project would be less than significant with mitigation incorporated.
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**Level of Significance**: Less than Significant with Mitigation

**Mitigation Measure**: MM GEO-2

<table>
<thead>
<tr>
<th>Impact GEO-5</th>
<th>Potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.</th>
</tr>
</thead>
</table>

**Impact GEO-5 Analysis**

The proposed Project is designed to improve the current combined sewer system and does not include uses for septic systems. As such, it would not affect the use of septic tanks or alternative wastewater disposal systems. The proposed Project lies within a highly-urbanized area that would not be suitable for septic or alternative wastewater disposal systems. Therefore, there would be no impact to developing septic tanks or alternative wastewater disposal systems.

**Level of Significance**: No Impact

**Mitigation Measure**: None Required

### 3.5.4 Mitigation Measures

**Mitigation Measure GEO-1: Prepare an Erosion Control Prevention Plan in Accordance with City Standards**

The construction contractor shall be required to comply with the City of Sacramento’s Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control and develop an Erosion Control Plan to reduce the risk of substantial soil erosion or loss of topsoil. The Erosion Control Plan shall identify appropriate BMPs to prevent erosion or soil loss from the proposed Project site. These measures shall include the implementation of construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, revegetation, and temporary covers as appropriate. The Plan shall also meet post-construction performance standards to ensure the post construction site is stabilized appropriately.

**Mitigation Measure GEO-2: Conduct a Site-Specific Geotechnical Investigation**

Before construction begins, a geotechnical investigation shall take place of the Project site soils in order to determine the feasibility of constructability of the proposed Project. The geotechnical investigation shall include at a minimum the characteristics of the Project site soils including:

- Subsurface soil and groundwater conditions;
- Limitations of the investigation; and
- Summarization or any laboratory results, water level measurements, or other factual data.
3.6 GREENHOUSE GAS EMISSIONS

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions. It also describes impacts on GHG emissions that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.6.1 Regulatory Framework

3.6.1.1 Federal

Over the past decade, a number of applicable federal requirements have been developed. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Greenhouse Gas Endangerment. In Massachusetts v. Environmental Protection Agency (EPA) (Supreme Court Case 05-1120), decided on April 2, 2007, the Supreme Court found that four GHGs, including carbon dioxide (CO₂), are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA) and that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- **Endangerment Finding**: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.

- **Cause or Contribute Finding**: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the U.S. Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator findings (EPA 2009b).

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On May 7, 2010, the EPA and the Department of Transportation’s National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States. A petition for writ of certiorari to the United States Court of Appeals for the District of Columbia Circuit was denied by the Supreme Court on October 15, 2013.
The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012 (EPA 2012c). The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams per mile of CO₂ in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions from the 2014 to 2018 model years.

**Mandatory Reporting of Greenhouse Gases.** The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.

**New Source Review.** The EPA issued a final rule on May 13, 2010 that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these CAA permitting programs to limit which facilities would be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, EPA states:

*This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided*
under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities.

**Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.** As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new affected fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology.

**Cap and Trade.** Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. Successful examples in the United States include the Acid Rain Program and the NOx Budget Trading Program in the northeast. There is no federal cap and trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

### 3.6.1.2 State

**Legislative Actions to Reduce GHGs**

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 California Global Warming Solutions Act of 2006 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

**Assembly Bill 32.** The California State Legislature enacted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “Greenhouse gases” as defined under AB 32 include carbon dioxide, methane, NOx, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The California Air Resources Board (CARB) is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:
Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The CARB approved the 1990 GHG emissions level of 427 million metric tons of carbon dioxide equivalents (MMT CO₂e) on December 6, 2007 (CARB 2008a). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMT CO₂e. Emissions in 2020 in a “business as usual” scenario were estimated to be 596 MMT CO₂e, which do not account for reductions from AB 32 regulations (CARB 2008a). At that level, a 28 percent reduction was required to achieve the 427 MMT CO₂e 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 MMT CO₂e. Therefore, under the updated forecast, a 21.7 percent reduction from business as usual (BAU) is required to achieve 1990 levels (CARB 2010).

Progress in Achieving AB 32 Targets and Remaining Reductions Required

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The CARB also prepared updated emission inventories for 2000 through 2011 to show progress achieved to date (CARB 2013). Executive Order S-3-05 includes a target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target. Also shown are the average reductions needed from all statewide sources (including all existing sources) to reduce GHG emissions back to 1990 levels.

- 1990: 427 MMT CO₂e (AB 32 2020 Target)
- 2000: 463 MMT CO₂e (an average 8 percent reduction needed to achieve 1990 base)
- 2010: 450 MMT CO₂e (an average 5 percent reduction needed to achieve 1990 base)
- 2020: 545 MMT CO₂e BAU (an average 21.7 percent reduction from BAU needed to achieve 1990 base)

**CARB Scoping Plan.** The CARB’s Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020 to comply with AB 32 (CARB 2008b). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
• Achieving a statewide renewables energy mix of 33 percent;
• Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
• Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
• Adopting and implementing measures pursuant to existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
• Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program would help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that would not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

The CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California’s climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California’s climate change priorities and activities for the next several years. The Update does not set new targets for the State, but describes a path that would achieve the long term 2050 goal of Executive Order S-05-03 for emissions to decline to 80 percent below 1990 levels by 2050 (CARB 2014).

The CARB has no legislative mandate to set a target beyond the 2020 target from AB 32 or to adopt additional regulations to achieve a post-2020 target. The Update estimates that reductions averaging 5.2 percent per year would be required after 2020 to achieve the 2050 goal. With no estimate of future reduction commitments from the State, identifying a feasible strategy including plans and measures to be adopted by local agencies is not currently possible.

Senate Bill 32

On September 8, 2016, Senate Bill 32 (SB 32) was signed by Governor Brown, this bill would require the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030.
Executive Orders Related to GHG Emissions

California’s Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

**Executive Order S-13-08.** Executive Order S-13-08 states that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the “...first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S 3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

**Executive Order B-30-15s.** Governor Jerry Brown signed Executive Order B-30-15s on April 29, 2015. The following are major provisions of the Executive Order:

1. A new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

2. All state agencies with jurisdiction over sources of greenhouse gas emissions shall implement measures, pursuant to statutory authority, to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 greenhouse gas emissions reductions targets.

3. The California Air Resources Board shall update the Climate Change Scoping Plan to express the 2030 target in terms of MMT CO₂e.

The executive order does not apply directly to cities, counties, and special use districts such as EID, but would lead to the preparation of a new CARB Scoping Plan and the development of regulations to achieve post-2020 reduction targets.
Executive Order S-01-07 - Low Carbon Fuel Standard. The Governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the CARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to CARB for consideration as an “early action” item under AB 32. The CARB adopted the Low Carbon Fuel Standard on April 23, 2009. The Low Carbon Fuel Standard was challenged in the United States District Court in Fresno in 2011. The court’s ruling issued on December 29, 2011 included a preliminary injunction against CARB’s implementation of the rule. The Ninth Circuit Court of Appeals reversed the decision of the District Court in September 2013 and denied a petition to rehear a challenge on January 22, 2014. The Renewable Fuels Association and Growth Energy filed a petition to the US Supreme Court on March 20, 2014 challenging the Court of Appeals decision. On June 30, 2014, the U.S. Supreme Court announced that it would not review the constitutionality of the California Low Carbon Fuel Standard (LCFS).

To address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-CI fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The public hearing for the new LCFS regulation was held on February 19, 2015. The Final Approval and Office of Administrative Law action was not yet posted as of April 29, 2015 (CARB 2015).

3.6.1.3 Local

Sacramento Area Council of Governments Sustainable Communities Strategy

In April 2012, Sacramento Area Council of Governments (SACOG), the designated Metropolitan Planning Organization (MPO) for the Sacramento region, adopted a Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2012). Building on prior plans including the Blueprint Growth Strategy discussed below and the 2008 MTP, the SCS accommodates future growth through a more compact land use pattern largely within the region’s current development footprint, emphasizes operational improvements over new roadway capacity projects, and reflects other factors that have tended to reduce motor vehicle use. The SCS demonstrates that, if implemented, the region will achieve a 9 percent per capita GHG reduction in passenger vehicle emissions in 2020 and a 16 percent reduction in 2035. These reductions meet the targets for SACOG of 7 percent and 16 percent per capita GHG reduction from 2005 for the years 2020 and 2035, respectively, established by CARB. In June 2012, CARB issued an Acceptance of GHG Quantification Determination for the SACOG SCS, indicating that CARB concurs with SACOG’s quantification of GHG emission reductions from the final MTP/SCS and its determination that the SCS would achieve the 2020 and 2035 targets established by CARB.
City of Sacramento 2035 General Plan

**Policy ER 6.1.5 Community Greenhouse Gas Reductions.** The City shall reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020, and strive to reduce community emissions by 49 percent and 83 percent by 2035 and 2050, respectively.

**ER 6.1.6 Municipal Greenhouse Gas Reductions.** The City shall maintain and implement its Phase 1 Climate Action Plan to reduce municipal GHG emissions by 22 percent below 2005 baseline level by 2020, and strive to reduce municipal emissions by 49 percent and 83 percent by 2035 and 2050, respectively.

**Policy ER 6.1.8 Additional GHG Emission Programs.** The City shall continue to evaluate the feasibility and effectiveness of new policies, programs, and regulations that contribute to achieving the City’s long-term GHG emissions reduction goals.

**Policy ER 6.1.9 Climate Change Assessment and Monitoring.** The City shall continue to assess and monitor performance of GHG emissions reduction efforts beyond 2020, progress toward meeting long-term GHG emission reduction goals, the effects of climate change, and the levels of risk in order to plan a community that can adapt to changing climate conditions and be resilient to negative changes and impacts.

**City of Sacramento Climate Action Plan**

In order to directly address the issue of climate change and GHG emissions, the City of Sacramento adopted its Climate Action Plan (CAP) on February 14, 2012. Then as part of the General Plan update process, the CAP was incorporated into the 2035 City of Sacramento General Plan. The City additionally, adopted in 2016, a CAP for Internal Operations for City facilities. The CAP describes GHG emissions from uses and activities within the City and establishes policies, actions, and implementation measures to reduce existing and future GHG emissions. As part of the CAP development process, a baseline GHG emissions inventory for the year 2005 was created that determined the City of Sacramento generated approximately 4.1 MMT CO$_2$e in 2005. The CAP also established a GHG emissions reduction target of 15 percent below 2005 levels by the year 2020 and GHG reduction goals of 38 percent below 2005 levels by the year 2030 and 83 percent below 2005 levels by the year 2050. The City intends to use the CAP to streamline CEQA review for projects that are determined to be consistent with the CAP, pursuant to Section 15183.5 of the State CEQA Guidelines.

**3.6.2 Environmental Setting**

GHG and climate change are a cumulative global issue. CARB and the United States Environmental Protection Agency (USEPA) regulate GHG emissions within the State of California and the United States, respectively. While the CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction.

Many chemical compounds found in the Earth’s atmosphere act as GHGs, which allow sunlight to enter the atmosphere freely. When sunlight strikes the Earth’s surface, some of it is reflected back towards
space as infrared radiation (heat). GHGs absorb this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy sent from the sun to the Earth’s surface should be about the same as the amount of energy radiated back into space, leaving the temperature of the Earth’s surface roughly constant. Many gases exhibit these “greenhouse” properties. Some of them occur in nature (water vapor, carbon dioxide, methane, and nitrous oxide), while others are exclusively human-made (like gases used for aerosols).

The principal climate change gases resulting from human activity that enter and accumulate in the atmosphere are listed below:

**Carbon Dioxide (CO₂):** CO₂ enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., manufacture of cement). CO₂ is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.

**Methane (CH₄):** CH₄ is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.

**Nitrous Oxide (N₂O):** N₂O is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

**Fluorinated Gases:** Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) are synthetic, powerful climate-change gases that are emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochloric fluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent climate-change gases, they are sometimes referred to as high Global Warming Potential (GWP) gases.

### 3.6.2.1 Global Warming Potential

Global Warming Potential (GWP) serves as the quantified measure of the relative effectiveness of a gas to absorb infrared radiation, remain in the atmosphere, and contribute towards global warming. CO₂, the most abundant GHG, serves as the reference gas for the GWP, with a GWP of 1.16 The GWPs used by the Bay Area Air Quality Management District (BAAQMD) are shown in Table 3.6-1, where CH₄ is 21 times more potent at contributing to global warming than CO₂, while SF₆ is 23,900 time more potent. Thus, CO₂ is used as the reference GHG for all GHGs. GHG emissions, which consider all GHGs, can also be presented as CO₂ equivalent (CO₂e). The CO₂e measure takes into consideration all of the GHGs, as measured by the applicable GWP.
Table 3.6-1 Global Warming Potential for Greenhouse Gases

<table>
<thead>
<tr>
<th>Greenhouse Gas</th>
<th>Relative GWP (GWP of CO₂=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂</td>
<td>1</td>
</tr>
<tr>
<td>CH₄</td>
<td>21</td>
</tr>
<tr>
<td>NOₓ</td>
<td>310</td>
</tr>
<tr>
<td>HFCs and PFCs</td>
<td>9,090-11,700</td>
</tr>
<tr>
<td>SF₆</td>
<td>23,900</td>
</tr>
</tbody>
</table>

Source: BAAQMD 2010

3.6.3 Environmental Impacts

This section analyzes the proposed Project's potential to result in significant impacts from GHG emissions. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.6.3.1 Methodology of Analysis

Using the Sacramento Metropolitan Air Quality Management District (SMAQMD) Guide to Air Quality screening thresholds for significance for CO₂e (SMAQMD 2009), applicable air quality rules and regulations, and the CEQA Guidelines’ Appendix G Environmental Checklist for guidance, the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.6.3.2 based on Project estimates from California Emissions Estimate Model (CaEEMod) to determine whether potential air quality impacts from the proposed Project on the baseline setting (Sections 3.6.1 and 3.6.2) would be significant. A potential impact would be significant if the proposed Project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions.

To quantify the predicted GHG emissions from the proposed Project, an environmental specialist at Stantec conducted an evaluation using CaEEMod. CaEEMod calculates air and GHG emissions from construction and operation of a project.

To meet targets established by AB 32, California must reduce current GHG emissions and achieve 1990 emissions levels of 427 MMT CO₂e by 2020. The 2020, business as usual, emissions baseline used in the 2008 Scoping Plan was 596 MMT CO₂e. On September 8, 2016, SB 32 was approved by California State Governor Jerry Brown, this bill would require the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level 2030.

Due to the global implications of climate change, it is difficult to determine the impacts of a relatively small contribution to GHG emission from an individual project. There is no simple metric that can determine if a
project would impact cumulative GHG emission levels or conflict with the goals of AB 32. It is possible to estimate a project’s localized GHG emissions, but it is difficult to determine how those emissions would translate into physical impacts to the environment. For this analysis, predicted proposed Project GHG emissions were compared to AB 32 Scoping plan action measures and the SMAQMD Guidance GHG threshold for land use projects of 1,100 metric tons CO$_2$e/year (for construction GHG emissions).

The SMAQMD has established GHG emission thresholds for construction phase, operational phase, and stationary source projects. SMAQMD emissions significance thresholds consider any construction phase of a project emitting over 1,100 metric tons/year of CO$_2$e would be considered significant (SMAQMD 2009a).

GHG emissions associated with the proposed Project were estimated using CO$_2$e emissions as a proxy for all GHG emissions. This is consistent with the current reporting protocol of the California Climate Action Registry (CCAR). According to CalEEMod, all GHGs are reported in CO$_2$e. In order to obtain the CO$_2$e, an individual GHG is multiplied by its GWP. The GWP designates on a pound for pound basis the potency of the GHG compared to CO$_2$. CalEEMod uses GWP from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (SAR). GWPs from the SAR were selected instead of more recent GWPs since it is the basis used in regulations and international protocols at this time (e.g., California and Federal GHG Reporting Programs, The Climate Registry) (CalEEMod, Appendix C: Calculation Details for CalEEMod).

3.6.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact GHG-1</th>
<th>Potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</th>
</tr>
</thead>
</table>

Impact GHG-1 Analysis

Increasing cumulative GHG emissions are associated with global climate change and the resulting adverse environmental impacts. These impacts include loss of species diversity, increased severe weather events, sea level rise, ocean acidification, loss of snowpack, etc. (IPCC 2012). The SMAQMD recommends that GHGs be quantified and disclosed pursuant to provisions and precedents stemming from AB 32.

The primary sources of proposed Project-related GHG emissions are anticipated to be combustion of fossil fuels from the operation of internal combustion engines used during Project construction (portable equipment, off road equipment, and vehicles). CO$_2$e emissions during proposed Project operation would be minimal and would result from operation and maintenance of the system like running pumps (approximately a few times a year) or facility lighting. Operational GHG emissions would be negligible and are not discussed further in this analysis.
GHG emissions of the proposed Project construction were calculated using CalEEMod. The CalEEMod outputs were compared to the SMAQMD significance thresholds of 1,100 tons/year CO\textsubscript{2}e. Construction of the proposed Project would emit GHG emissions from both upstream emissions and direct sources. Upstream emissions sources refer to emissions that were generated during the manufacturing of products used during construction activities. Emissions from upstream sources could include, but are not limited to; emissions from the manufacture of cement, the manufacture of steel, and the transportation of building material to the seller (CalEEMod only calculates the emissions from transportation trips to the Project area). Upstream (and life cycle) emissions are not within the control of the proposed Project and would be speculative and, as such, CEQA Guidelines Section 15144 and 15145; state that further evaluation on a Project specific level is not warranted. Therefore, upstream estimates were not included in this analysis. However, CalEEMod estimates were used to model construction estimates. The results of CalEEMod indicate that construction emissions would total 842.8 tons/year of CO\textsubscript{2}e, as shown as follows in Table 3.6-2.

<table>
<thead>
<tr>
<th>Table 3.6-2 Project CalEEMod Predicted CO2e Emissions Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Construction Source CO2e Emission Estimates (metric tons/year unmitigated)</td>
</tr>
<tr>
<td>SMAQMD CO2e Emissions Significance Thresholds (metric tons/year)</td>
</tr>
</tbody>
</table>

Since the estimated proposed Project CO\textsubscript{2}e emissions from construction would be 842.8 metric tons/year without mitigation factors incorporated, the proposed Project would not generate GHG emissions levels that either directly or indirectly have significant impacts on the environment. Therefore, since the total Project CO\textsubscript{2}e emission estimates are well below the SMAQMD construction thresholds potential GHG emissions impacts are considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measures:** None Required

**Impact GHG-2**

Potential to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact GHG-2 Analysis

The proposed Project would be considered to have a significant impact if it conflicted with the emission reduction goals set forth by AB 32 and the goals and policies of the City of Sacramento 2035 General Plan. As mentioned in the regulatory framework of this section, CARB adopted the Scoping Plan, which outlines actions recommended to obtain the emission reduction goals contained in AB 32. These goals include reducing GHG emissions to 1999 levels by 2020 and to maintain and continue reductions in emissions of GHG beyond 2020. Additionally, the City of Sacramento 2035 General Plan includes a policy to reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020, and strive to reduce community emissions by 49 percent and 83 percent by 2035 and 2050, respectively.
The proposed Project construction activities are estimated to take approximately two years. The proposed Project construction activities are not anticipated to significantly add to the 2020 and beyond 1999 levels emissions goal nor would the proposed Project obstruct the SB 32 goals of reaching 40 percent below 1990 levels by 2030. Similarly, the proposed Project construction activities are not anticipated to significantly add to the 15 percent below 2005 baseline levels by 2020 from the City of Sacramento 2035 General Plan. The estimated GHG emissions levels are within the SMAQMD significance thresholds for construction activities; therefore, devised to reduce GHG emissions. Thus, potential impacts from the proposed Project to conflict with an applicable plan, policy, or regulation with the purpose of reducing GHG emissions would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measures:** None Required

**3.6.4 Mitigation Measures**

No mitigation required.
3.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the environmental and regulatory setting for hazards and hazardous materials. It also describes the existing conditions and potential impacts on hazards and hazardous materials that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.7.1 Regulatory Framework

3.7.1.1 Federal

Hazardous Material Management

Resources Conservation and Recovery Act

The Resources Conservation and Recovery Act (RCRA) set up the federal regulatory program for hazardous substances and gives the United States Environmental Protection Agency (USEPA) the authority to regulate the generation, transport, treatment, and disposal of hazardous substances in a “cradle to grave” system. Under the RCRA, USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. This regulatory system includes tracking all generators of hazardous waste.

1984 Hazardous and Solid Waste Amendment Act

RCRA was amended by the 1984 Hazardous and Solid Waste Amendment Act, which prohibited the use of certain techniques for the disposal of certain hazardous wastes (USEPA 2016a). The Emergency Planning and Community Right-to-Know Act of 1986 imposes safety requirements to protect local communities in the event of accidental release of hazardous substances. The requirements provide measures so that the risks from interaction with hazardous materials, such as handling, storage, and disposal, are mitigated or prevented. This law protects human health and the environment if the unintended release of hazardous materials was to occur (USEPA 2016b). USEPA has delegated fulfillment of many of the RCRA’s requirements to the California Department of Toxic Substances Control (DTSC).

Clean Air Act

Regulations under the Clean Air Act (CAA) (42 USC 7401 et seq. as amended) are designed to prevent accidental releases of hazardous materials. The regulations require facilities that store a threshold quantity or greater of listed regulated substances to develop a risk management plan, including hazard assessments and response programs to prevent accidental releases of listed chemicals.
Hazardous Materials Transportation

Hazardous Materials Transportation Act

The transport of hazardous materials is regulated by the United States Department of Transportation (Caltrans) under Hazardous Materials Transportation Act (HMTA). To accomplish this, the Federal Aviation Administration, Federal Motor Carrier Safety Administration, Federal Railway Administration, Pipeline and Hazardous Materials Safety Administration, and the U.S. Coast Guard have been given authority to enforce hazardous material transport regulations.

Worker Safety

Occupational Safety and Health Administration

The Occupational Safety and Health Act of 1970 created the Occupational Safety and Health Administration (OSHA), which is responsible for protecting the health of workers, such as during the handling of hazardous materials. OSHA has created regulation to set federal standards of workplace safety including exposure limits, mandatory workplace training, accident and injury reporting, and safety procedures. These regulations are recorded in the CFR Title 29 (GPO 2016).

3.7.1.2 State

Hazardous Material Management

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program. It is similar to, but more stringent than, the Federal RCRA program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling treatment, storage and disposal facilities; operation of facilities and staff training; and closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

California Environmental Protection Agency

The California EPA (CAL EPA) is responsible for creating and enforcing environmental regulations within California. Within CAL EPA is the DTSC, which was formed under the Hazardous Waste Control Act. The DTSC is responsible for regulating hazardous waste, remediating existing contamination, and identifying ways to reduce production of hazardous wastes. DTSC can delegate enforcement responsibilities to local jurisdictions.
Unified Program

The unified hazardous waste and hazardous materials management regulatory program (Unified Program) is a unified hazardous materials management program that was established by California’s Secretary for Environmental Protection following Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following programs:

- Hazardous Materials Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Above Ground Petroleum Storage Act Program
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

These six environmental programs are implemented at the local government level by Certified Unified Program Agencies (CUPAs). CUPAs provide a central permitting and regulatory agency for permits, reporting, and compliance enforcement. California Public Resources Code Section 21151.4 sets special requirements for environmental impact reports and negative declarations for projects that involve the construction or alteration of a facility within one-fourth of a mile of school that creates the following conditions:

- Might reasonably be anticipated to emit hazardous air emissions;
- Would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified in Section 25532(j) of the Health and Safety Code; or
- May pose a health or safety hazard to persons who would attend or would be employed at the school.

As part of the CEQA process, the lead agency preparing the EIR must consult with the appropriate school district regarding the potential impact of the project on the school and the school district must be notified about the project in writing at least 30 days before the proposed certification of the EIR or adoption of the mitigated negative declaration (Public Resources Code section 21151.4; 14 California Code of Regulations Section 15186(b)).

Cortese List Government Code Section 65962

Government Code Section 65962 was enacted in 1985 and was amended in 1992. It is used as a planning document to comply with the CEQA and requires information about locations of hazardous
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materials release sites. It states that through the combined efforts of the DTSC, the Department of Health Service, the State Water Resources Control Board (SWRCB) and local enforcement agencies a list of potential hazardous areas and sites will be compiled and remain up to date (at a minimum annually updated). The list is consolidated by the Secretary for Environmental Protection and is distributed to each city and county which sites on the list are located. The list can be found on the DTSC’s data management system known as EnviroStor, which includes information from the SWRCB GeoTracker database.

Worker Safety

Division of Occupational Safety and Health

The Division of Occupational Safety and Health (DOSH), also known as CalOSHA, is responsible for enforcing workplace safety regulations and requirements in California, including hazardous materials requirements recorded under CCR Title 8 (DIR 2016). These regulations include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about hazardous substance exposure (such as asbestos), and preparation of emergency action and fire prevention plans.

The DOSH also enforces hazard-communication program regulations that contain training and information requirements. Such requirements include procedures for identifying and labeling hazardous substances, communicating information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. Under the hazard-communication program, employers must make Material Safety Data Sheets available to employees and document employee information and training programs.

Emergency Response

California Emergency Services Act

The California Emergency Services Act provides the basic authority for conducting emergency operations following a proclamation of emergency by the governor and/or appropriate local authorities. Local government and district emergency plans are considered to be extensions of the California Emergency Plan, established in accordance with the Emergency Services Act.

The California Emergency Management Agency (CAL EMA) is the state agency responsible for establishing emergency response and spill notification plans related to hazardous materials accidents. CAL EMA regulates businesses by requiring specific businesses to prepare an inventory of hazardous materials (CCR Title 19). CAL EMA is also the lead state agency for emergency management and is responsible for coordinating the state-level response to emergencies and disasters.

Fire Protection

California state fire safety regulations apply to State Responsibility Areas (SRAs) during the time of year designated as having hazardous fire conditions. California Department of Forestry and Fire Protection (CAL FIRE) has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard in all SRAs. A SRA is defined as the part of the state where CAL
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FIRE is primarily responsible for providing basic wildland fire protection assistance. Areas under the jurisdiction of other fire protection services are considered to be Local Responsibility Areas or on Federal lands are considered Federal Responsibility Areas.

During the fire hazard season, these regulations include: (a) restrict the use of equipment that may produce a spark, flame, or fire; (b) require the use of spark arrestors on any equipment that has an internal combustion engine; (c) specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and (d) specify fire suppression equipment that must be provided onsite for various types of work in fire-prone areas. CAL FIRE has primary responsibility for fire protection within SRAs.

3.7.1.3 Local

Sacramento County Environmental Management Department

The Sacramento County Environmental Management Department (SCEMD) is the CUPA for local implementation of the California Accidental Release Prevention (CALARP) and several other hazardous materials and hazardous waste programs. SCEMD is responsible for regulating hazardous materials business plans and chemical inventory, hazardous materials storage, hazardous materials management plans, and risk management plans. The hazardous materials business plan program requires businesses in Sacramento County to prepare business emergency response plans if hazardous materials storage equals or exceeds 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of gas. The goal of SCEMD is to protect human health and the environment by ensuring that hazardous materials and hazardous waste are properly managed.

The SCEMD distributes the information in the hazardous materials business plans and business emergency response plans to emergency response agencies, such as the Fire Department/Hazardous Materials Response Teams. In accordance with Health and Safety Code Chapter 6.95, Section 25500, the SCEMD prepared the Area Plan for Emergency Response to Hazardous Materials Incidents in Sacramento County (2012). The plan describes the responsibilities of local, state, and federal agencies during hazardous materials incidents.

The SCEMD is certified by California’s Department of Resource Recycling and Recovery (CalRecycle) for Sacramento County. SCEMD permits and inspects solid waste facilities and enforces state laws pertaining to the storage, processing, and disposal of solid waste. The SCEMD also issues permits for the development and abandonment of groundwater wells, and with respect to the former 28th Street Landfill, the removal and relocation of the soil gas probes and groundwater monitoring wells.

Sacramento County Multi-Hazard Emergency Plan (2011)

The Sacramento County Multi-Hazard Emergency Plan (2011) plan is designed to be a comprehensive disaster preparedness program. The plan identifies goals, objectives, and measures for hazard mitigation and risk reduction for disasters such as earthquakes, flooding, dam or levee failure, hazardous material spills, epidemics, fires, extreme weather, major transportation accidents, and terrorism.
Applicable goals and policies of the City of Sacramento 2035 General Plan pertaining to Public Health and Safety (PHS) are presented below.

**Goal PHS 2.1 Fire Protection and Emergency Medical Services.** Provide coordinated fire protection and emergency medical services that support the needs of Sacramento residents and businesses and maintains a safe and healthy community.

**Goal PHS 2.2 Fire Prevention Programs and Suppression.** The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

**Goal PHS 3.1 Reduce Exposure to Hazardous Materials and Waste.** Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

**Policy PHS 3.1.1 Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.

**Policy PHS 3.1.2 Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.

**Policy PHS 3.1.4 Transportation Routes.** The City shall restrict transportation of hazardous materials within Sacramento to designated routes.

**Policy PHS 3.1.6 Compatibility with Hazardous Materials Facilities.** The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the County’s Hazardous Waste Management Plan, and that land users near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.

**Goal PHS 4.1 Natural and Human-made Disasters.** Promote public safety through planning, preparedness, and emergency response to natural and human-made disasters.

**City of Sacramento Emergency Operations Plan**

The purpose of The City of Sacramento Emergency Operations Plan (EOP) is to provide safeguards to minimize loss of life and property damage during natural disasters and emergencies of national defense. The City of Sacramento EOP establishes an Emergency Management Organization and assigns functions and tasks in accordance with California’s Standardized Emergency Management System (SEMS). The EOP provides guidance as to disaster response from the initial onset through the cost
recovery process. It includes policies, responsibilities, and procedures necessary to protect human health and safety, public and private property, and the environment from the effects of natural and anthropogenic disasters and emergencies. The EOP outlines the specific emergency-related responsibilities of City agencies. For example, the City of Sacramento Police Department is responsible for implementing emergency evacuations, including traffic control plans, while the City of Sacramento Fire Department is the first responder for hazardous materials incidents (City of Sacramento 2005a).

City of Sacramento Evacuation Plan

The purpose of the City of Sacramento Evacuation Plan (2012) is to provide evacuation-specific strategy and information to support and guide the City’s Emergency Managers, Emergency Operations Center staff, and other governmental and non-governmental agencies that would be involved with an evacuation event in the City of Sacramento. Therefore, the Evacuation Plan serves as an amendment to the EOP. Flooding is considered the primary threat that would invoke an evacuation in Sacramento. Therefore, much of the Evacuation Plan is dedicated to procedures to be followed in event of a flood emergency. However, the associated strategy and plan details apply to other hazards as well. The City of Sacramento Police Department has divided the City into six districts with each district further divided into three or four police patrol beat areas. The Evacuation Plan provides evacuation routes and locations of sirens and shelters within each police patrol beat area. The City of Sacramento Fire Department maintains updated records of the emergency response and evacuation routes for the City (County of Sacramento 2012) (City of Sacramento 2008).

Hazardous Materials Response

The City’s Hazardous Materials Program (HazMat) provides capability for response to hazardous material emergencies (City of Sacramento 2005b). HazMat contains a minimum of 108 firefighters and trained to the Hazardous Materials Response level and includes three Hazardous Materials Response Teams (HMRTs) and one Decontamination Team. Under contractual agreement, HazMat provides 24-hour first response to hazardous materials incidents within the City of Sacramento.

Sacramento Area Council of Governments

In December of 2013, Sacramento Area Council of Governments (SACOG) adopted the Airport Land Use Compatibility Plan (ALUCP) for the Sacramento International Airport. This plan ensures that land uses in and around the Sacramento International Airport are compatible with airport use. The boundaries for this plan, or the Airport Influence Area (AIA), range from the cities of Woodland and Davies to the west, West Sacramento to the south, the Sutter-Placer County line in the east, and the town of Nicolaus to the north (SACOG 2013). Central and Eastern Sacramento is not included in the AIA.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is responsible for the management and enforcement of a variety of air quality rules including asbestos within the City of Sacramento. Rule 902 of the SMAQMD outlines specific procedures to follow if asbestos is likely to occur within a Project area. These procedures include, but are not limited to, requirements for surveys to be
conducted prior to construction, proper worker safety when handling asbestos containing materials, and proper disposal of any of these materials (SMAQMD 2015).

### 3.7.2 Environmental Setting

The proposed Project area is located in a densely-populated area with residential properties, park visitors, and a daycare facility near the site.

### 3.7.2.1 Definition of Terms

#### Hazardous Materials and Wastes

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the CFR as “a substance or material that...is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

Hazardous material means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Hazardous wastes are defined in California Health and Safety Code Section 25141(b) as wastes that:

Because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [, or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Section 25532(j) of the Health and Safety Code defines "regulated substances accident risk" to mean a potential for the accidental release of a regulated substance into the environment that could produce a significant likelihood that persons exposed may suffer acute health effects resulting in significant injury or death.

Section (j) defines "regulated substance" to mean any substance that is either of the following (20 CFR Article 2 § 25532):

1. A regulated substance listed in Section 68.130 of Title 40 of the Code of Federal Regulations pursuant to paragraph (3) of subsection (r) of Section 112 of the Clean Air Act (42 U.S.C. Sec. 7412(r)(3)).
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(2) (A) An extremely hazardous substance listed in Appendix A of Part 355 (commencing with Section 355.10) of Subchapter J of Chapter I of Title 40 of the Code of Federal Regulations that is any of the following:

i. A gas at standard temperature and pressure.

ii. A liquid with a vapor pressure at standard temperature and pressure equal to or greater than 10 millimeters mercury.

iii. A solid that is one of the following:

   I. In solution or in molten form.

   II. In powder form with a particle size less than 100 microns.

   III. Reactive with a National Fire Protection Association rating of 2, 3, or 4.

iv. A substance that the office determines may pose a regulated substances accident risk pursuant to subclause (II) of clause (i) of subparagraph (B) or pursuant to Section 25543.3.

Acute Hazardous Wastes

Acute hazardous wastes have been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness (CFR 40 261.11).

Asbestos

Naturally occurring asbestos is found in serpentine soils in the foothills of California and is considered a hazardous material due to exposure related public health concerns (Caltrans 2006). The Naturally Occurring Asbestos Hazard Map was reviewed to determine if the proposed Project would involve construction in areas of relative likelihood for the presence of natural occurring asbestos (California Geological Survey 2011). The majority of the Sacramento area is not a known place for the occurrence of natural occurring asbestos.

In addition to naturally occurring asbestos, many building materials, including pipelines have the potential to contain asbestos and other hazardous materials which could cause damage to the environmental and to people if disturbed. If material containing asbestos are disturbed, tiny fibers can become airborne which could cause respiratory damage leading to lung disease or other pulmonary complications. According to historic drawings, there is a possibility that the proposed Project site could contain irrigation pipelines that have asbestos which could be disturbed during construction activities.
Hazardous Air Pollutants

The USEPA defines hazardous emissions, also known as Hazardous Air Pollutants (HAP), as those pollutants that are known or suspected to cause cancer or other serious health effects (USEPA 2017). These pollutants can come from sources such as gasoline, motor oils, asbestos, and paint strippers and can be inhaled or ingested. Fuels such as diesel and gasoline would be required for the operation of construction equipment and are considered Class three, flammable liquid, hazardous materials which can lead to fires or explosions if handled incorrectly. Additionally, oils and lubricants would also be needed for operation of equipment and the control facilities and are also considered Class three hazardous materials.

3.7.2.2 Schools

The proposed Project site is located in the area served by Sacramento County Unified School District. Tiny Tots Daycare is located in the rose garden building adjacent to the Project site within McKinley Park. Sutter Middle School, is located approximately 0.10- miles from the proposed Project and Lincoln Law School is located approximately 0.25-miles from the proposed Project site. No other schools are located within 0.25 miles of the Project site.

3.7.2.3 Cortese List Government Code Section 65962

As discussed in the regulatory setting above, the Cortese list, which is compiled pursuant to Government Code Section 65962, is used to comply with CEQA requirements and provides a list about the known locations of hazardous material release sites. The EnviroStor database, which is managed by the DTSC, is used to determine the proximity of a project to the nearest hazardous materials site. The proposed Project site is not listed on the Cortese list and would not be eligible for listing based on the criteria outlined in Government Code Section 65962. The nearest DTSC hazardous site to the proposed Project site is the Future Sacred Heart School which is located approximately 0.36-miles southeast of the proposed Project site. This site is designated as a voluntary cleanup site, with no further action needed (EnviroStor 2017). The nearest SWRCB hazardous site to the proposed Project is the Gasco Station #758 which is located approximately 0.24-miles to the northwest of the proposed Project site. This site is designated as a leaking underground storage tank (LUST) site with a status of complete (SWRCB 2015).

3.7.2.4 Emergency Response and Emergency Evacuation Plans

The proposed Project site is within the City’s EOP. The Sacramento Fire Emergency Medical Services (EMS) Division is located approximately 0.4-miles from the proposed Project site and the Sacramento County Sheriff’s Department is located approximately 3.8-miles away from the proposed Project site (District 6). Both the Fire Division and the Sheriff’s office operate 24 hours a day, seven days a week. Additionally, the 2016 median officer response time for emergency situations (priority two) in 2016 was approximately 10 seconds and one minute and seven seconds for lower priority situations (priority six) (City of Sacramento Police Department 2016).
3.7.2.5 **Airports and Airstrips**

There are no airport plans within the Project area. As discussed in the regulatory setting above, the ALUCP for the Sacramento International Airport is outside of the Central Sacramento area which is where the proposed Project would be located. The nearest public airport to the Project site is the Sacramento Executive Airport which is located approximately four miles south of the Project site. The nearest private airstrip is at the UC Davis Medical Center Life Flight base, which consists of a heliport and is located approximately 1.5-miles southeast of the Project site.

3.7.2.6 **Fire Hazards**

CAL FIRE maintains fire hazard severity zone maps for local and State responsibility areas. Fire hazard is a way to measure physical fire behavior so that people can predict the damage a fire is likely to cause. The proposed Project is located in a local responsibility area maintained by the City. The general background risk for the project and its vicinity is expected to be low, due to the surrounding area being urban and they type of vegetation (fuel) in the area.

3.7.3 **Environmental Impacts**

This section analyzes the proposed Project's potential to result in significant impacts to hazards and hazardous materials. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.7.3.1 **Thresholds of Significance**

Using a desktop analysis and the CEQA Guidelines’ Appendix G Environmental Checklist for guidance, the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.7.3.2 to determine whether potential hazards or hazardous materials impacts from the proposed Project on the baseline setting (Sections 3.7.1 and 3.7.2) would be significant. A potential impact would be significant if the proposed Project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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;
- 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? Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;

- 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;

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- 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.

3.7.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact HAZ-1</th>
<th>Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</th>
</tr>
</thead>
</table>

**Impact HAZ-1 Analysis**

Temporary construction activities associated with the proposed Project would involve the transport and use of gasoline, diesel fuel, hydraulic fuel, solvents, and oils typically associated with operation of construction equipment and vehicles. These chemicals would be used and stored on the proposed Project site in McKinley Park during construction, as well as transported along public roadways. Federal, state, and local laws governing the handling, storage, and transport of these and other hazardous materials and spill clean ups are discussed in the Regulatory Setting of this section and would be required for the storage and transport of hazardous material for the proposed Project. These regulations are established to prevent the improper use of materials and to reduce the risk of exposure to the public. The Standard Specifications required by the City of Sacramento Public Works Department regarding construction include the development of a central hazardous material storage and delivery area within a construction site in order to prevent runoff and to ensure hazards and/or nonhazardous materials are not spilled into the environment. Chemicals present on site or used for the proposed Project would be handled by the contractor in accordance with these regulations and DOSH requirements ensuring the potential for these hazards to create a hazard to the public or the environment is not significant. Therefore, the potential for impacts related to hazardous materials transport, use, or disposal would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required
Impact HAZ-2

Potential to 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.

Impact HAZ-2 Analysis

The potential for release of hazardous materials into the environment could result from discovery of hazardous materials in the soils excavated during construction or from spills related to construction equipment. Spills associated with lubricants or other materials used during operation of the pump station and control facilities would be contained within structure, would follow standard procedures for cleanup and would not be in amounts substantial enough to result in significant hazard to the public.

The use of heavy construction equipment requires the use of small amounts of hazardous materials such as oils, fuels, and other potentially flammable substances that have the potential to be released into the environment if not handled properly. The amount of these materials needed for on-site equipment maintenance would not be enough to cause a significant hazard to the public if released since the quantity of these hazardous materials on-site at any one given time would only amount to a refueling truck and the construction equipment. However, MM HYD-1, Spill Prevention and Contingency Plan, would be implemented to require the contractor to prepare an accidental-spill prevention and response plan which would include BMPs to control for the accidental release of hazardous materials into the environment ensuring spills are appropriately cleaned up and would not result in a release of hazardous materials into the environment.

Additionally, according to historic documentation of McKinley Park, there is a potential that asbestos containing irrigation pipelines could be present within the Project footprint. These pipelines would likely have to be removed during construction activities and replaced with new irrigation pipeline once construction is complete. Because of the potential for asbestos to present, the appropriate rules and procedures would have to be followed in order to properly document, remove, and transport these materials. MM HAZ-1 would be implemented to properly handle these pipelines if they are found to contain any asbestos. Through this mitigation measure, the appropriate steps would be taken in order prevent the exposure of hazardous materials to both the construction workers and the public in the Project area, thus reducing this potential impact to a less than significant level.

Therefore, because the quantity of hazardous materials on-site is limited, appropriate prevention and management practices would be in place as required by local and regional regulatory agencies, and MM GEO-1 and MM HAZ-1 would be implemented, the potential for impacts from construction related accidental spills of hazardous materials would be considered less than significant with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM GEO-1, MM HAZ-1, and MM HYD-1
Impact HAZ-3 Analysis

The construction phase of the proposed Project has the potential to result in emissions of toxic air contaminants/HAPs in the form of diesel particulate matter emissions from the operation of diesel-fueled internal combustion engines. Since there are three schools located within one quarter mile of the proposed Project site there would be some emissions of diesel particulate matter within one quarter mile of schools. MM AIR-1, Prepare Emission and Dust Control Plan, would reduce any potential emissions to a less than significant level because implementation of BMPs and specific instructions for handling of construction equipment such as limiting idle times to a maximum of five minutes along with frequent maintenance of the equipment which ultimately keeps the equipment running and operating like it should, thus limiting the amount of emissions. Other emission reducing BMPs in MM AIR-1 may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after treatment products, and/or other options as they become available. Additionally, the construction activities would be temporary and would be spread out over time which would further reduce any potential impact.

Hazardous materials used during construction would be typical of common construction activities and are discussed in Impacts HAZ-1 and HAZ-2. They would be handled by the contractor in accordance with applicable federal, state, and local regulation for hazardous substances. Additionally, the amount of these materials needed for on-site equipment maintenance would not be enough to cause a significant hazard to the public, or any nearby schools, if released since the quantity of these hazardous materials on-site at any one given time would only amount to a refueling truck and the construction equipment. If the irrigation pipelines in the Project area are found to contain asbestos, MM HAZ-1 would be implemented. This mitigation measure would include procedures for the proper handling and disposal of these materials in order to prevent the exposure of nearby schools to hazardous materials, reducing this potential impact to a less than significant level.

Operation of the proposed Project would not involve the use of any hazardous materials or have the potential to emit hazardous emissions and thus, would not impact the three schools within one-quarter mile of the Project site. Therefore, the potential for the proposed Project to emit hazardous emissions within one-quarter miles of a school during both construction and operation would be less than significant with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM AIR-1, MM HAZ-1
Impact HAZ-4  Potential to 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.

Impact HAZ-4 Analysis

The proposed Project is not located on the Cortese list database as a potentially hazardous site. Additionally, the hazardous materials that would be used during construction would include oils, fuels, and other potentially flammable substances which would be used in small amounts and for a temporary period of time during construction. Therefore, the proposed Project does not have the potential to create a significant hazard to the public as a result of the listing or use of substantial amounts of hazardous materials. As such, no impact would occur and no mitigation measures would be required.

Level of Significance: No Impact

Mitigation Measure: None Required

Impact HAZ-5  Potential to be 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?

Impact HAZ-5 Analysis

There are no public airports or adopted airport land use plans within two miles of the proposed Project site. Therefore, there would be no impact associated with a safety hazard from nearby airports and no mitigation measures would be required.

Level of Significance: No Impact

Mitigation Measure: None Required

Impact HAZ-6  Potential to be within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

Impact HAZ-6 Analysis

The UC Davis Medical Center Life Flight base heliport is located approximately 1.5-miles southeast of the Project site. Although this private heliport is located within two miles of the proposed Project site, the proposed Project would not have the potential to result in a safety hazard because the construction work would be temporary and once constructed, the proposed Project would be located underground except for the associated electrical control facility and restroom. Additionally, the heliport located in this area is only used for emergencies which does not include consistent, daily uses, further limiting any potential impacts. Therefore, the proposed Project would have a less than significant impact on safety hazards associated with working in the vicinity of a private airstrip.
MCKINLEY WATER VAULT PROJECT

Hazards and Hazardous Materials
April 2018

Level of Significance: Less than Significant

Mitigation Measure: None Required

| Impact HAZ-7 | Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. |

Impact HAZ-7 Analysis

The proposed Project includes two access points: the existing maintenance road off of 33rd Street near the northeast portion of the Park and the existing maintenance road and walking path along McKinley Boulevard at the north end of the Park. These access points would utilize Interstate Business 80 to travel to and from the Downtown Railyard site which is just a short distance from the proposed Project site. Additionally, improvements to the park would include replacement of the jogging path and replacement of paving in the truck routes within McKinley Park that may be damaged from construction activities.

The City’s 2012 EOP outlines procedures to follow in the event of an emergency, such as a flood or fire that may affect the City of Sacramento. The proposed Project site is located within the 6D Police Beat and the recommended emergency route in this location is along Alhambra Boulevard for a north-south evacuation (City of Sacramento Evacuation Plan 2008). Since the propose Project site is located near Alhambra Boulevard, in the event of an emergency, any vehicles and workers on site would exit onto Alhambra Boulevard, and proceed to the evacuation site, which would be dependent of the direction and location of the emergency.

The proposed Project is not anticipated to have any impact to the existing emergency evacuation plan. As discussed further in Section 3.13, a traffic control plan would be incorporated into the project through MM TRANS-1 in order to limit any potential impacts from construction equipment entering and existing the surrounding roadways. Additionally, this mitigation measure includes: a discussion of expected construction schedules and locations, traffic control measures, and coordination with emergency response agencies to ensure that emergency access remains possible at all times. Through MM TRANS-1, the proposed Project would not interfere with the City’s EOP plan and would therefore have a less than significant impact with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM TRANS-1

| Impact HAZ-8 | Potential to 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. |

Impact HAZ-8 Analysis

The proposed Project is located in McKinley Park which is not designated as a wildland and the City of Sacramento is not considered to have a high wildland fire danger (City of Sacramento Fire Department 2016). Additionally, once constructed, the proposed Project would be located underground except for the
associated electrical control facility and restroom. This would limit the exposure of the Project and people to risks from wildfires. Therefore, the proposed Project would have a less than significant impact related to wildland fires.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

3.7.4 Mitigation Measures

See Mitigation Measure GEO-1, Mitigation Measure HYD-1, Mitigation Measure-AIR 1, and Mitigation Measure TRANS-1.

**Mitigation Measure HAZ-1: Proper Handling and Disposal of Asbestos Containing Materials**

If asbestos containing materials are found within the Project area the City shall require that the selected contractor follow the applicable procedures outlined in the Sacramento Metropolitan Air Quality Management District Rule 902 relating to the proper handling and disposal of asbestos. Additionally, the City shall require the selected contractor follow the provisions in the California Code of Regulations, Title 8, which is enforced by the Division of Occupational Safety and Health, for worker safety when handling asbestos.
3.8 HYDROLOGY AND WATER QUALITY

This section describes the environmental and regulatory setting for hydrology and water quality. It also describes impacts on hydrology and water quality that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.8.1 Regulatory Framework

3.8.1.1 Federal

Federal Clean Water Act

The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). Section 401 of the CWA regulates surface water quality and a Water Quality Certification is required for federal actions (including construction activities) that may entail impacts to surface water. In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCB).

NPDES Construction Permit

The federal CWA prohibits certain discharges of stormwater containing pollutants except in compliance with a NPDES permit. The federal statutes and regulations require discharges to surface waters comprised of storm water associated with construction activity, including demolition, clearing, grading, and excavation, and other land disturbance activities (except operations that result in disturbance of less than one acre of total land area and/or discharges to municipalities with combined stormwater and sewer systems) to obtain coverage under an NPDES permit. The NPDES permit must require implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is responsible for managing the National Flood Insurance Program (NFIP), which makes federally-backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage.

The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level known as base flood elevation. To facilitate identifying areas with flood potential, FEMA has developed Flood Insurance Rate Maps (FIRMs) that can be used for
planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

### 3.8.1.2 State

**Porter Cologne Water Quality Control Act**

The State of California established the State Water Resources Control Board (SWRCB), which oversees the nine RWQCBs, through the Porter-Cologne Water Quality Control Act (Porter-Cologne). Through the enforcement of the Porter Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, the RWQCB, is authorized to prescribe Waste Discharge Requirements (WDRs) for the discharge of waste, which may impact the waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by Porter-Cologne to protect water quality. The SWRCB issues both General Construction Permits and individual permits under the auspices of the federal NPDES program. Per the SWRCB General Construction Permit, construction activity that discharges to Combined Sewer Systems is an activity not covered under the general permit and therefore the permit does not apply.

### 3.8.1.3 Local

**The Sacramento Area Flood Control Agency**

The Sacramento Area Flood Control Agency (SAFCA) was formed in 1989 by local agencies anxious to address the deficiencies in Sacramento’s flood control system identified by the United States Army Corp of Engineers (USACE) following the flood of 1986. Through a joint exercise of powers agreement, the City of Sacramento, County of Sacramento, the Sacramento County Water Agency, Sutter County, the Sutter County Water Agency, the American River Flood Control District, and Reclamation District 1000 (RD 1000) pooled their common flood-control authorities, established a management structure, and identified a program for improving Sacramento’s flood control system. This program has three elements:

1. Ensure the structural integrity of the existing levee system;

2. Provide at least a 100-year level of flood protection as quickly as possible to the areas within the FEMA 100-year floodplain by, among other actions, increasing the space available for flood control at Folsom Dam and Reservoir (Folsom); and

3. Work toward achieving at least a 200-year level of flood protection for the Sacramento area.

SAFCA finances the local share of the cost to improve Sacramento’s flood control system by creating assessment districts and levying annual assessments on properties which benefit from the improvements. These assessments are billed on Sacramento County’s and Sutter County’s annual real property tax bill.

SAFCA has carried out its flood risk management program on a step-by-step basis. It has succeeded in moving flood zone properties in Natomas and North Sacramento from a high-risk status (less than 100-year protection) to a moderate-risk status (greater than 100-year but less than 200-year protection) by
raising and strengthening levees around the Natomas basin and along lower Dry and Arcade creeks. When this work is completed, these properties will have greater than a 200-year level of protection and a relatively low risk of flooding. Outside the North Area, steps have been taken to ensure the integrity of the levee system along the Sacramento and American rivers and to secure additional flood storage space at Folsom Reservoir on an interim basis.

The American River Flood Control District

The American River Flood Control District (ARFCD) is the part of SAFCA that provides flood protection for the Project site and surrounding neighborhoods. Formed by an act of the State Legislature in 1927, its mission is to protect the citizenry by maintaining the 40 miles of levees along the American River and portions of Steelhead, Arcade, Dry, and Magpie creeks. The ARFCD’s year-round maintenance activities are designed to prevent degradation of the levees’ structural stability and to keep the surface of the levees accessible and clearly visible so problems can be detected, and flood emergency equipment can be moved in when needed. In addition to routine operation and maintenance activities, the ARFCD implements projects along the levee to improve accessibility. For example, in 2008, the ARFCD began working with numerous landowners to remove abandoned encroachments in River Park (such as deteriorating retaining walls, debris, and mounds of dirt), which resulted in a clean levee slope free of obstructions that will no longer compromise levee safety.

City of Sacramento 2035 General Plan

The following City of Sacramento 2035 General Plan goals and policies are applicable to hydrology and water quality.

*Environmental Constraints: Flooding Hazards*

**Goal EC 2.1 Flood Protection.** Protect life and property from flooding.

**Policy EC 2.1.2 Regional Flood Management Planning Efforts.** The City shall participate in the California Department of Water Resources (DWR) Regional Flood Management Planning effort for the Lower Sacramento/Delta North region.

**Policy EC 2.1.4 200-year Flood Protection.** The City shall work with local, regional, State, and Federal agencies to achieve by 2025 at least 200-year flood protection for all areas of the City.

**Policy EC 2.1.12 New Development Design.** The City shall require new development located within a special (100-year) flood hazard area to be designed to minimize the risk of damage in the event of a flood.

*Environmental Resources: Water Resources*

**Goal ER 1.1 Water Quality Protection.** Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American rivers, and their shorelines.
**Policy ER 1.1.3 Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through stormwater protection measures consistent with the City’s NPDES Permit.

**Policy ER 1.1.4 New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, BMPs and Low Impact Development (LID), and hydromodification strategies consistent with the City’s NPDES Permit.

**Policy ER 1.1.5 Limit Stormwater Peak Flows.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

**Policy ER 1.1.7 Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City’s erosion and sediment control ordinance and stormwater management and discharge control ordinance.

**City of Sacramento Stormwater Management and Control Code**

The City Stormwater Management and Control Code (Chapter 13.16 of the City Code) is intended to control non-stormwater discharges to the stormwater conveyance system; eliminate discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater; and reduce pollutants in urban stormwater discharges to the maximum extent practicable. Non-stormwater discharges are prohibited except where the discharge is regulated under a NPDES permit (See the descriptions of the NPDES in the discussions of federal and state water quality regulations above). Discharges to the stormwater conveyance system of pumped groundwater not subject to a NPDES permit may be permitted upon written approval from the City and in compliance with the City’s conditions of approval.

**City of Sacramento Grading, Erosion, and Sediment Control Ordinance**

The City Grading, Erosion, and Sediment Control Ordinance (Title 15, Chapter 15.88 of the City Code) sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. With limited exceptions, grading approval must be received from the City’s Department of Utilities (DOU) before construction. All project applicants, regardless of project location, are required to prepare and submit separate erosion and sediment control plans applicable to the construction and post-construction periods. The ordinance also specifies other requirements, such as written approval from the City for grading work within the right of way (ROW) of a public road or street, or within a public easement.

**City of Sacramento SQIP**

The City of Sacramento Stormwater Quality Improvement Program (SQIP) provides a comprehensive plan to direct the Sacramento City Stormwater Management Program and its priorities and activities. Included in the City of Sacramento SQIP is information on the Sacramento City Stormwater Management
Program's history and accomplishments as well as a description of specific activities. The City of Sacramento Stormwater Management Program is designed to reduce stormwater pollution to the maximum extent practicable and eliminate prohibited non-stormwater discharges in accordance with federal and state laws and regulations.

The Construction Element in the SQIP was designed to reduce the discharge of stormwater pollutants to the maximum extent practicable by requiring construction sites to reduce sediment in site runoff and reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. The New Development Element in the SQIP was designed to protect local creeks and rivers by reducing the discharge of stormwater pollutants that could result from new developments to the maximum extent practicable and by mitigating increased flows that could cause erosion and degrade habitat.

City of Sacramento Floodplain Management Ordinance

This Floodplain Management Ordinance is designed to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Ordinance regulates development which is or might be dangerous to health, safety, and property by requiring at the time of initial development, or substantial improvement, methods of protection against flood damage in areas vulnerable to flooding in order to minimize flood damage. The Ordinance regulates the following developmental impacts: filling, grading, or erosion, alteration of natural flood plains, stream channels or water courses, the imposition of barriers which increase flood hazards, or any other impacts that aggravate or cause flood hazards.

Resolution 93-164

Resolution 93-164, with regard to storm drainage, is intended to prevent street flooding during 10-year return storms and to prevent flooding of structures during 100-year return storms at complete buildout in each drainage basin.

City of Sacramento NPDES Permit

The City of Sacramento NPDES permit (Order No. R5-2016-0040, NPDES No. CAS0085324) requires implementation of programs that establish priorities based on addressing urban pollutants of concern, to reduce the level of pollutants in stormwater discharges from municipal separate storm sewer systems and requires that any change in water quality will not unreasonably affect the present and anticipated beneficial use of receiving waters and will not result in water quality less than that prescribed in SWRCB policies. The SQIP, described earlier, provides a comprehensive plan to direct the City's Stormwater Management Program priorities and activities, including program management, target pollutant reduction strategy, monitoring program, program element implementation (i.e., industrial, municipal, construction, and public education and outreach elements), and program evaluation.
Central Valley Regional Water Quality Control Board Order No. R5-2015-0045

On April 17, 2015, the Central Valley Regional Water Quality Control Board (CVRWQCB) adopted the Waste Discharge Requirements for the City of Sacramento Combined Wastewater Collection and Treatment System (Order No. R5-2015-0045, NPDES No. CA0079111) which describe discharge prohibitions to the Sacramento River unless certain specified conditions have been met or authorizations granted; effluent limitations and discharge specifications for total suspended solids, settleable solids, and chlorine; receiving water limitations to the Sacramento River, monitoring and reporting requirements; and other standard and special provisions.

General Order for Dewatering and Other Low-Threat Discharges to Surface Waters

The CVRWQCB has adopted a general NPDES permit for short-term discharges of small volumes of clean or relatively pollutant-free wastewater from certain construction-related activities that pose little or no threat to water quality. Permit conditions for the discharge of these types of wastewaters to surface water are specified in "General Order for Dewatering and Other Low-Threat Discharges to Surface Waters" (Order No. R5-2013-0074, NPDES Permit No. CAG995001). Discharges may be covered by the permit provided they are either (1) four months or less in duration or (2) the average dry weather discharge does not exceed 0.25 mgd. Construction dewatering, well development water, pump/well testing, and miscellaneous dewatering/low-threat discharges are among the types of discharges that may be covered by the permit. The general permit also specifies standards for testing, monitoring, and reporting, receiving water limitations, and discharge prohibitions.

3.8.2 Environmental Setting

3.8.2.1 Regional Setting

The proposed project is located within the Sacramento River Basin where the Sacramento and American Rivers meet. This Basin consists of 27,000 square miles that spans from the Sierra Nevada mountain range in the east to the Coastal range in the west. This Basin is the largest river basin in California which captures, on average, 22 million acre-feet of annual precipitation (Sacramento 2009). Additionally, the Sacramento River is regulated largely by dams which generate power, reduces flooding during storm events, increases the water supply, adds recreation activities, improves fisheries, and benefits wildlife management in the area.

The American River is the closest river to the proposed Project site. The American River covers approximately 1,900 square miles and serves as a tributary to the Sacramento River. This river spans from the Sierra Nevada Mountains to the City of Sacramento. The Folsom Dam, which is owned and operated by the U.S. Bureau of Reclamation, is the main regulating agency of the American River and directly affects the flows and management of the River in the Sacramento City Limits (Sacramento 2009).

The City of Sacramento also includes the North and South American Groundwater Subbasins which are a part of the Sacramento Valley Groundwater Basin. Various aquifer systems underlie the region including Modesto, Riverbank, Turlock Lake, Fair Oaks, Laguna, and Mehrten Formations. The groundwater levels
within the region are considered to be stable with ranges from 20-feet amsl to 35 below mean sea level (bmsl) and the groundwater quality is considered to be average.

3.8.2.2 Local Setting

The proposed Project lies primarily within the American River Watershed. This watershed is considered a multi-use watershed that encompasses mining, hydroelectric generation, timber cultivation, and recreation activities (The American River 2017). The proposed Project site of McKinley Park is located approximately 1.0-mile south of the American River and approximately 2.5-miles east of the Sacramento River.

Flooding

Flooding is a common hazard in the winter months of this area from the Sacramento and American Rivers, localized creeks, and high intensity storms. In the early 1990’s several high-intensity storms hit the Sacramento area which caused excessive flooding in the area. FEMA oversees the delineation of flood zones and the provision of Federal disaster assistance. FEMA manages the NFIP and publishes the FIRMs, which show the expected frequency and severity of flooding by area. Flood Plains are divided into flood hazard zones designated by the potential for an area to flood. Zone X may include those areas that are located within the 100-year flood plain, but are adequately protected by levee systems, while Zone A, AE, and AO are designated as areas inundated by a 100-year storm event.

The proposed Project area is shown on FEMA FIRMs for Sacramento County as Community Number 06067C and Map Panel Number 0180J and is outside of the 100-year flood hazard zone, but is within Zone X which is defined as areas that are protected from the 100-year flows by levees (FEMA 2015). The levee that controls the region is the Folsom Dam which is approximately 20 miles east of the proposed Project site on the American River. The Yolo Bypass area is also used as an overflow area from the Sacramento River.

SAFCA was established in 1989 and manages the regions vulnerability to severe storm events and flooding hazards. Through this agency, the implementation of the Capital Improvement Program was initiated which includes improvements to stormwater drainage facilities within the city. These improvements would benefit local flooding hazards and help plan for a 100-year storm event.

3.8.2.3 Surface Water Quality

According to the CVRWQCB, the Sacramento and American rivers are known to have numerous beneficial uses to the Sacramento area as well as downstream regions. Benefits include, but are not limited to, wildlife habitat, spawning grounds, freshwater habitat, and industrial uses. The water quality in these rivers is primarily affected by soil erosion, discharges from industrial and wastewater plants, stormwater runoff, agriculture, recreation activities, mining, timber harvesting, and flora and fauna (Sacramento 2009). The City of Sacramento 2035 General Plan EIR states that,

“The reaches of the Sacramento and American rivers that flow through the Sacramento urban area are considered impaired for certain fish consumption and aquatic habitat and are listed on the EPA approved 2006 section 303(d) list of water quality limited segments”. (Sacramento 2014).
Both the Sacramento and American Rivers are considered primary sources for drinking water for the Sacramento area. In fact, 85 percent of Sacramento’s drinking water comes from the Sacramento and American Rivers with one intake structure located on each River (City of Sacramento 2017).

3.8.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to hydrology and water quality. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.8.3.1 Methodology of Analysis

Using data published by the CVRWQCB, the Department of Water Resources (DWR), and agencies releasing or diverting flow from the City’s Combined Sewer System in conjunction with CEQA Guidelines’ Appendix G Environmental Checklist for guidance, the following thresholds of significance were established and were analyzed and evaluated to determine whether impacts to hydrology and water quality would be significant. Specifically, the analysis considered that there could be a potentially significant adverse effect if the proposed Project would:

- Violate any water quality standards or waste discharge requirements;
- 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);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- 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;
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- 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;
• Cause inundation by seiche, tsunami, or mudflow.

### 3.8.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact HYD-1</th>
<th>Potential to violate any water quality standards or waste discharge requirements.</th>
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**Impact HYD-1 Analysis**

Construction activities associated with the proposed Project would create the potential for soil erosion and possibly increase sedimentation which could affect water quality through discharging polluted runoff. Construction activities could also increase the potential for accidental release of pollutants that could affect not only surface waters, but the beneficial uses associated with them. Such pollutants include oil and gas from machinery, chemicals associated with construction (e.g. paints, lubricants, and greases, and waste material). Many construction-related pollutants have the potential to degrade water quality by increasing constituent levels in surface waters and could lead to a violation of water quality standards. MM HYD-1, which includes the development of a Spill Prevention and Contingency Plan, would be implemented in order to reduce the potential for release of pollutants into waterways. Once constructed, the proposed Project would be below grade, the disturbed surfaces restored, and there would be no long-term impacts to hydrology and water quality. Potential adverse impacts to water quality from construction would be short-term and temporary and therefore, considered less than significant with mitigation measures incorporated.

Additionally, during construction the proposed Project could result in disturbed soils which could cause erosion and loss of topsoil into the existing drainages. If not treated or maintained properly, runoff from these construction activities could cause pollution that could violate water quality standards. MM GEO-1 would be implemented which requires the preparation and implementation of an erosion control prevention plan in accordance with City standards. This plan would implement specific BMPs to prevent the loss of soil into the existing drainages, thus minimizing the potential for pollution. Therefore, impacts from construction related runoff that could violate water quality standards would be considered less than significant with mitigation incorporated.

The proposed Project would be operated during storm events, as necessary, where combined sewer flows begin to outflow out of the Combined Sewer System into the local streets. The proposed Project would act as a storage basin to catch excessive stormwater flows and store them until they can be slowly released. The inherent nature of the proposed Project is to improve storage capacity for stormwater and act as a safety mechanism during storm events. Less stormwater outflows and runoff into the waterways of the City of Sacramento means less potential for pollution entering the water systems. Therefore, the overall potential for the proposed Project to violate any water quality standards or waste discharge requirements either through construction or operation would be considered less than significant with proposed mitigation measures incorporated.
Level of Significance: Less than Significant with Mitigation

Mitigation Measure: MM HYD-1, GEO-1

Impact HYD-2

Potential to 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).

Impact HYD-2 Analysis

The proposed Project would increase the amount of impervious surfaces in the region; however, the site is not a favorable location for groundwater recharge due to the shallow depth of the groundwater as well as the adjacent connection to the American River. No groundwater wells would be used for operation of the proposed Project and the promotion of groundwater infiltration would be incorporated into the design in order to limit any potential impacts to groundwater recharge. Additionally, the proposed Project in its entirety would be designed to store excess combined sewage during storm events. The location for the proposed Project was chosen due to the high proportion of flooding events, efficiency of the Vault at this location, and relatively low groundwater table. Groundwater infiltration in this area is minimal and the proposed Project would therefore, have a limited effect on overall groundwater recharge. During construction, groundwater wells would be utilized to dewater the proposed Project area while the Project components are constructed. During construction dewatering activities would be used onsite or for construction purposes or discharged into the combined sewer system but are not anticipated to deplete groundwater supplies since dewatering would be temporary and there would ultimately be no net deficit. Therefore, the impact on groundwater supplies and recharge from the proposed Project would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact HYD-3

Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

Impact HYD-3 Analysis

The proposed Project does not have the potential to substantially alter the existing drainage pattern of the site or area because the Project would not alter a stream or river and would not increase the amount of surface runoff in a manner which would result in on-site or off-site erosion or siltation. The objectives of the proposed Project include reducing flooding within the area of East Sacramento and to capture surcharge storm and sewer outflows. These objectives are designed to reduce flooding that is known to
occur within the area. Additionally, the City is required to meet the goal of the 2015 Combined Sewer System Improvement Program (CSSIP) Update and the requirements of the NPDES permit by reducing the combined sewer outflows released onto surface streets.

Although the construction activities may have the potential to temporarily alter existing site drainage patterns within and immediately around McKinley Park, these construction activities would be temporary, and the site would be regraded to appropriately drain stormwater. MM GEO-1 would also be implemented to further control construction impacts to erosion and runoff by incorporating and implementing the City’s standards related to erosion control and grading activities. Therefore, the potential for the proposed Project to substantially alter the existing drainage pattern or cause flooding of the site during construction is considered less than significant with mitigation.

Operation of the proposed Project would consist of capturing storm and combined sewer flows during storm events to prevent flooding. Since the proposed Project would be underground, it would not substantially alter drainage patterns or cause substantial erosion or siltation. The proposed Project would only be used when there are excessive stormwater flows in the region which would reduce flooding that is known to occur within the area. Therefore, the overall potential for the proposed Project to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation or flooding on- or off-site during construction or operation would be considered less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM GEO-1

| Impact HYD-4 | Potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. |

**Impact HYD-4 Analysis**

The proposed Project would be considered a stormwater drainage system that would be used to store excess stormwater flows. The 2015 CSSIP Update was initiated in response to the severe flooding events that have occurred in the region and identified improvement projects would help operation of the Combined Sewer System in order to meet the level of service required by the City’s NPDES permit. The City identified the proposed Project as a necessary component in order to be in compliance with the NPDES permit and to avoid future flooding in the area. The proposed Project has been designed to meet the capacity needs of the area which would allow for outflows or street flooding during a 10-year storm event. Therefore, the proposed Project’s potential to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required
Impact HYD-5  Potential to otherwise substantially degrade water quality.

Impact HYD-5 Analysis

Improper storage of hazardous materials on-site during construction could pose a risk of release of hazardous materials, thus contributing to the degradation of water quality. Section 3.7, Hazards and Hazardous Materials, provides further discussion on the hazardous materials that could be used during construction of the proposed Project. In order to reduce the potential of hazards materials release, MM HYD-1 would be implemented which includes the development of a Spill Prevention and Contingency Plan. This Plan involves specific actions and procedures the contractor must develop prior to construction in order to adequately prevent spills, or, in the unlikely event of a spill, proper procedures to be taken. This mitigation measure would reduce the potential for contamination of water supplies through runoff or ground water infiltration.

Additionally, inadvertent erosion that results in increased sediment in streams, or discharge of other materials into waterbodies, as a result of Project construction activities could result in adverse impacts to water quality. MM GEO-1 would be implemented during the construction phase to avoid and minimize potential adverse impacts to water quality from erosion and sedimentation.

Operation of the proposed Project would not involve actions that could degrade water quality. As such, the proposed Project would have a less than significant impact to water quality degradation during construction and operation with MM HYD-1 and MM GEO-1 incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Measures: MM HYD-1, MM GEO-1

Impact HYD-6  Potential to 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.

Impact HYD-6 Analysis

The proposed Project does not involve the construction of housing, and therefore, would have no potential to place housing within a 100-year flood hazard. As such, the proposed Project has no impact to placing 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.

Level of Significance: No Impact

Mitigation Measures: None Required
Impact HYD-7  Potential to place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Impact HYD-7 Analysis

The proposed Project is not within a 100-year flood zone but is located in an area that is protected from the 100-year flows by levees. Although the proposed Project would involve the construction of above ground and below ground structures, the area is not within a 100-year flood hazard area, and as such there would be a less than significant impact. Furthermore, the proposed Project would be designed to capture and store excessive stormwater flows that occur in the area. The design of the proposed Project would have a capacity to be able to withstand the flows during large storm events. Therefore, the proposed Project would not place structures which would impede or redirect flood flows within 100-year flood hazard area and thus no impact would occur.

Level of Significance: No Impact

Mitigation Measures: None Required

Impact HYD-8  Potential to 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.

Impact HYD-8 Analysis

The proposed Project would involve the placement of a structure within the flooding zone of a failed levee or dam. The proposed Project area is located within an area that is protected from 100-year flows by levees, which means that if one of the levees or dams within the area were to fail, the proposed Project could potentially be affected. However, the very nature of the proposed Project is to capture excess stormwater and sewer flows in the area and store them during storm events. Therefore, in the event of a levee or dam failure in the immediate area, the proposed Project would likely alleviate some of the flooding in the area by storing a portion of the excess flows. Additionally, the risk for the proposed Project to expose people to risk involving flooding would be minimal, because the proposed Project would be constructed underground and would not be intended for human habitation. Therefore, the potential for the proposed Project to 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 is considered less than significant.

Level of Significance: Less than Significant

Mitigation Measures: None Required
Impact HYD-9  Potential to cause inundation by seiche, tsunami, or mudflow.

Impact HYD-9 Analysis

The proposed Project’s inland location negates the risk of a tsunami. According to the National Oceanic and Atmospheric Administration (NOAA), seiche’s “occur in semi- or fully-enclosed bod(ies) of water [and] are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other” (NOAA 2017). Since there are no large bodies of water located near the proposed Project site, the probability of a seiche occurring is infeasible. The same applies to a tsunami occurring in the region due to the distance from a coastal region being over 80-miles away. Additionally, due to the relatively flat nature of the proposed Project area, the likelihood of mudflow accruing in the area is unlikely. Therefore, there would be no potential for the proposed Project to cause an inundation by seiche, tsunami, or mudflow.

Level of Significance: No Impact

Mitigation Measures: None Required

3.8.4 Mitigation Measures

See Mitigation Measure GEO-1.

Mitigation Measure HYD-1: Spill Prevention and Contingency Plan

Prior to construction, the contractor shall develop a Spill Prevention and Contingency Plan in compliance with the City’s Erosion and Sediment Control ordinances and with the City’s Design Manual for the Project to avoid or minimize potential impacts from construction material release. The plan shall include, but would not be limited to, the following:

- Containment and cleanup equipment (e.g., absorbent pads, mats, socks, granules, drip pans, shovels, and lined clean drums) shall be at the staging areas and construction site for use, as needed;
- Construction equipment shall be maintained and kept in good operating condition to reduce the likelihood of line breaks or leakage;
- No refueling or servicing shall be done without absorbent material (e.g. absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. If these activities result in an accumulation of materials on the soil, the soil shall be removed and properly disposed of as hazardous waste;
- If a spill is detected, construction activity shall cease immediately and the procedures described in the Spill Prevention and Contingency Plan shall be immediately enacted to safely contain and remove spilled materials;
- Spill areas shall be restored to pre-spill conditions, as practicable; and
- Spills shall be documented and reported to the City and appropriate resource agency personnel.
3.9 LAND USE AND PLANNING

This section describes the regulatory and environmental setting for land use and planning. It also describes impacts to land use and planning that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.9.1 Regulatory Framework

3.9.1.1 Federal and State

There are no Federal or State requirements related to land use and planning that are applicable to the proposed Project.

3.9.1.2 Local

Sacramento Area Council of Governments Blueprint

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the six-county Sacramento region. Its members include the counties of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba, as well as 22 cities, including the City of Sacramento. SACOG, in partnership with the non-profit organization Valley Vision, undertook the Blueprint project to build a consensus around a single, coherent, long-term vision for the development of the Sacramento region. The project was not intended to advocate any particular development pattern; instead, SACOG assumed that if it provided accurate information and forecasting tools to a wide variety of interest groups, a consensus would naturally emerge on what the region as a whole wanted for its future.

The Preferred Blueprint Scenario (or Blueprint) was adopted by the SACOG Board of Directors in December 2004. The Blueprint is a voluntary framework for guiding future growth in the region. The Blueprint is not a policy document and does not approve or prohibit growth in the region, but suggests general land uses and locations for growth. The Blueprint analyzes transportation and land use and provides suggestions for how cities and counties should grow based on seven interlocking key principles. The principles that relate to the proposed Project include:

- Use of Existing Assets, in particular the development of sites that are already within the urban footprint and urban services coverage. This includes both infill development of vacant lots as well as redevelopment of under-utilized sites such as low-density strip retail areas;
- Quality Design in terms of aesthetic buildings but also in terms of providing attractive, walkable public spaces that create a sense of community; and
- Conservation of Natural Resources through less conversion of land to urban use, slower growth of demand for water, and reduction in the amount of per-capita auto travel.
Metropolitan Transportation Plan/Sustainable Communities Strategies

SACOG is the Metropolitan Planning Organization responsible for developing the federally required Metropolitan Transportation Plan (MTP) and the new state-required Sustainable Communities Strategy (SCS) in coordination with the 22 cities, six counties, and other partner agencies in the greater Sacramento region. The MTP is a long-range plan for transportation in the region built on the Blueprint. Since the last MTP, California adopted Senate Bill (SB) 375, which requires a SCS be added to transportation plans across the state. SACOG adopted the MTP/SCS in April 2012, which is based on projections for growth in population, housing and jobs, provided by the cities and counties that comprise SACOG.

SB 375 was adopted with the goal of reducing greenhouse gas emissions from cars and light trucks. SB 375 will make it easier for communities to build housing and provide transportation choices. The SCS is a plan to meet the region’s greenhouse gas emissions reduction target, while taking into account regional housing needs, transportation demands, and protection of resource and farm lands based on the best forecast of likely land use patterns provided in coordination with SACOG’s partner agencies.

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan updated in 2015 includes goals and policies that seek to promote sustainable growth and development practices, including focusing growth on infill sites to reduce dependency on automobiles and increase use of other modes of transit. Other goals and policies focus on the creation of diverse neighborhoods that promote alternative modes of transportation and create a sense of place while integrating mixed uses and housing types for all socioeconomic levels. The 2035 General Plan seeks to create visually stimulating neighborhoods and commercial centers and corridors that center around pedestrian activity and create a sense of place and is intended to promote the type of growth identified as desirable in the SACOG Blueprint.

The following goals and policies from the Land Use and Urban Design Element of the 2035 General Plan are applicable to the Project.

Goal LU 1.1 Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

Policy LU 1.1.5 Infill Development. The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, redevelopment, mining reuse, and growth in existing urbanized areas to enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle-friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability.

Goal LU 1.2 Sustainable Sacramento Strategy. Support statewide and regional efforts to reduce greenhouse gas emissions, fund transportation improvements, and meet housing needs.
Goal LU 2.3 City of Trees and Open Spaces. Maintain multi-functional “green infrastructure” consisting of natural areas, open space, urban forest, and parkland, which serves as a defining physical feature of Sacramento, provides visitors and residents with access to open space and recreation, and is designed for environmental sustainability.

Goal LU 9.1 Open Space, Parks, and Recreation. Protect open space for its recreational, agricultural, safety, and environmental value and provide adequate parks and open space areas throughout the city.

Policy LU 9.1.1 Open Space Preservation. The City shall place a high priority on acquiring and preserving open space lands for recreation, habitat protection and enhancement, flood hazard management, public safety, water and agricultural resources protection, and overall community benefit.

Alhambra Corridor Special Planning District

The proposed Project would be within the Alhambra Corridor Special Planning District boundaries (Sacramento City Code 17.420.010). The goals of the Alhambra Corridor Special Planning District are as follows:

A. Maintain and improve the character, quality, and vitality of individual neighborhoods;

B. Maintain the diverse character and housing opportunities provided in these urban neighborhoods; and

C. Provide the opportunity for a balanced mixture of uses in neighborhoods adjacent to transit facilities and transportation corridors.

South Sacramento Habitat Conservation Plan

The South Sacramento Habitat Conservation Plan (SSHCP) encompasses approximately 317,656 acres and is bordered by Highway 50 to the north, San Joaquin County to the south, El Dorado County to the east, and the Sacramento River to the west (SSHCP 2017).

Natomas Basin Habitat Conservation Plan

The Natomas Basin Habitat Conservation Plan (NBHCP) includes approximately 53,341 acres and is bordered by the City of Sacramento to the south, Placer County to the east, Sutter County to the north, and Yolo County to the west (Final NBHCP 2003).

3.9.2 Environmental Setting

The following provides existing land uses on the proposed Project site as well as the surrounding land use designations and zoning.

The Project site is located within McKinley Park in East Sacramento, California. East Sacramento is a well-established community that began in the 1890s and continues to grow today. The Project site is designated as Public/Quasi-Public (PUB) according to the City 2030 General Plan Land Use Geographic Information System (GIS) layer (2017) and used as a neighborhood park.
McKinley Park, a neighborhood park, is bounded by residential streets and contains picnic areas, ball fields, tennis courts, a community center, a pond, a rose garden, and various walking paths. Additionally, trees are a predominant part of the landscape in this Park. The Project site, owned by the City, is located on Assessor’s Parcel Number (APN): 003-0010-002. Public streets and right-of-way may also be used for construction access.

The area around the Project site has a land use designation of Traditional Neighborhood Low Density (TNLD) (City of Sacramento 2017). Land uses in East Sacramento are a mix between residential, commercial, and open space elements. Surrounding land uses include mainly residential units located along McKinley Boulevard, 33rd Street, and H Street as well as mixed residential and commercial parcels along Alhambra Boulevard. The Interstate Business 80 Business Loop is approximately 0.20 miles west of the Project site and Highway 50 lies approximately 1.0 miles south of the Project site. Downtown Sacramento is approximately 1.5 miles further to the west of the Project site and the American River is approximately 1.0 miles north of the Project site. Further east of the Project site contains mostly mixed residential and commercial uses.

The Project site and surrounding area is zoned Single Family Residential/Special Planning District (R-1-SPD). (City of Sacramento 2017)

3.9.3 Environmental Impacts

3.9.3.1 Methodology for Analysis

According to the CEQA Guidelines’ Appendix G Environmental Checklist, the following thresholds of significance were established and were analyzed and evaluated to determine whether impacts to land use would be significant. Would the proposed Project:

- Physically divide an established community;
- 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; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

3.9.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project; however, the nature of the proposed Project is a public infrastructure project and once completed would not result in a change in the land use or zoning of the site.
Impact LAND-1  Potential to physically divide an established community.

Impact LAND-1 Analysis

The Project is proposed to be located in McKinley Park and would not physically divide an established community. The proposed Project consists of underground features and aboveground park enhancements. The proposed Project would improve the combined sewer system that serves the East Sacramento community, the existing community would remain intact and as such, would not be divided. This would mean that the proposed Project would have no potential to physically divide the established community of East Sacramento and there would be no impact.

Level of Significance: No Impact

Mitigation Measure: None Required

Impact LAND-2  Potential to 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.

Impact LAND-2 Analysis

The following analysis considers the proposed Project’s potential to conflict with applicable goals and policies of the City’s 2035 General Plan, the goals and regulations of the Alhambra Special Planning District designation, the City of Sacramento Zoning Ordinance, and the key principles of the SACOG Blueprint. Each are discussed below:

Consistency with City of Sacramento 2035 General Plan

Goal LU 1.1 and Policy LU 1.1.5 support sustainable growth and change through orderly and well-planned development in existing urbanized areas. The proposed Project would be designed to meet the existing infrastructure needs of the area.

Goal LU 1.2 and Policies LU 1.2.2 through LU 1.2.4 support statewide and regional efforts to reduce greenhouse gas emissions, fund transportation improvements, and meet housing needs. The proposed Project would add increased capacity in the combined sewer system which would help meet the housing needs. Additionally, the proposed Project would have a less than significant impact to traffic impacts, air quality, and greenhouse gasses which would not conflict with the policies.

Goal LU 2.3 encourages maintaining multi-functional “green infrastructure” and open spaces. The proposed Project would be constructed underneath McKinley Park and would be designed to avoid tree removal where feasible. The proposed Project would capitalize on the multi-functional aspects of McKinley Park by placing critical infrastructure within the open space of McKinley Park and would be consistent with maintaining open spaces within the City.
Goal LU 9.1 and Policy LU 9.1.1 promote protection of open space for its recreational, agricultural, safety, and environmental value. Although the proposed Project would be built within McKinley Park, the construction activities would be temporary and once completed would not affect the use of the Park. The proposed Project would not be able to be seen above ground except for the electrical control and, as such, would be consistent with the Goal and Policy.

Therefore, the proposed Project is consistent with the goals and policies of the City of Sacramento 2035 General Plan and there would be no impact.

Consistency with the Alhambra Corridor Special Planning District

The proposed Project would be in compliance with the goals of the Alhambra Corridor Special Planning District as stated in the Regulatory Framework section above. Since the proposed Project would not include the addition of housing or commercial facilities, none of the regulations for this special planning district would apply and there would be no impact.

Consistency with City of Sacramento Zoning Ordinance

A zoning designation applied to the Project site must be consistent with the General Plan and the anticipated use of the Project site. Because this Project is a public infrastructure project and the Project site has a land use designation of Public/Quasi-Public, the Project is compatible with the designated land use of the site. Additionally, the use of the site for an infrastructure project is compatible with the single family residential and special use district zoning designation as well since public combined sewer infrastructure supports residential uses. As discussed in the consistency with the Alhambra Corridor Special Planning District heading above, the proposed Project would not conflict with the goals or regulations of the Special Planning District. Therefore, there would be no impact.

Consistency with SACOG Blueprint

The proposed Project would not include housing or commercial buildings so these key principles do not apply; however, the proposed Project would improve the housing in Sacramento by reducing the flooding that has known to occur in the region. Therefore, the proposed Project would be consistent with the SACOG blueprint and there would be no impact.

Overall Consistency

Additionally, resources specific consistency analysis was completed in the respective resource sections as follows:

- As found in Impact AIR-1, Section 3.2, the proposed Project would not conflict with any local or regional air plans.
- As found in Impact BIO-5/6, Section 3.3, the proposed Project would not conflict with any local policies or ordinances protecting biological resources nor would the proposed Project conflict with any adopted habitat conservation plan or natural community conservation plan.
• As found in Impact GHG-2, Section 3.6, the proposed Project would not conflict with any plan, policy, or regulation related to greenhouse gas emissions.

• As found in Impact HAZ-5 and HAZ-7, Section 3.7, the proposed Project would not conflict with any airport land use plans or emergency response/evacuation plans.

• As found in Impact NOS-1, Section 3.10, the proposed Project would not conflict with any noise standards or the noise ordinance of the City of Sacramento.

• As found in Impact TRANS-1 and TRANS-6, Section 3.13, the proposed Project would not conflict with any plan, ordinance, or policy related to transportation.

Since the proposed Project does not have the potential to conflict with land use plans as described above and there would be no impact.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

---

**Impact LAND-3**

Potential to conflict with any applicable habitat conservation plan or natural community conservation plan.

**Impact LAND-3 Analysis**

The proposed Project does not fall within the boundaries of any Habitat Conservation Plan as discussed in the Biological Resources Section 3.3, above. Additionally, there are no special status species or other species covered under a habitat conservation plan present within the Project area and the proposed Project would not have a significant impact to biological resources (as discussed within Section 3.3). Therefore, the proposed Project would not conflict with the habitat conservation plans in the region, and thus, there would be no impact.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

---

**3.9.4 Mitigation Measures**

No mitigation required.
3.10 NOISE AND VIBRATION

This section describes the environmental and regulatory setting for noise. It also describes impacts on noise that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.10.1 Regulatory Framework

This section discusses the federal, state, and local regulations, policies and objectives for noise and vibration. Particularly, the City of Sacramento 2035 General Plan policies that govern noise and vibrations are discussed below and are applicable to the proposed Project.

3.10.1.1 Federal

Federal, State, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources closely linked to interstate commerce. These include aircraft, locomotives, and trucks. No federal noise standards are directly applicable to the proposed Project.

3.10.1.2 State

The State government sets noise standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles intended to guide and influence development plans.

The State of California General Plan Guidelines (Governor’s OPR 2014) establishes guidelines for the preparation of local general plan noise elements, including a sound level/land use compatibility chart that categorizes, by land use, outdoor Ldn ranges in four categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable). For many land uses, there are overlapping Ldn ranges for two or more compatibility categories. Table 3.10-1 lists the normally acceptable range and conditionally acceptable range of Ldn values in decibels (dB) for various types of land uses.

Table 3.10-1 State of California General Plan Acceptable Noise Range Guidelines

<table>
<thead>
<tr>
<th>Land Use</th>
<th>General Plan Acceptable Noise Range</th>
<th>Normally Acceptable Range</th>
<th>Conditionally Acceptable Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Density Residential</td>
<td></td>
<td>less than 60 dB</td>
<td>60–75 dB</td>
</tr>
<tr>
<td>High-Density Residential</td>
<td></td>
<td>less than 65 dB</td>
<td>65–75 dB</td>
</tr>
<tr>
<td>Educational and Medical Facilities</td>
<td></td>
<td>less than 60 dB</td>
<td>60–75 dB</td>
</tr>
<tr>
<td>Office and Commercial</td>
<td></td>
<td>less than 70 dB</td>
<td>70–80 dB</td>
</tr>
</tbody>
</table>
When noise levels are in the conditionally acceptable range, new construction should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation requirements are included in the design.

These overlapping Ldn ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

### 3.10.1.3 Local

**City of Sacramento 2035 General Plan**

The following relevant goals and policies are contained in the City of Sacramento 2035 General Plan Environmental Constraints (EC) Element (City of Sacramento 2015a). The General Plan identifies the normally acceptable exterior noise environment for residential land uses is 60 to 70 dB Ldn. In instances where attainment of the normally acceptable exterior noise level is not possible with best available noise reduction measures, the General Plan allows an exterior noise level exceeding the acceptable Ldn, up to the conditionally acceptable range, provided that noise level reduction measures have been implemented and that interior noise level standards are achieved.

**Goal EC 3.1 Noise Reduction.** Minimize noise impacts on human activity to ensure the health and safety of the community.

**Policy EC 3.1.1 Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table 3.10-2 below, to the extent feasible.

**Table 3.10-2 Exterior Noise Compatibility Standards for Various Land Uses**

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Highest Level of Noise Exposure That is Regarded as “Normally Acceptable”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential- Low Density Single Family, Duplex, Mobile Homes</td>
<td>60 dBA</td>
</tr>
<tr>
<td>Residential- Multi-family</td>
<td>65 dBA</td>
</tr>
<tr>
<td>Transient Lodging- Motels, Hotels</td>
<td>65 dBA</td>
</tr>
<tr>
<td>Schools, Libraries, Churches, Hospitals, Nursing Homes</td>
<td>70 dBA</td>
</tr>
<tr>
<td>Auditoriums, Concert Halls, Amphitheaters</td>
<td>Mitigation Based on site-specific study</td>
</tr>
<tr>
<td>Sports Arena, Outdoor Spectator Sports</td>
<td>Mitigation based on site-specific study</td>
</tr>
<tr>
<td>Playgrounds, Neighborhood Parks</td>
<td>70 dBA</td>
</tr>
<tr>
<td>Golf Courses, Riding stables, Water Recreation, Cemeteries</td>
<td>75 dBA</td>
</tr>
<tr>
<td>Office Buildings- Businesses, Commercial and Professional</td>
<td>70 dBA</td>
</tr>
</tbody>
</table>
Land Use Type | Highest Level of Noise Exposure That is Regarded as “Normally Acceptable”
--- | ---
Industrial, Manufacturing, Utilities, Agriculture | 75 dBA

Source: (City of Sacramento 2009b)

**Policy EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table 3.10-3, to the extent feasible.

**Table 3.10-3 Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)**

<table>
<thead>
<tr>
<th>Residences and Buildings where people normally sleep</th>
<th>Institutional land uses with primarily daytime and evening uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing (L&lt;sub&gt;an&lt;/sub&gt;)</td>
<td>Allowable Noise Increment</td>
</tr>
<tr>
<td>45</td>
<td>8</td>
</tr>
<tr>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>55</td>
<td>3</td>
</tr>
<tr>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>65</td>
<td>1</td>
</tr>
<tr>
<td>70</td>
<td>1</td>
</tr>
<tr>
<td>75</td>
<td>0</td>
</tr>
<tr>
<td>80</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: (City of Sacramento 2009b)

**Policy EC 3.1.3 Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and 45 dBA L<sub>eq</sub> (peak hour) for office buildings and similar uses.

**Policy EC 3.1.4 Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events, (such as aircraft overflights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance, undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

**Policy EC 3.1.5 Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.
Policy EC 3.1.7 Vibration. The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damage would occur.

Policy EC 3.1.9 Compatibility with Park and Recreation Uses. The City shall limit the hours of operation of parks and active recreation areas in residential areas to minimize disturbance to residences.

Policy EC 3.1.10 Construction Noise. The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses, to the extent feasible.

City of Sacramento Noise Ordinance

The City of Sacramento Noise Ordinance (Section 8.68 of the Sacramento City Code) states that it is unlawful for any person at any location within the City to create any noise that causes ambient noise levels at an affected receptor to exceed the noise standards shown in Table 3.10-4. Table 3.10-4 standards are specifically applicable to sources of noise which can be controlled at the local level. The City’s Noise Ordinance standards do not apply to traffic, aircraft, or railroad noise exposure as control of noise from those sources is subject to state or federal oversight, and not subject to local control.

Table 3.10-4 Noise Ordinance Standards Applicable at Exterior Spaces of Residential Uses

<table>
<thead>
<tr>
<th>Cumulative Duration of Intrusive Sound</th>
<th>Noise Metric</th>
<th>Daytime, dB</th>
<th>Nighttime dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative period of 30 minutes per hour</td>
<td>$L_{50}$</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>Cumulative period of 15 minutes per hour</td>
<td>$L_{25}$</td>
<td>60</td>
<td>55</td>
</tr>
<tr>
<td>Cumulative period of 5 minutes per hour</td>
<td>$L_{08}$</td>
<td>65</td>
<td>60</td>
</tr>
<tr>
<td>Cumulative period of 1 minute per hour</td>
<td>$L_{02}$</td>
<td>70</td>
<td>65</td>
</tr>
<tr>
<td>Level not to be exceeded for any time during hour</td>
<td>$L_{\text{max}}$</td>
<td>75</td>
<td>70</td>
</tr>
</tbody>
</table>

Section 8.68.080.D, Exemptions, exempts from the Noise Ordinance standards those noise sources due to the erection (including excavation), demolition, alteration, or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday through Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.
### 3.10.2 Environmental Setting

#### 3.10.2.1 Noise Baseline and Terminology

See Table 3.10-5 for terminology and definitions used throughout this section and Table 3.10-6 for typical noise levels.

**Table 3.10-5 Definition of Acoustical Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>dB, Decibel</td>
<td>Unit of measurement of sound level.</td>
</tr>
<tr>
<td>dBA, decibel A-Weighted</td>
<td>A unit of measurement of sound level corrected to the A–weighted scale, as defined in ANSI S1.4–1971 (R1976), using a reference level of 20 micropascals (0.00002 Newtons per square meter).</td>
</tr>
<tr>
<td>A – Weighted Scale</td>
<td>A sound measurement scale, which corrects the pressures of individual frequencies according to human sensitivities. The scale is based upon the fact that the region of highest sensitivity for the average ear is between 2,000 and 4,000 Hz. Sound levels are measured on a logarithmic scale in decibels, dB. The universal measure for environmental sound is the A–weighted sound level, dBA.</td>
</tr>
<tr>
<td>Hz, Hertz</td>
<td>Unit of measurement of frequency, numerically equal to cycles per second.</td>
</tr>
<tr>
<td>Loudness</td>
<td>A listener’s perception of sound pressure incident in his ear.</td>
</tr>
<tr>
<td>L01, L10, L50, L90</td>
<td>The A–weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.</td>
</tr>
<tr>
<td>Leq, Equivalent Noise Level</td>
<td>Also, called the equivalent continuous noise level. It is the continuous sound level that is equivalent, in terms of noise energy content, to the actual fluctuating noise existing at the location over a given period, usually one hour. Leq is usually measured in hourly intervals over long periods in order to develop 24–hour noise levels.</td>
</tr>
<tr>
<td>CNEL, Community Noise Equivalent Level</td>
<td>The CNEL is a measure of the cumulative noise exposure in the community, with greater weights applied to evening and night time periods. This noise descriptor is the equivalent noise level over a 24–hour period mathematically weighted during the evening and night when residents are more sensitive to intrusive noise. The daytime period is from 7:00 a.m. to 7:00 p.m.; evening from 7:00 p.m. to 10:00 p.m.; and nighttime from 10:00 p.m. to 7:00 a.m. A weighting factor of 1 dB is added to the measured day levels defined as 7 a.m. to 7 p.m., evening levels (7 p.m. to 10 p.m.) have a weighting factor of three and 10 dB to the night time levels (10 p.m. to 7 a.m.). The weighted levels over a 24–hour period are then averaged to produce the single number CNEL rating.</td>
</tr>
<tr>
<td>Ldn, Day/Night Noise Level</td>
<td>The same as CNEL except that the evening time period is not considered separately, but instead it is included as part of the daytime period. Measurements of both CNEL and Ldn in the same residential environments reveal that CNEL is usually slightly higher (by less than 1 dB) than Ldn due to the evening factor weighting.</td>
</tr>
<tr>
<td>Lmin, Lmax</td>
<td>The minimum and maximum A–weighted noise level during the measurement period.</td>
</tr>
</tbody>
</table>
Term | Definition
--- | ---
Ambient Noise Level | The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive | That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

### Table 3.10-6 Typical Sound Levels Measured in the Environment

<table>
<thead>
<tr>
<th>At a Given Distance from Noise Source (feet)</th>
<th>A–Weighted Sound Level in dBA</th>
<th>Noise Environments</th>
<th>Subjective Impression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shotgun (at shooter's ear)</td>
<td>140</td>
<td>Carrier Flight Deck</td>
<td>Painfully Loud</td>
</tr>
<tr>
<td>Civil Defense Siren (100')</td>
<td>130</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jet Takeoff (200')</td>
<td>120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loud Rock Music</td>
<td>110</td>
<td>Rock Music Concert</td>
<td>Pain Threshold</td>
</tr>
<tr>
<td>Diesel Pile Driver (100')</td>
<td>100</td>
<td></td>
<td>Very Loud</td>
</tr>
<tr>
<td>Ambulance Siren (100')</td>
<td>90</td>
<td>Boiler Room</td>
<td></td>
</tr>
<tr>
<td>Pneumatic Drill (50')</td>
<td>80</td>
<td>Noisy Restaurant</td>
<td></td>
</tr>
<tr>
<td>Freeway/Busy Traffic (100')</td>
<td>70</td>
<td></td>
<td>Moderately Loud</td>
</tr>
<tr>
<td>Normal conversation (5')</td>
<td>60</td>
<td>Data Processing Center</td>
<td></td>
</tr>
<tr>
<td>Light Traffic (100')</td>
<td>50</td>
<td>Private Business Office</td>
<td></td>
</tr>
<tr>
<td>Bird calls (distant)</td>
<td>40</td>
<td>Average living room library</td>
<td>Quite</td>
</tr>
<tr>
<td>Soft Whisper (5')</td>
<td>30</td>
<td>Quiet Bedroom</td>
<td></td>
</tr>
<tr>
<td>Normal Breathing</td>
<td>20</td>
<td>Recording Studio</td>
<td></td>
</tr>
</tbody>
</table>

The existing noise environment in a project area is characterized by the area’s general level of development because the level of development and ambient noise levels tend to be closely correlated. Areas which are not urbanized are relatively quiet, while areas which are more urbanized are nosier because of roadway traffic, industrial activities, and other human activities.

The proposed Project would be built within a urbanized neighborhood that is approximately 1.0- to 1.5-miles from the Downtown Sacramento area. Sensitive receptors, including homes, schools, parks, and commercial businesses are located throughout the area. The measurement of any sounds level requires language used specifically for the measurement of acoustical conditions. Decibel, or dB, is the preferred unit used to measure sound levels utilizing logarithmic scale to account for the large range in audible sound intensities. A general rule for dB scale is that a 10-dB increase in sound is perceived as a doubling of loudness by the human ear. For example, a 55-dB sound level would sound twice as loud as a 45-dB sound level. The average healthy person cannot detect differences of one dB, whereas a five-dB change is clearly noticeable. Several sound measurement descriptors are used to assess the effects of sound on the human environment. These include the equivalent sound level which is the level of a constant sound that has the same sound energy as the actual fluctuating sound. It is similar to the average sound level. The day-night sound level, Ldn, is similar to the 24-hour Leq; except that a 10-dB penalty is added to sound levels between ten p.m. and seven a.m. to account for the greater sensitivity of people to sound at night. The Community Noise Level (CNEL) also places a weighted factor on sound events occurring in the evening hours. The L90 value is the sound level (L) that is exceeded 90 percent of the time and is often used to describe the background or residual sound level.

3.10.2.2 Vibration

Operation of heavy construction equipment, particularly pile driving and other impact devices such as pavement breakers, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance would result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes would decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity (PPV). Table 3.10-7 summarizes guidelines vibration annoyance potential criteria suggested by Caltrans while Table 3.10-8 summarizes guideline vibration damage potential criteria suggested by Caltrans.
Table 3.10-7 Guideline Vibration Annoyance Potential Criteria

<table>
<thead>
<tr>
<th>Human Response</th>
<th>Maximum PPV (in/sec)</th>
<th>Transient Sources</th>
<th>Continuous/Frequent Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barely perceptible</td>
<td>0.04</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Distinctly perceptible</td>
<td>0.25</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>Strongly perceptible</td>
<td>0.9</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>Severe</td>
<td>2.0</td>
<td>0.4</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: California Department of Transportation 2004.

Table 3.10-8 Guideline Vibration Damage Potential Criteria

<table>
<thead>
<tr>
<th>Structure and Condition</th>
<th>Maximum PPV (in/sec)</th>
<th>Transient Sources</th>
<th>Continuous/Frequent Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely fragile historic buildings, ruins, ancient monuments</td>
<td>0.12</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>Fragile buildings</td>
<td>0.2</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Historic and some old buildings</td>
<td>0.5</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Older residential structure</td>
<td>0.5</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>New residential structures</td>
<td>1.0</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Modern industrial/commercial buildings</td>
<td>2.0</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: California Department of Transportation 2013.
3.10.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to noise. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.10.3.1 Methodology for Analysis

Available documentation related to the existing noise environment and sensitive receptors applicable in the proposed Project area, including previous environmental documents prepared for projects in the area, were reviewed to evaluate potential noise impacts. Further, regulatory information, including general plans of local agencies, were reviewed to address site specific concerns to these impacts by the proposed Project.

Using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.10.3.2 to determine whether potential public service impacts from the proposed Project on the baseline setting (Sections 3.10.1 and 3.10.2) would be significant.

Baseline ambient noise levels were identified by referring to the City of Sacramento 2035 General Plan, which defines population density noise levels. These baseline levels were used as an input to the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). The RCNM is used as the FHWA’s national standard for predicting noise generated from construction activities. The RCNM analysis includes the calculation of noise levels (Lmax and Leq) at incremental distances for a variety of construction equipment. The spreadsheet inputs include acoustical use factors, Lmax values, and Leq values at various distances depending on the ambient noise measurement location.

A potential impact would be significant if the proposed Project would:

- Expose persons to or generation of sustained noise levels above ambient noise conditions that could result in interference with speech or sleep;
- Expose persons to or generation of excessive groundborne vibration or groundborne noise levels;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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, or within the vicinity of a private airstrip, a project that would expose people residing or working in the project area to excessive noise levels;
3.10.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

Impact NOS-1

Potential to expose persons to or generation of sustained noise levels above ambient noise conditions that could result in interference with speech or sleep.

Impact NOS-1 Analysis

Noise would be generated during the construction of the proposed Project. Construction noise would be generated intermittently over the approximately two-year construction period and would not create a permanent addition to background noise levels. Sensitive noise receptors near the proposed Project may be affected by temporary construction noise. The RCNM was run to determine the maximum noise levels from construction equipment that would be used during various construction phases and the results are shown in Table 3.10-9.

Table 3.10-9 Summary of the Federal Highway Administration Roadway Construction Noise Model

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Acoustical Use Factor (%)</th>
<th>Lmax (25 Feet)</th>
<th>Leq (25 Feet)</th>
<th>Lmax (50 Feet)</th>
<th>Leq (50 Feet)</th>
<th>Lmax (100 Feet)</th>
<th>Leq (100 Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain Saw</td>
<td>20</td>
<td>89.7</td>
<td>82.8</td>
<td>83.7</td>
<td>76.7</td>
<td>77.7</td>
<td>70.7</td>
</tr>
<tr>
<td>Backhoe</td>
<td>40</td>
<td>83.7</td>
<td>79.6</td>
<td>77.6</td>
<td>73.6</td>
<td>71.5</td>
<td>67.6</td>
</tr>
<tr>
<td>Excavator</td>
<td>40</td>
<td>86.7</td>
<td>82.8</td>
<td>80.7</td>
<td>76.7</td>
<td>74.7</td>
<td>70.7</td>
</tr>
<tr>
<td>Front End Loader</td>
<td>40</td>
<td>85.1</td>
<td>81.2</td>
<td>79.1</td>
<td>75.1</td>
<td>73.1</td>
<td>69.1</td>
</tr>
<tr>
<td>Dump Truck</td>
<td>40</td>
<td>82.5</td>
<td>78.5</td>
<td>76.5</td>
<td>72.5</td>
<td>70.4</td>
<td>66.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>89.7</strong></td>
<td><strong>88.3</strong></td>
<td><strong>83.7</strong></td>
<td><strong>82.2</strong></td>
<td><strong>77.7</strong></td>
<td><strong>76.2</strong></td>
</tr>
</tbody>
</table>


As the results in Table 3.10-9 show, instantaneous (Lmax) noise levels from construction equipment could reach 89.7 Lmax and 88.3 Leq dBA at 25-feet at the nearest residential receptors to the proposed Project (representing a worst-case scenario if a backhoe, excavator, frontend loader, and dump truck were to operate simultaneously in the same location) and 77.7 Lmax and 76.2 Leq at 100-feet. Sensitive receptors in the proposed Project area (as close as 25-feet) may experience temporary interference with speech during the day in the Project area during construction. However, the change in the existing ambient noise level of approximately 70 dBA, to an approximate maximum of 89.7 dBA at 25-feet would be similar to the noise level of an ambulance siren 100-feet away (See Table 3.10-6 above). A more
typical noise level for Project construction activities would be the equivalent of the noise level of a freeway or busy traffic at 100-feet away. These construction activities are not anticipated to all occur concurrently on a regulator basis and would be limited to weekdays during daytime hours (seven am to six pm) and would also be limited to the approximate two-year duration of construction. Construction activities would occur in sporadic intervals with periods of construction start-up activities followed by quieter periods, thus limiting temporary exposure periods to clustered events during heavy construction activities that would not be sustained during the entire two-year duration of construction.

Following the general rule that a 10-dB increase in sound is perceived as a doubling of loudness by the human ear, Project construction would equate to more than double the perceivable sound level above ambient conditions. Construction activities would be limited to daytime hours (seven am to six pm) pursuant to the City of Sacramento Noise Ordinance Section 8.68.080.D and would be temporary lasting intermittently for the duration of the two-year construction period. These sound levels would be above the ambient level of 70 dBA for neighborhood parks, as shown in Table 3.10-4, and when equipment is in operation would be a noticeable deviation from ambient conditions for receptors surrounding the construction activities. While most receptors are further than 25-feet away from construction activities construction noise would be a temporary impact. Therefore, sound level increases to levels such as these are typical for the Project area and would not constitute a significant impact to speech within McKinley Park.

Additionally, pursuant to the City of Sacramento Noise Ordinance Section 8.68.080.D, the maximum allowable noise exposure standards as shown in Table 3.10-4, do not apply to those activities associated with actual construction of a project if such construction occurs between the hours of seven a.m. and six p.m., on Monday through Saturday, and between nine a.m. and six p.m. on Sunday. These exemptions are typical of City and County noise ordinances and reflect the recognition that construction-related noise is temporary in character, is generally acceptable when limited to daylight hours, and is part of what residents experience as part of a typical urban area noise environment (along with sirens, etc.). The City of Sacramento Noise Ordinance also effectively eliminates the possibility of the proposed Project substantially interfering with sleep, because construction activities would be limited to daytime hours when people are working, going to school, or are generally away from their homes. Therefore, because construction would be temporary and occur during the City of Sacramento designated construction hours, impacts from construction noise would be considered less than significant.

Further, if construction were to be required outside of exempt hours, construction activities would be subject to the Noise Ordinance which would ensure non-daytime sound levels are kept to less than significant levels. Therefore, the proposed Project would have a less than significant impact.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required
Impact NOS-2 Potential to expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Impact NOS-2 Analysis

During construction of the proposed Project, equipment such as excavators, loaders, backhoes, and loaded trucks would be used. Construction activities within the Park would be approximately 50- to 100-feet from the closest residences. Whereas during installation of the pipeline in 33rd Street, construction activities could be as close as 25- feet to residences. Construction equipment that would be used during Project construction would generate vibration levels between 0.001 and 0.27 peak particle velocity (PPV).

For the pipeline installation, vibration levels could have a maximum range of 0.003 to 0.210 from use of the vibratory compactor/roller. According to levels provided in Table 3.10-10, the groundborne vibration from the vibratory compactor could be considered severe at times (see Table 3.10-7); however, this equipment would be used a limited amount as construction activities are being completed and is used to compact soils once the Project is constructed. The use of the compactor is anticipated to last a short period of time (approximately one month).

Table 3.10-10 Construction Equipment Related to Groundborne Vibration

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Peak Particle Velocity at 25 feet</th>
<th>Peak Particle Velocity at 50 feet</th>
<th>Peak Particle Velocity at 100 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Bulldozer</td>
<td>0.089</td>
<td>0.031</td>
<td>0.011</td>
</tr>
<tr>
<td>Loaded Trucks</td>
<td>0.076</td>
<td>0.027</td>
<td>0.010</td>
</tr>
<tr>
<td>Small Bulldozer</td>
<td>0.003</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>0.035</td>
<td>0.012</td>
<td>0.004</td>
</tr>
<tr>
<td>Vibratory Hammer</td>
<td>0.070</td>
<td>0.025</td>
<td>0.009</td>
</tr>
<tr>
<td>Vibratory Compactor/roller</td>
<td>0.210</td>
<td>0.074</td>
<td>0.026</td>
</tr>
</tbody>
</table>

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines 2006b

Due to the short time period, it is not anticipated that vibration impacts from the vibratory compactor would be significant. All other vibratory impacts would be below the distinctly perceptible range (See Table 3.10-7). In addition, construction activities would occur in phases, thereby reducing potential impacts from vibrations. The vibration damage potential is defined in Table 3.10-8. Some of the residences located along 33rd Street could be considered older residential structures or in some cases historic buildings and could be more susceptible to vibration impacts. Vibration levels generated by the Project (See Table 3.10-10) would be below the vibration damage potential thresholds, as shown in Table 3.10-8 and therefore, the proposed Project would not have the potential to significantly expose these structures to construction.
# MCKINLEY WATER VAULT PROJECT

Noise and Vibration
April 2018

related groundborne vibration impacts. Hence, the impact would be less than significant. **Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

<table>
<thead>
<tr>
<th>Impact NOS-3</th>
<th>Potential to cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.</th>
</tr>
</thead>
</table>

**Impact NOS-3 Analysis**

Normal operations of the proposed Project would not involve a permanent increase in ambient noise levels above existing levels. The proposed Project, once constructed, would be underground except for the electrical control facility which would be constructed adjacent to the proposed Project. The proposed Project would not be operational during dry conditions and would only be in use in the event of a large storm event or flooding. The proposed Project would capture and store the excess stormwater and sewer flows from the surrounding area and then slowly release the flows to the two underground encased pumps. Due to the underground encasement of pumps, noise from the pump motors or other operational controls would not create significant effects aboveground and would be barely to not audible at all. Therefore, the potential for the proposed Project to cause a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the project is considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

<table>
<thead>
<tr>
<th>Impact NOS-4</th>
<th>Potential to cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.</th>
</tr>
</thead>
</table>

**Impact NOS-4 Analysis**

The proposed Project would have the potential to cause a substantial temporary increase in ambient noise levels during the construction activities. As discussed in Impact NOS-1 above, the noise generated during construction would be temporary in nature and would be intermittent over the course of two-years. Construction related noise could reach an approximate maximum of 89.7 dBA at 25-feet (See Table 3.10-9 above) which would be an increase from the ambient noise levels of the area of approximately 70 dBA. However, an increase to a dBA level of approximately 89.7 would be infrequent over the course of the two-year construction period. Noise levels of 77.7 to 76.2 dBA are more likely over the course of construction activities due to construction activities not all operating concurrently. This noise level would be the equivalent of the noise level of a freeway or busy traffic at 100 feet away, which is typical of the periodic noise increases of the Project area due to the urban nature of the surrounding region including commuting traffic in the mornings and evenings. Therefore, temporary construction noise from the proposed Project would be considered a less than significant impact.
Additionally, the City of Sacramento Noise Ordinance maximum allowable noise exposure standards, Table 3.10-4, do not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of seven a.m. and six p.m., on Monday through Saturday, and between nine a.m. and six p.m. on Sunday in accordance with the City’s Noise Ordinance Exemption (Sacramento City Code section 8.68.080). The proposed Project would be in conformance with this standard and therefore, the Project’s potential to cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project is considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

**Impact NOS-5**

Potential 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, or within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels.

**Impact NOS-5 Analysis**

The proposed Project is not located within an airport land use plan or within two miles of a public or private airport. The nearest airport is the Sacramento Executive Airport which is approximately 4.0 miles to the south of the proposed Project site. Therefore, there would be no potential for the project to expose people residing or working in the project area to excessive noise levels.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

**3.10.4 Mitigation Measures**

No mitigation required.
3.11 PUBLIC SERVICES

This section describes the regulatory and environmental setting for public services. It also describes impacts on public services that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.11.1 Regulatory Framework

3.11.1.1 Federal

There are no specific federal regulations that govern the provision of local public services.

3.11.1.2 State

Uniform Fire Code

The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The code contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, include regulations for building standards (as also set forth in the California Building Code (CBC)), and fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Division of Occupational Safety and Health

In accordance with California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Equipment, the Division of Occupational Safety and Health (DOSH) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

3.11.1.3 Local

Sacramento City Code

Section 8.100.540 of the Sacramento City Code states that all buildings or portions thereof shall be provided with the degree of fire resistive construction as required by the CBC for the appropriate occupancy, type of construction, and location on property or in fire zone, and shall be provided with the appropriate fire-extinguishing systems or equipment required by the CBC. Chapter 15.36 includes
numerous codes relating to the inspection and general enforcement of the City of Sacramento fire code; control of emergency scenes; permits; general provisions for safety, fire department access, equipment, and protection systems; and many standards for fire alarm systems, fire extinguisher systems, commercial cooking operations, combustible materials, heat producing appliances, exit illumination, emergency plans and procedures, and so on.

City of Sacramento 2035 General Plan

The following goals and policies from the City of Sacramento 2035 General Plan, Public Health and Safety (PHS), and Education, Recreation, and Culture (ERC), are applicable to the proposed Project.

**Goal PHS 1.1 Crime and Law Enforcement.** Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety and well-being of our city, reduce current and future criminal activity, and incorporate design strategies into new development.

**Policy PHS 1.1.2: Response Time Standards.** The City shall strive to achieve and maintain optimal response times for all call priority levels to provide adequate police services for the safety of all city residents and visitors.

**Policy PHS 2.1.2 Response Time Standards.** The City shall strive to maintain appropriate emergency response times to provide optimum fire protection and emergency medical services to the community.

**Policy PHS 2.2.4 Water Supplied for Fire Suppression.** The City shall ensure that adequate water supplies are available for fire suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.

**Goal ERC 2.1 Integrated Parks and Recreation System.** Provide an integrated system of parks, open space areas, and recreational facilities that are safe and connect the diverse communities of Sacramento.

**Policy ERC 2.1.1 Complete System.** The City shall develop and maintain a complete system of parks and open space areas throughout Sacramento that provide opportunities for both passive and active recreation.

**Policy ERC 2.1.2 Connected Network.** The City shall connect all parts of Sacramento through integration of recreation and community facilities with other public spaces and rights-of-way (e.g., buffers, medians, bikeways, sidewalks, trails, bridges, and transit routes) that are easily accessible by alternative modes of transportation.

**Goal ERC 2.2 Parks, Community and Recreation Facilities and Services.** Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.

**Policy ERC 2.2.2 Timing of Services.** The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.
3.11.2 Environmental Setting

Schools

The Sacramento City Unified School District (SCUSD) is the primary provider of school services with the City limits. Other school districts in the region include Twin Rivers Unified School District (TRUSD), Robla School District (RSD), Natomas Unified School District (NUSD), San Juan Unified School District (SJUSD), and the Elk Grove Unified School District (EGUSD) for a total of six school districts within the region. There are over 150 school between the six school districts.

Tiny Tots daycare is located in the rose garden building adjacent to the Project site within McKinley Park. Sutter Middle School, is located approximately 0.10- miles from the proposed Project and Lincoln Law School is located approximately 0.25-miles from the proposed Project site. No other schools are located within 0.25 miles of the Project site.

Police Protection

Within the City limits police protection services are provided by the Sacramento Police Department (SPD) and outside of the City limits the County Sheriff’s Department provides police protection services. Additional police protection is also provided by the California Highway Patrol, UC Davis Medical Center Police Department, and the Regional Transit Police Department.

There are four Districts from which the SPD operates which include the North Command, the Central Command, the East Command, and the South Command. The East Command (District 6) is where the proposed Project lies, and more specifically in beat 6D. The police station for this beat is located at 7397 San Joaquin Street, however, there are a number of other police stations in the area that are about equal distances from the proposed Project site. Additionally, the median officer response time for emergency calls in 2016 was approximately 10 seconds and the median officer response time for lower priority calls in 2016 was approximately one minute and seven seconds (City of Sacramento Police Department 2016).

Fire Protection

The Sacramento Fire Department (SFD) is responsible for fires, medical emergencies, hazardous materials, and technical and water rescue within the City of Sacramento. The SFD Headquarters is located at 5770 Freeport Boulevard, although the nearest fire department to the proposed Project site is located at 3145 Grenada Way (approximately 0.5-miles from the Project site), Fire Station 4. Since the County of Sacramento developed a Joint Powers Authority (JPA), this means that all calls are routed through a central dispatch center and then the nearest fire station responds to that emergency. The SFD has fire stations strategically located throughout the City to provide maximum assistance to all areas of Sacramento.

Response time goals for the first responders is to arrive within four-minutes 90 percent of the time for fire suppression and paramedic service and to arrive within eight-minutes 90 percent of the time for medic units (City of Sacramento Fire Department 2016).
Parks and Recreation

The City of Sacramento Department of Youth, Parks, & Community Enrichment maintains more than 2,300 acres of developed parkland and manages 222 parks; 88 miles of bikeways and trails; 21 lakes, ponds, or beaches; and over 27 aquatic facilities within the City. The City of Sacramento Parks and Recreation Master Plan (PRMP) identifies 10 Community Plan Areas (PA) within the City. The proposed Project is located within Community Plan Area 1 Central City (PA1). Within PA1, there are a total of 16 City-owned or City-controlled neighborhood and community parks. The combined acreage of the parks within PA1 is approximately 105.1 acres. The proposed Project site is located within McKinley Park which is the biggest park identified within PA1. Amenities within McKinley Park include tennis courts, baseball and soccer fields, jogging paths, horseshoe, picnic areas, volleyball courts, community center, swimming pool, playground, and a rose garden (City of Sacramento McKinley Park ND).

Additionally, the PRMP outlines goals for service ratio on a city wide and regional level of providing eight acres of parks for every 1,000 residents. The Technical Update to the PRMP had a service level of 4.7 acres per 1,000 residents for both neighborhood and community parks (City of Sacramento 2009). However, the recently published City of Sacramento 2035 General Plan introduced a new service level goal of 1.75 acres of neighborhood and community parks per 1,000 residents within Central City (the proposed Project area) and 3.5 acres of neighborhood and community parks per 1,000 residents outside of the Central City area. The 2035 General Plan as stipulated that 17 additional acres of parks would be needed to meet these new goals based on the projected population in 2035 (City of Sacramento 2015).

3.11.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to public services. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.11.3.1 Methodology for Analysis

Using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.11.3.2 to determine whether potential public service impacts from the proposed Project on the baseline setting (Sections 3.11.1 and 3.11.2) would be significant. A potential impact would be significant if the proposed Project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire protection;
  - Police protection;
Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

Impact PUB-1 Analysis

Fire Protection

The proposed Project would not include residential uses and no people would reside on the proposed Project site; therefore, the proposed Project would not require the need for new or physically altered governmental facilities. A maximum of approximately 50 construction workers per day with an average of 10 workers per day would be on the Project site during construction. The slight increase in people within the Project area could potentially incrementally increase the need for fire, or medical response services. However, the increased need would be very minor and temporary and only occur during Project construction; therefore, no new or physically altered fire protection facilities would be required.

Additionally, once the proposed Project construction is complete, the underground and above ground features would be mostly non-flammable and constructed of concrete, metal, and largely covered with compacted soil fill. The trusses on the electrical facility and restroom would be constructed of timber posing a slight fire risk. However, a fire occurring within the proposed Project features is unlikely given the majority of fire-resistant building materials used such as concrete and metals. The Project site would be adequately served by the existing fire station and would not require the construction of a new fire station. As such, there would be no substantial adverse impact requiring additional fire protection services nor a change in response times or service levels caused by operation of the proposed Project.

Regional construction traffic in the area resulting from construction of the proposed Project could impede surrounding roadway access if haul trucks were to queue on the surface streets rather than within the
Project site which could in turn affect emergency response times if emergency services are not properly notified. Additionally, construction within the roadways surrounding the Project site would result in temporary road closures that could also result in potential impacts to emergency response times if not properly noticed. To allow emergency services to properly route response teams, MM-TRANS-2 would notify the SFD of any detours, road closures, or unusually heavy construction traffic in order for SFD to plan emergency response routes accordingly. Additionally, if an unanticipated detour or road closure occurs, the City would notify the SFD as soon as possible to avoid delays in the event of an emergency. Therefore, impacts related to fire protection would be less than significant with mitigation incorporated.

Police Protection

The proposed Project would not include residential uses and no people would reside on the Project site and the proposed Project would not modify the use of the Park site in such a way that would result in a greater need for police protection; therefore, the proposed Project would not require the need for new or physically altered governmental facilities since the operation of the proposed Project would not change the nature of the Park facility. Since no new or permanent residents would be living on the Project site, the number of emergency law enforcement calls originating from the Project site would be minimal. A maximum of approximately 50 construction workers per day with an average of 10 workers per day would be on the Project site during construction. This minor increase in people could temporarily increase the potential need for police protection services but since Park users would temporarily be displaced, the number of people onsite potentially requiring police protection would be similar. Further, the limit of construction to day time uses, the fencing around the Project site, and exclusion of the public from the site would likely require less police services than are currently needed at the Park. Therefore, no new or physically altered police protection facilities would be required.

As with emergency response mentioned under the fire protection heading, potential impacts to police response times could result as well requiring MM TRANS-2 to notify both the public and the SPD of any anticipated lane closures, delays, or detours in or around McKinley Park. This would ensure that the SPD could respond to emergencies without delays from construction related traffic, including detours and lane closures. Therefore, potential impacts associated with police protection services would be less than significant with mitigation incorporated.

Schools

The proposed Project would not include residential uses and no people would reside on the Project site; therefore, the proposed Project would not result in an increase in population that would subsequently generate new student enrollment in local schools. As such, the proposed Project would not result in the construction of new or the expansion of existing school facilities.

The Tiny Tots Daycare facility is located immediately adjacent to the proposed Project site in McKinley Park and the nearest public school to the proposed Project site is Sutter Middle School which is approximately 0.10-miles from the Project site. Although direct access to Sutter school would not be affected, the school’s close proximity to the Project site has a slight potential for the routes vehicles and buses take to get to the school to be impacted, however, due to the localized nature of construction traffic it is not anticipated that any potential impact would be significant. Additionally, direct access to Tiny Tots...
Daycare would be maintained throughout construction. Operation of the proposed Project would not involve an increase in traffic beyond the periodic maintenance of the proposed Project. Therefore, the impacts associated with school facilities would be less than significant during the construction and operation of the proposed Project.

**Parks**

The proposed Project would not include residential uses that could result in an increase in population which may subsequently increase the need for more parks in the area since the Project is located within McKinley Park and includes Park restoration and potential enhancements. As such, the proposed Project would not result in the construction of new or the expansion of existing park facilities.

The proposed Project would be located within McKinley Park which is a designated community park within the City of Sacramento. The construction activities associated with the proposed Project would temporarily require closure of a portion of the Park and would restrict some Park use for a two-year period. However, once constructed, the proposed Project includes restoring the McKinley Park back to its existing conditions. Also, where feasible, the proposed Project includes McKinley Park enhancements. However, the Park enhancements include a new restroom facility, shade structures, irrigation system improvements, etc. and are not a substantial expansion of Park facilities. As such, development of the proposed Project would not require the construction of new or expanded Park facilities. Therefore, potential impacts associated with park facilities would be less than significant during the construction and operation of the proposed Project.

**Other Facilities**

The proposed Project would not include residential uses that could result in an increase in population which may subsequently increase the need for any other governmental facilities. No natural gas facilities, telecommunication facilities, libraries, or other governmental facilities would be affected by the proposed Project. Therefore, potential impacts associated with other governmental facilities would be less than significant during the construction and operation of the proposed Project.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-2

**3.11.4 Mitigation Measures**

See Mitigation Measure TRANS-2.
3.12 RECREATION

This section describes the regulatory and environmental setting for recreation. It also describes impacts to recreation that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.12.1 Regulatory Framework

3.12.1.1 Federal

There are no Federal regulations that apply to this project pertaining to recreation and recreational facilities.

3.12.1.2 State

California Government Code Section 65560(b)

California Government Code section 65560(b) defines “open space land” as any parcel or area of land or water that is unimproved and devoted to an open space use. State law requires that the local general plans include an Open Space element to promote the retention of open space for recreational purposes.

California’s Recreation Policy

The 2005 California Recreation Policy provides a comprehensive set of policies for many types of recreation activities ranging from active to passive, indoors to outdoors, on land and water, in facilities, and in programs and support functions (California State Parks 2005). This policy addresses five separate areas of recreation including adequacy of recreation, leadership, health, preservation, and accessibility. The following policy objectives are relevant to the proposed Project:

1. **Adequacy of recreation opportunities**: The supply of parklands, water, open space, recreation facilities, and services must be adequate to meet future and current demands, particularly in the state’s most populated areas.

2. **Preservation of natural and cultural resources**: Educating Californians about their state’s invaluable resources is a critical part of ensuring these resources continue to be available for the enjoyment of current and future generations.

3. **Accessibility to all Californians**: All citizens have the right to enjoy California’s park and recreation legacy.

3.12.1.3 Local

City of Sacramento 2035 General Plan

The following goals and policies from the Parks and Recreation Element (ERC) related to recreation and are relevant to the proposed Project. (City of Sacramento 2015a)
Goal ERC 2.2 Parks, Community, and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the City; and are responsive to the needs and interests of residents, employees, and visitors.

Policy ERC 2.2.4 Park Acreage Service Level Goal. The City shall strive to develop and maintain five acres of neighborhood and community parks and other recreational facilities and/or sites per 1,000 people of population.

City of Sacramento Municipal Code

Chapter 12.72 (Park Buildings and Recreational Facilities). The City's Municipal Code includes regulations associated with building and park use, fundraising, permit procedures, and various miscellaneous provisions related to parks. Park use regulations include a list of activities that require permits for organized activities that include groups of 50 or more people for longer than 30 minutes, amplified sound, commercial and business activities, and fund-raising activities. This code also includes a list of prohibited uses within parks such as unleashed pets, firearms of any type, drinking alcoholic beverages; or smoking near children's playground areas.

Chapter 16.64 (Parks and Recreational Facilities). This chapter provides standards and formulas for the dedication of parkland and in-lieu fees. These policies help the City acquire new parkland. This chapter sets forth the standard that five acres of property for each 1,000 persons residing within the City be devoted to local recreation and park purposes.

The City of Sacramento Parks and Recreation Master Plan (2005-2010)

The City of Sacramento Parks and Recreation Master Plan (PRMP) includes various implementation strategies to help fulfil the vision and goals of the PRMP. The strategies that are relevant to the proposed project include:

4.0 Facility Use and Management

4.2 Protect and invest in the parks and recreation system’s infrastructure (including all turf, landscaping, buildings, and other physical elements/improvements).

8.0 Maintenance (Parks)

8.2 Assess the physical condition of all key City park and recreation system infrastructure elements.

12.0 Planning, Design, and Development

12.7 Develop parks and recreation facilities according to the City of Sacramento’s Park Design and Development Standards.
3.12.2 Environmental Setting

The City of Sacramento Department of Youth, Parks, & Community Enrichment maintains more than 2,300 acres of developed parkland and manages 222 parks; 88 miles of bikeways and trails; 21 lakes, ponds, or beaches; and over 27 aquatic facilities. The City of Sacramento PRMP identifies 10 Community Plan Areas (PA) within the City. The proposed Project is located within PA1. Within PA1, there are a total of 16 City-owned or City-controlled neighborhood and community parks. Sutter’s Landing Regional Park is located just north of the proposed Project site, approximately 0.5-miles across Interstate Business 80. This is the largest park in the area at 163 acres and it is considered the gateway for the American River Parkway to the immediate north of the park. Three smaller parks; Marshall Park, Leland Stanford Park, and Lubin School Park are each located approximately 0.3-miles from McKinley Park. Amenities within McKinley Park include tennis courts, baseball and soccer fields, jogging paths, horseshoe, picnic areas, volleyball courts, a community center, swimming pool, playground, and a rose garden.

3.12.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to recreation. When an impact is determined to be significant, mitigation measures have been identified that would reduce or avoid that impact.

3.12.3.1 Methodology of Analysis

In response to comments received and using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.12.3.2 to determine whether potential recreation impacts from the proposed Project on the baseline setting (Sections 3.12.1 and 3.12.2) would be significant. A potential impact would be significant if the proposed Project would:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;
- Result in substantial interference with park recreation;
- Result in permanent displacement of existing recreational facilities or substantial permanent decrease in access to existing recreational facilities or opportunities.

3.12.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.
Impact REC-1  Potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact REC-1 Analysis

During construction of the proposed Project there would be a temporary closure of portions of McKinley Park which would restrict recreation access. These restrictions on use could result in park visitors temporarily making use of the nearby parks during the disruption at McKinley Park. This could cause an increase in use at nearby neighborhood and regional parks. However substantial physical deterioration due to short-term use is not anticipated because the use would be temporary (less than approximately two years) and consistent with the intended use of the park facilities. Additionally, there are multiple parks within the vicinity which would distribute users amongst several parks so they would not be concentrated at one particular park. Therefore, the potential for the proposed Project construction activities to 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 is less than significant.

The operation of the Project post-construction would not affect the recreation activities within McKinley Park. The completed Project would benefit the recreation features of McKinley Park by restoring park features impacted by construction and where feasible even improving some features. Routine maintenance would not interfere with the recreation activities within McKinley Park. Operation of the proposed Project would not have the potential to increase use which could substantially deteriorate the park facility. Therefore, no operational impact would occur.

Based on the assessment of construction and operational impacts, the overall potential for the proposed Project to 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 would be considered less than significant and no mitigation is required.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact REC-2  Potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact REC-2 Analysis

The proposed Project is located within McKinley Park which would temporarily restrict public access to portions of the Park but would not have a lasting negative impact on the Park since the Park would be restored to existing conditions with the potential for park enhancements where feasible (as discussed in the Project Description). As evaluated throughout this EIR, the proposed Project would not have an adverse physical effect on the environment from the whole Project or restoration of recreation facilities at McKinley Park. Additionally, construction and operation of the proposed Project would not require the
construction or expansion of recreational facilities since the Project would not reduce the recreational facilities available or introduce new users of recreational facilities. Therefore, the potential for the proposed Project to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment during construction or operations would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

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**Impact REC-3**  
Potential to result in substantial interference to park recreation.

**Impact REC-3 Analysis**

Construction of the proposed Project would result in temporary, localized effects on the usability and availability of McKinley Park. Disruption to recreation resources include the sports field, portions of the jogging path, and picnic area. Also, indirect construction related disturbances such as noise and dust could deter park users from using some of the park features (such as fitness classes or weddings within the rose garden) intermittently during the two-year construction period. These potential impacts are not considered environmentally significant regarding noise and air quality as discussed in further detail in Section 3.2 Air Quality and Section 3.10 Noise, respectively. However, they could result in temporary impacts to recreational uses by discouraging use of the park intermittently during periods of heavy construction activity. While posing a temporary inconvenience to park users, construction disruptions to park use would not substantially interfere with park recreation since the disruption is only temporary. Also, only a portion of McKinley Park would be closed and areas such as the playground, swimming pool, and tennis courts would still be accessible.

Additionally, there are several other parks in the surrounding area including Sutter’s Landing Park, Leland Stanford Park, and Marshall Park available to the public in lieu of McKinley Park if users so choose. These parks include amenities such as play areas, fitness stations, baseball and soccer fields, picnic areas, and walkways/jogging paths. As discussed further in the Construction Characteristics portion of the Project Description (Section 2.4), the City aims to work with residents and park users by informing the public about construction activities and providing two-way communications for public outreach to help limit temporary inconveniences. Because impacts to recreation in McKinley Park are temporarily, only a portion of the park would be temporarily physically closed, and other park resources are available nearby, the potential for impacts resulting in interference to park recreation would be considered less than significant.

Operations of the proposed Project would not restrict recreation activities within McKinley Park. The constructed proposed Project would restore the Park to existing conditions and may include minor facility enhancements such as improved irrigation systems or a new restroom. Routine maintenance would not restrict recreation activities within McKinley Park. As such, operation of the proposed Project would not result in substantial interference to recreation in McKinley Park.
Based on the assessment of temporary construction impacts and operational impacts, the overall potential for the proposed Project to result in substantial interference to recreation in McKinley Park would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

### Impact REC-4

**Potential to result in permanent displacement of existing recreational facilities or substantial permanent decrease in access to existing recreational facilities or opportunities.**

**Impact REC-4 Analysis**

Construction of the proposed Project would result in temporary displacement of and access to some recreational facilities or opportunities at McKinley Park during Project construction. Most facilities within McKinley Park would still be available for park visitors during the two-year construction period. Upon completion of construction, most Project features would be underground except for the electrical control building. The baseball field would be restored to its pre-Project condition or enhanced with a new soccer field. Landscaping and grass areas would be replaced, and paths and roadways would be restored. Overall, displacement of or decrease in access to existing recreational facilities or opportunities would be temporarily impacted by construction activities, however, this impact would be limited in time and location, and the long-term effects would be limited due to their underground nature and consistency with park features. Therefore, this would be considered less than significant with no mitigation required.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

### 3.12.4 Mitigation Measures

No mitigation required.
3.13 TRANSPORTATION AND TRAFFIC

This section describes the regulatory and environmental setting for transportation and traffic. It also describes impacts on transportation and traffic that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.13.1 Regulatory Framework

3.13.1.1 Federal

No federal plans, policies, regulations, or laws related to transportation/traffic apply to the Project.

3.13.1.2 State

California Department of Transportation

The California Department of Transportation (Caltrans) manages interregional transportation, including the management and construction of the California highway system. In addition, Caltrans is responsible for the permitting and regulation of state roadways. State facilities likely to be used as regional access routes by construction traffic include Interstate 80. Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbance.

3.13.1.3 Local

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan requires that all projects that include construction activities must complete a Traffic Management Plan (also required by the Sections 12.20.020 and 12.20.030 of the Sacramento City Code). These Traffic Management Plans require review and approval by the City’s Public Works Department (City of Sacramento 2015a).

The Mobility Element of the City of Sacramento’s 2035 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses and the relevant goal and policies are as follows:

Goal M 1.2 Multimodal System. Increase multimodal accessibility (i.e., the ability to complete desired personal or economic transactions via a range of transportation modes and routes) throughout the city and region with an emphasis on walking, bicycling, and riding transit.

Policy M 1.2.2 Level of Service (LOS) Standard. The City shall implement a flexible context-sensitive Level of Service (LOS), and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure Vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City’s specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints.
As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City’s diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour with the following exceptions described below:

A. Core Area (Central City Community Plan Area) - LOS F allowed

D. Other LOS F Roadways (H Street is included in this category)

**Goal M 4.1 Street and Roadway System.** Create a context-sensitive street and roadway system that provides access to all users and recognizes the importance that roads and streets play as public space. As such, the City shall strive to balance the needs for personal travel, goods movement, parking, social activities, business activities, and revenue generation, when planning, operating, maintaining, and expanding the roadway network.

**Policy M 4.1.1 Emergency Access.** The City shall develop a roadway system that is redundant (i.e., includes multiple alternative routes) to the extent feasible to ensure mobility in the event of emergencies.

**Goal M 4.3 Neighborhood Traffic.** Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City’s desire to provide a grid system that creates a high level of connectivity

**Policy M 4.3.1 Neighborhood Traffic Management.** The City shall continue wherever possible to design streets and approve development applications in a manner as to reduce high traffic flows and parking problems within residential neighborhoods.

**Goal M 5.1 Integrated Bicycle System.** Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City’s bicycle mode share goal as documented in the Bicycle Master Plan.

**Goal M 6.1 Managed Parking.** Provide and manage parking such that it balances the citywide goals of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.

**Policy M 6.1.1 Appropriate Parking.** The City shall manage public parking and regulate the provision and management of private parking to support parking availability and auto access to neighborhoods across the city, with consideration for access to existing and funded transit service, mixed use development, and shared parking opportunities.

Sacramento City Code

Section 12.20.020 of the Sacramento City Code has the following provisions related to construction traffic within the City limits:
A. Except when performing emergency repairs, no person shall perform any work that will obstruct vehicular traffic on a city street unless a traffic control plan has been approved by the director.

C. All work requiring a traffic control plan shall conform to the conditions and requirements of the approved plan.

D. Where a traffic control plan is required, the approved plan must be available at the site for inspection by the director during all work

E. If the director determines that actual traffic conditions under the approved plan are hazardous to public safety, the director may require the plan to be immediately modified. If the hazardous conditions cannot be eliminated by plan modification the director may require work under the plan to be stopped, and the plan suspended, until the safety hazard is remedied.

The specific requirements for a traffic control plan are described in Section 12.20.030 of the Sacramento City Code and should include the appropriate diagrams, proposed time periods that traffic control would be in effect, and any proposed phases of the project that would affect the traffic control plan.

City of Sacramento Bicycle Master Plan (2010)

The purpose of the Sacramento City Bicycle Master Plan is to establish bicycle-related investments, policies, programs and strategies to establish a complete bicycle system. This will encourage more bicycling by the citizens of Sacramento for both transportation and recreation, thereby allowing the City of Sacramento to meet General Plan emission targets. The Bicycle Master Plan was updated in 2015 to further engage under-represented neighborhoods, evaluate the equity related to bicycle infrastructure, and identify best practice bikeway designs to better connect the City’s Low-stress bikeway network. Class II bike lanes border much of McKinley Park.

City of Sacramento Pedestrian Master Plan (2006)

The purpose of the Pedestrian Master Plan is to make Sacramento a model pedestrian-friendly city, also known as the “Walking Capital” (Pedestrian Master Plan 2006). The current overarching objectives of the Plan are to institutionalize pedestrian considerations and to improve the current pedestrian deficiencies. The goals of the Plan include improving awareness through education, creating a walkable pedestrian environment, and increasing pedestrian safety.

Neighborhood Traffic Management Program

The City of Sacramento has a Neighborhood Traffic Management Program (NTMP) through which neighborhoods may petition the City to install traffic calming devices to address residents’ concerns about traffic. There are two phases of an NTMP. Phase I involves less restrictive modifications such as the installation of high visibility speed limit signs, striping of bike lanes, and the installation of speed humps. Phase II involves more restrictive measures including half and full-street closures, diverters, and one-way/two-way street conversions. Phase II modifications are implemented if the Phase I modifications do not adequately address neighborhood concerns. McKinley Park has completed Phase I improvements.
which included speed humps on McKinley Boulevard and 33rd Street as well as upgraded signage, roadway striping, pedestrian refuge lanes, and bulb outs (e.g. curb extension) at various locations.

Sacramento Area Council of Governments Metropolitan Transportation Plan/Sustainable Communities Strategy

In April 2012, Sacramento Area Council of Governments (SACOG), the designated Metropolitan Planning Organization (MPO) for the Sacramento region, adopted a Metropolitan Transportation Plan/Sustainable Communities Strategy for 2035 (MTP/SCS) (SACOG 2012). Building on prior plans including the Blueprint Growth Strategy discussed below and the 2008 MTP, the SCS accommodates future growth through a more compact land use pattern largely within the region’s current development footprint, emphasizes operational improvements over new roadway capacity projects, and reflects other factors that have tended to reduce motor vehicle use. The SCS demonstrates that, if implemented, the region will achieve a nine percent per capita greenhouse gas (GHG) reduction in passenger vehicle emissions in 2020 and a 16 percent reduction in 2035. These reductions meet the targets for SACOG of seven percent and 16 percent per capita GHG reduction from 2005 for the years 2020 and 2035, respectively, established by California Air Resources Board (CARB). In June 2012, CARB issued an Acceptance of GHG Quantification Determination for the SACOG SCS, indicating that CARB concurs with SACOG’s quantification of GHG emission reductions from the final MTP/SCS and its determination that the SCS would achieve the 2020 and 2035 targets established by CARB.

3.13.2 Environmental Setting

The City of Sacramento’s transportation system is a combination of roadways, bike paths, walkable streets, and a complex public transportation system. Regional access to the Project site is provided primarily by Interstate 80 Business, also known as Capitol City Freeway and State Route 51. Freeway access to the Project site is provided by ramps at H Street and E Street.

Roadways

The City's roadway network consists of a combination of Federal interstates, a United States highway, California State highways, and city streets (arterial, collector, and local streets). According to the City of Sacramento 2035 General Plan EIR, approximately 86 percent of all city residents travel from home to work by automobile (City of Sacramento 2014).

The main streets surrounding the proposed Project site include the following:

- **McKinley Boulevard** is an east-west roadway that runs from an eastern terminus with Elvas Avenue, past McKinley Park, until it becomes E Street one block east of the Capital City Freeway. The eastern half of the roadway has speed humps installed for traffic calming, and bike lanes have been installed along the segment adjacent to McKinley Park. The posted speed limit is 25 miles per hour and on-street parking is permitted on both sides of McKinley Boulevard. The 2035 General Plan identifies McKinley Boulevard as a minor collector LOS D roadway.

- **33rd Street** runs from the Union Pacific Railroad tracks in the north to H Street in the south. 33rd Street has speed humps installed and serves as a designated bicycle route. 33rd Street narrows
considerably for the segment adjacent to McKinley Park and on-street parking is allowed next to McKinley Park on both sides of the roadway. Field observations indicate that this stretch of 33rd Street is fairly congested with parking vehicles and pedestrians. The 2035 General Plan identifies 33rd Street as a local street LOS D roadway.

- **H Street** is an east-west major collector roadway that runs from the American River to the east to Interstate 80 to the west. Next to McKinley Park H Street is a two-lane roadway with on-street parking on both sides of the roadway. The 2035 General Plan identifies H Street as a major collector LOS E roadway.

- **Alhambra Boulevard** is a north-south arterial roadway that runs from B Street in the north to 3rd Avenue in the south. Next to McKinley Park, Alhambra Boulevard is a two-lane facility with on-street parking on either side. Adjacent to McKinley Park the roadway has bicycle lanes on both sides of the street. The 2035 General Plan identifies Alhambra Boulevard as an arterial LOS D roadway.

- **Park Way** is an east-west roadway that runs from Santa Ynez Way in the east to 33rd street in the west for a total of approximately 0.17 feet in length. It is a two-lane roadway with parking on either side. This roadway parallels the Shephard Garden and Arts center in the northeaster portion of McKinley Park. The 2035 General Plan identifies Park Way as a local roadway.

Other major roadways in the immediate region surrounding McKinley Park can be seen in Figure 3.13-1 below. Additionally, the LOS Service Thresholds depicted in the 2035 General Plan are shown in Table 3.13-1 below.

**Bicycle and Pedestrian System**

Bicycle and pedestrian activity is high around McKinley Park (along McKinley Boulevard, H Street, 33rd Street, Alhambra Boulevard, and Park Way). Field observations in the neighborhood surrounding the park indicate that bicyclists and pedestrians co-exist alongside motor vehicle traffic during even the heaviest travel periods. The roads within the City of Sacramento are mainly designed to have adequate access and safety for motorists, bicyclists, and pedestrian users. There is also a heavily used walking and jogging pathway that circles McKinley Park and the Shephard Garden and Arts Center. Park visitors use this approximately one-mile long pathway regularly to walk or jog laps.

**Public Transit**

The Sacramento Regional Transit District (SRTD) provides public transit service for the proposed Project site and the surrounding area via transit route 34-McKinley, which follows Alhambra and McKinley Boulevards adjacent to McKinley Park. This transit route has stops along both Alhambra McKinley Boulevards then continues to either the Downtown Sacramento area or to California State University Sacramento, depending on the direction being traveled. The light rail system within the City of Sacramento comes from outside the City boundaries and converges towards the downtown area. The nearest light rail station to the proposed Project site is located towards the south on the corner of 30th and R Streets, approximately 0.83 miles south from the Park boundary.
## Table 3.13-1  Level of Service Thresholds for Roadway Segments

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<th>Operational Class</th>
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<th>ADT Level-of-Service Capacity Thresholds</th>
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<td>Arterial- Low Access Control</td>
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<td>Collector Street- Major</td>
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<tr>
<td></td>
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</tr>
<tr>
<td>Local Street</td>
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<td>3,000</td>
</tr>
</tbody>
</table>

Source: (City of Sacramento 2015a)
Source: (City of Sacramento 2015a)

**Figure 3.13-1 Central City Circulation Diagram**
3.13.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to transportation and traffic. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.

3.13.3.1 Methodology of Analysis

Using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.13.3.2 to determine whether potential utility and service systems impacts from the proposed Project on the baseline setting (Sections 3.13.1 and 3.13.2) would be significant. A potential impact would be significant if the proposed Project would:

- 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;

- 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;

- 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;

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

- Result in inadequate emergency access; or

- Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

3.13.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.
Impact TRANS-1

Potential to 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.

Impact TRANS-1 Analysis

Transportation plans that are applicable to the proposed Project include the City of Sacramento 2035 General Plan Mobility Element, the MTP/SCS, the City of Sacramento Bicycle Master Plan, and the City of Sacramento Pedestrian Master Plan. During construction, the proposed Project would generate construction traffic, including worker automobile and light truck trips, haul truck trips during excavation, and trucks delivering or removing materials during construction such as concrete or excavated dirt. The maximum construction traffic on any given day could consist of trips by up to 50-onsite workers and approximately 100-truck trips for delivering concrete or hauling away excavated dirt material. However, the average worker trips are anticipated to be closer to 10- to 20- workers/day and materials truck trips would be concentrated in short durations during excavation and concrete pouring phases of construction. The total maximum estimated daily trips from construction activities is anticipated to be approximately 150-vehicle trips or a maximum averaged over the 11 hour construction window (from seven am to six pm) approximately 14 additional vehicle trips per hour.

Although construction activities would introduce approximately 14 new roadway users per hour to nearby roadways during construction hours (from seven am to six pm), McKinley Park visitors that drive to the park during these same construction hours would likely decrease slightly during construction due to opting to recreate in other locations (as discussed in the Section 3.12 Recreation). If this decrease in recreational users were to occur, it would help offset the introduction of the maximum of 150-construction traffic trips per day in the vicinity of the proposed Project. However, while a slight decrease in park visitors may offset some construction traffic, and daily construction trips would be limited to minimal for the majority of the two year construction period, construction traffic would still likely pose a minor to moderate change to traffic conditions in the immediate proposed Project area during the concentrated phases of construction. Alhambra Boulevard, J Street, E Street, 33rd Street, and McKinley Boulevard would serve as the main access points for construction traffic from the freeway and would experience the majority of construction traffic impacts including any delays or increases in traffic congestion if they were to occur. To quantify the extent of potential impacts, peak evening hours would see increases of 24 trucks to the approximately 554 vehicles that currently use McKinley Boulevard during the peak evening hours (see Table 2.4-3 in Section 2.0, Project Description). As such, construction of the proposed Project would not substantially alter the existing traffic flows or LOS of the nearby roadways.

Park Way and 33rd Street may experience temporary partial closures from installation of Project features within the roadway, parking restrictions, or construction site access; however, residential access would be maintained throughout construction for all road closures as required by MM TRANS-1 Prepare and Implement a Traffic and Pedestrian Control Plan. Additionally, the City of Sacramento City Code 12.20.020 requires that a traffic control plan be implemented for any project that has the potential to
obstruct vehicle, bicycle, or pedestrian traffic. MM TRANS-1 and MM TRANS-2 Inform the Public and Emergency Service Agencies of Lane Closures and Detours would be implemented to ensure compliance with the City Code by incorporating a Traffic and Pedestrian Control Plan as well as informing the public of planned lane closures and detours that could occur because of the construction of the proposed Project. Informing the public and emergency services of lane closures and detours would ensure that residents, park visitors, and emergency personnel are able to plan for temporary closures or impacts to roadways surrounding the proposed Project area which would ensure that proper access would be maintained and there would be no conflicts with applicable plans, policies, or ordinances. Therefore, with the implementation of MM TRANS-1 and MM TRANS-2 construction of the proposed Project would be noticed and planned appropriately to ensure that no conflicts with applicable plans, ordinances, or policies related to transportation would occur.

Operation of the proposed Project would not impact the circulation system or the plans, policies, and ordinances facilitating future planning of the circulation system. The proposed Project would not generate substantial additional trips during the operations of the proposed Project. Maintenance vehicles would access the electrical control facility periodically. This would be similar to current maintenance activities that occur within McKinley Park and would not add any substantial trips.

Therefore, the potential for the proposed Project to conflict with applicable plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system during construction and normal operations would be considered less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-1, MM TRANS-2

**Impact TRANS-2** Potential to 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.

**Impact TRANS-2 Analysis**

As discussed in Impact TRANS-1, the maximum construction traffic on any given day could be trips by up to 50-on-site workers, plus approximately 100-truck trips for the delivery of concrete or hauling away excavated material, with a total estimated daily maximum 150-vehicle trips. Additional queuing could occur along 33rd Street and McKinley Boulevard. These trips and additional vehicles on the surrounding roadway could slightly increase traffic by placing new vehicles on roadways that provide access to the proposed Project site, with the highest levels of construction related traffic being expected during normal work hours from seven a.m. to six p.m. and during the excavation activities. However, the increase in traffic would not be significant because these additional vehicle trips are below the vehicle trip generation criteria set by the City of Sacramento 2035 General Plan (as shown in Table 3.13-1 of the Environmental Setting Section 3.13.2).
During evening peak flows, traffic on McKinley Boulevard would have 24 trucks added to the existing 554 vehicles. These additional vehicle trips are not anticipated to affect the LOS standards (Table 3.13-1 above) on these roadways or significantly increase local traffic congestion since, as described in Impact TRANS-1, the trips would be concentrated around the construction activities associated with excavation and concrete pouring. As discussed for Impact TRANS-1, construction vehicles would likely use 33rd Street and McKinley Boulevard/E Street to access Interstate Business 80 when transporting materials but may also use freeway access from J Street. MM TRANS-1 would establish a traffic control plan to coordinate and direct traffic controls in the least impactful way possible ensuring construction related traffic impacts remain at a less than significant level pursuant to this City code since controls to properly inform the public and controls construction traffic flows ensuring temporary construction impacts remain less than significant.

Operation of the proposed Project would not generate vehicle trips or traffic beyond the periodic maintenance and checking of the electrical control facility and cleaning. Therefore, the proposed Project would remain in compliance with local traffic congestion management, and the impact of the proposed Project would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-1

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**Impact TRANS-3**  
Potential to 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.

**Impact TRANS-3 Analysis**

The nearest airport relative to the proposed Project is the Sacramento Executive Airport which is approximately four miles south of McKinley Park. Since the proposed Project would not be constructed near an airport or within an applicable airport management plan, there would be no impact that would result in a change in air traffic patterns. Therefore, the proposed Project would have no potential to 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.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

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**Impact TRANS-4**  
Potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

**Impact TRANS-4 Analysis**

Construction access and staging would occur within the McKinley Park footprint and the roadways immediately adjacent to McKinley Park. The movement of construction vehicles, equipment, and materials to and from the Project site has the potential to temporarily increase the risk of slow moving vehicles or traffic hazards on the roads with access to the Project site. Risk would be the highest when

3.13.11
construction vehicles and equipment would have to potentially interact with general purpose vehicles, such as when entering public-right-of-way while exiting the Project site. This conflict from construction traffic interacting with general public traffic, has the potential to cause an impact to the local roadways in the Project area over the course of the two-year construction period. Project construction would require temporary closures of portions of the jogging path near the project site and access locations for safety purposes and to avoid conflicts with construction traffic and recreational park users. MM TRANS-1 would be required to design a site-specific traffic control plan that is meets City Code requirements to ensure potential conflicts and hazards are minimized to less than significant levels. The plan would identify expected Project related traffic and transportation impacts and provide notifications and traffic controls as necessary to reduce any potential safety risks. Therefore potential risks of the proposed Project introducing hazards or incompatible uses at Project site would be reduced to a less-than-significant level with mitigation. Additionally, the traffic control plan would ensure clear emergency ingress and egress is feasible during construction by maintaining resident access and providing notification the public and emergency services.

The Project would not cause transportation hazards during operation because once constructed, the proposed Project would be within the Park footprint and would not introduce traffic hazards due to design features or incompatible uses. Periodic maintenance would be required; however, this would not cause a significant hazard to the public since maintenance would generally involve use of City staff in road ready cars or trucks. Therefore, the proposed Project’s impact would be less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-1

**Impact TRANS-5 Potential to result in inadequate emergency access.**

Impact TRANS-5 Analysis

Emergency access could be interrupted by significant increases to traffic congestion resulting from the proposed Project. While a maximum of 150 construction related vehicle trips per day are expected during peak levels of construction, conditions that impact emergency access are not be expected to be significantly impacted because of the concentration of localized impacts to the area immediately surrounding the Project site, the availability of alternative access routes, and the fact that Project-generated daily worker trips and hauling trips are not anticipated to create significant levels of traffic or affect the LOS on these roadways. Additionally, MM TRANS-2 would help provide notification to emergency responders so that route adjustments and other planning changes could reasonably be implemented, if necessary, during the construction phase of the Project, reducing any potential delays caused by construction traffic to a less than significant level due to the availability of alternate routes and roadways surrounding the Project site. Further discussion of emergency access in and around the proposed Project site and compliance with the City’s 2012 Emergency Operating Procedures is included in Section 3.7, Impact HAZ-7.
Operation of the proposed Project would not affect emergency access to McKinley Park because the proposed Project would be within the Park footprint and most of the Project features would be underground. Therefore, the proposed Project would have a less than significant impact to emergency access and emergency responders along roadways during construction and operation with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-2

**Impact TRANS-6**  
Potential to conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

**Impact TRANS-6 Analysis**

The proposed Project would not conflict with adopted policies, plans or programs for public transportation through an increase in construction traffic in the Project area since the proposed Project is not expected to create significant amounts of local congestion as previously discussed, so the performance of public transportation and commuting times would not be substantially affected. Increased traffic could potentially increase transit times for pedestrians and commuters who use the local bussing services and who bike or walk to work; however, impacts are localized to the immediate vicinity of McKinley Park which allows for many alternative paths for users, as well as the fact that the implementation of MM TRANS-1 would further reduce any potential impacts to public transit by allowing for adequate access around the construction activities. Therefore, the potential for the proposed Project to conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities is considered less than significant.

Additionally, the proposed Project is not expected to substantially interfere with current bicycle paths, sidewalks for pedestrians, or parking facilities. Construction activity would temporarily disrupt pedestrian travel and parking along the 33rd Street, McKinley Boulevard, Park Way, and Alhambra Boulevard however, with the implementation of MM TRANS-1, bicycle and pedestrian pathways would be re-routed around the construction and partial access to the McKinley Park would be maintained. Additionally, the parking facilities surrounding McKinley Park would be intermittently restricted, specifically along 33rd Street, McKinley Boulevard, and Park Way, but would not be substantially affected from construction related traffic since they would be temporary and street parking throughout the neighborhood is common and commonly restricted by other uses such as street cleanings or construction and maintenance. Additionally, the construction of the proposed Project would be consistent with the goals and policies related to public transit, bicycle, parking, and pedestrian facilities of the City of Sacramento 2035 General Plan, MTP/SCS, the City of Sacramento Bicycle Master Plan, and the City of Sacramento Pedestrian Master Plan.

Operation of the proposed Project would have a less than significant impact on the pathways in or around McKinley Park. Once constructed, the proposed Project would be mostly underground except for the electrical control facility and the only operational impact could potentially be from maintenance workers.
periodically conducting system evaluations or maintenance which would not significantly impact the existing bicycle or pedestrian facilities in the area. Therefore, the potential for the proposed Project to conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities during construction and operations would be considered less than significant with mitigation incorporated.

**Level of Significance:** Less than Significant with Mitigation

**Mitigation Measure:** MM TRANS-1

### 3.13.4 Mitigation Measures

#### Mitigation Measure TRANS-1: Prepare and Implement Traffic and Pedestrian Control Plan

The selected construction contractor and/or the City of Sacramento shall prepare and implement a traffic control plan to the satisfaction of City Traffic Engineer. The plan shall ensure that acceptable operating conditions on local roadways, freeway facilities, and bicycle and pedestrian facilities are maintained. At a minimum, the plan shall include:

- Description of trucks including: number and size of trucks per day, expected arrival/departure times, truck circulation patterns.
- Description of staging area including: location, maximum number of trucks simultaneously permitted in staging area, use of traffic control personnel, specific signage.
- Description of street closures and/or bicycle and pedestrian facility closures including: duration, advance warning and posted signage, safe and efficient access routes for emergency vehicles, and use of manual traffic control.
- Description of driveway access plan including: provisions for safe vehicular, pedestrian, and bicycle travel, minimum distance from any open trench, special signage, and maintained residential vehicle accesses.
- The traffic control plan shall contain detailed measures to ensure acceptable levels of traffic flow.

Close coordination with the City through the Traffic Control Plan process shall reduce the significance levels to less than significant.

#### Mitigation Measure TRANS-2: Inform the Public and Emergency Service Agencies of Lane Closures and Detours

The City shall inform the public, neighboring schools, and emergency services agencies such as the SFP and the SPD of scheduled lane closures and/or detours through public outreach such as public meetings and postings in the local newspapers. Proper signage shall be used to direct traffic as identified through the traffic control plan. Unanticipated lane closures and detours may also occur as a result of the proposed Project. These closures shall be minimized to the maximum extent feasible and both the public and the emergency services agencies shall be informed as soon as possible.
3.14 UTILITIES AND SERVICE SYSTEMS

This section describes the environmental and regulatory setting for utilities and services systems. It also describes impacts on utilities and services systems that would result from implementation of the proposed Project and mitigation for significant impacts, where feasible.

3.14.1 Regulatory Framework

3.14.1.1 Federal

Clean Water Act

The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), otherwise known as the Clean Water Act (CWA), sets forth national goals that waters shall be “fishable, swimmable” waters (CWA Section 101 (a)(2)). To enforce the goals of the CWA, the United States Environmental Protection Agency (USEPA) established the National Pollutant Discharge Elimination System (NPDES) program. NPDES is a national program for regulating and administering permits for discharges to receiving waters, including non-point sources. Under Section 1251 (b) of the CWA, Congress and the USEPA must recognize and preserve the primary responsibilities and rights of states concerning the reduction of pollution in water resources.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.

The SDWA authorizes the USEPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary standards. The 1996 amendments to SDWA require that USEPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for USEPA, also encourage attainment of secondary standards (nuisance-related).

National Pollution Discharge Elimination System Permit

Discharge of treated wastewater to surface water(s) of the United States, including wetlands, require a NPDES permit. In California, the Regional Water Quality Control Board (RWQCB) administer the issuance of these federal permits. Obtaining an NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Whether or not a permit may be issued, the conditions of a permit are subject to many factors such as basin plan water quality objectives, impaired water body status of the receiving water, historical flow rates of the receiving water, effluent quality and flow, the air quality State Implementation Plan (SIP), the California Toxics Rule, and established total maximum daily loading rates for various pollutants. These factors are highly specific to the potential discharge point. Obtaining an NPDES permit is generally considered difficult in inland areas and may not be possible in sensitive areas.
U.S. Environmental Protection Agency’s National Combined Sewer Overflow Control Policy

The Combined Sewer Overflow Control Policy establishes a consistent national approach for controlling discharges from the Combined Sewer Overflow to the nation’s waters through the NPDES permit program. The Combined Sewer Overflow Control Policy mandates that permittees with Combined Sewer Overflow should submit appropriate documentation demonstrating implementation of the nine minimum controls, which consist of:

1. Proper operation and regular maintenance programs for the sewer system and the Combined Sewer Overflows;
2. Maximum use of the collection system for storage;
3. Review and modification of pretreatment requirements to assure Combined Sewer Overflow impacts are minimized;
4. Maximization of flow to the publicly owned treatment works for treatment;
5. Prohibition of Combined Sewer Overflows during dry weather;
6. Control of solid and floatable materials in Combined Sewer Overflows;
7. Pollution prevention;
8. Public notification to ensure that the public receives adequate notification of Combined Sewer Overflow occurrences and Combined Sewer Overflow impacts; and
9. Monitoring to effectively characterize Combined Sewer Overflow impacts and the efficacy of Combined Sewer Overflow controls.

3.14.1.2 State

Porter-Cologne Water Quality Act

The State of California established the State Water Resources Control Board (SWRCB), which oversees the nine RWQCBs, through the Porter-Cologne Water Quality Control Act. Through the enforcement of the Porter Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, the RWQCB, is authorized to prescribe Waste Discharge Requirements (WDR) for the discharge of waste, which may impact the waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by Porter-Cologne to protect water quality.

The SWRCB issues both General Construction Permits and individual permits under the auspices of the federal NPDES program. Projects disturbing more than one acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the State NPDES General...
Construction Permit (State General Permit) (Adopted Order 2009-0009-DWQ (As amended by 2010-0014-DWQ and 2012-0006-DWQ)) for discharges of stormwater associated with construction activity. Construction activities that are subject to this General Permit includes clearing, grading, disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre of total land area. The project proponent must implement control measures that are consistent with the State General Permit. A Stormwater Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the General Permit. A SWPPP describes Best Management Practices (BMP) the discharger would use to protect stormwater runoff and reduce potential impacts to surface water quality through the construction period. The SWPPP must contain the following: a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (Water Code Sections 10610–10656). The UWMPA requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000-acre foot per year (AFY) shall prepare and adopt a UWMPA. The UWMPA states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The UWMPA also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

General Waste Discharge Requirements for Sanitary Sewer Systems

The General WDRs for Sanitary Sewer Systems were adopted by the SWRCB in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows. The WDRs require that the local jurisdiction approve the SSMP. The local jurisdiction for the City of Sacramento falls under the Central Valley Regional Water Quality Control Board (CVRWQCB) and the Sacramento City Council approved the City’s SSMP on January 2014.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25-percent of all solid waste from landfill facilities by January 1, 1995, and 50-percent by January 1, 2000. Solid waste plans are required to explain how each city’s AB 939 plan will be integrated within the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to $10,000–per-day fines.
3.14.1.3 Local

City of Sacramento Design Standards

Section 13 of the City's Design Standards sets forth requirements regarding the design and operation of water distribution facilities. Those requirements include standards for pipe design, fire hydrants, and specific requirements for residential, commercial, and industrial water service.

City of Sacramento Urban Water Management Plan

The City developed and adopted an Urban Water Management Plan (UWMP) in November 2006 to ensure the conservation and efficient use of available water supplies and to ensure an appropriate level of reliability in its water service sufficient to meet the needs of its customers. The City adopted an updated UWMP in 2015 based on its recently adopted 2035 General Plan. The State Department of Water Resources approved the City’s 2015 UWMP in June 2016 (City of Sacramento UWMP 2015).

City of Sacramento Department of Utilities

The City of Sacramento regulates the discharge of groundwater dewatering effluent to the City’s sewer system. The City’s Department of Utilities (DOU) Engineering Services Policy No. 0001 (Resolution No. 92-439) requires approval of a Memorandum of Understanding (MOU) for long term (greater than one week) groundwater dewatering discharges to the sewer. The MOU must cover proposed dewatering details such as flow rate, system design, and contaminant monitoring plan. Discharges to the sewer must meet the Regional San and RWQCB-approved levels. Dischargers to the sewer must obtain a Regional San discharge permit.

Sacramento City Code

Chapter 13.08 of the Sacramento City Code sets requirements for permitted discharges to the sewer service system. There are provisions for charges and fees for customers, pretreatment, private sewer or storm drain lines, structures overlying public utilities, swimming pools and fish ponds, air conditioning and refrigeration devices, interruptions and discontinuation of service, inspections, and construction of sewer and storm drain facilities.

Combined Sewer System Development Fee

The DOU adopted the Combined Sewer Development Fee to finance capital improvement projects that mitigate impacts to the Combined Sewer System. This ordinance mandates that all projects within the Combined Sewer System area will be required to pay a fee for sanitary sewer flows above the existing flows from the project site. The fee amount is based on the amount of equivalent single-family dwelling (ESD) units that the project generates; $119.45 per ESD for the first 25 ESD, plus $2,980.86 per ESD in excess of 25 (City of Sacramento 2012b).

Sacramento Regional County Sanitation District

In 2004, the Sacramento Regional County Sanitation District (Regional San) passed the Sewer Impact Fee Ordinance requiring fees to be paid to the Regional San for any users connecting to or expanding
sewer collection systems, to mitigate the impact on the Regional San Wastewater Treatment Plant (Regional San WWTP) and conveyance systems.

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) is a joint powers authority of the County and the cities of Sacramento and Citrus Heights. The SWA Board of Directors consists of elected officials from the County and the member cities. The SWA regulates commercial solid waste collection by franchised haulers through SWA ordinances. Among other things, SWA ordinances require franchised haulers to achieve 30 percent recycling and to offer recycling programs to multifamily complexes.

Sacramento Municipal Code

Chapter 17.616, Recycling and Solid Waste Disposal Regulations, of the Sacramento City Code provides regulations concerning recycling and solid waste disposal. Policies within the Code include guidelines regarding the location, size, and design features of recycling and trash enclosures, which are necessary to lengthen the lifespan of landfills and meet state mandated goals for waste reduction.

Sacramento 2035 General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities (U) Elements and Environmental Resources (ER) Elements are applicable to utilities and service systems.

Goal U 1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services throughout the city.

Policy U 1.1.1 Provision of Adequate Utilities. The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the city that do not currently receive these City services upon funding and construction of necessary infrastructure.

Policy U 1.1.2 Citywide Level of Service Standards. The City shall establish and maintain service standards [Levels of Service (LOS)] for water, wastewater, stormwater drainage, and solid waste services.

Policy U 1.1.3 Sustainable Facilities and Services. The City shall continue to provide sustainable utility services and infrastructure in a cost-efficient manner.

Policy U 1.1.5 Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy U 1.1.6 Infrastructure Finance. The City shall develop and implement a financing strategy and assess fees to construct needed water, wastewater, stormwater drainage, and solid waste facilities to maintain established service levels and to mitigate development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new
development). The City shall also assist developers in identifying funding mechanisms to cover the cost of providing utility services in infill areas.

**Policy U 1.1.9 Utilities Location.** The City shall limit, to the extent financially and technically feasible, the construction of major infrastructure facilities in areas better suited for infill and urban development.

**Policy U 1.1.10 Safe, Attractive, and Compatible Utility Design.** The City shall ensure that public utility facilities are designed to be safe, aesthetically pleasing, and compatible with adjacent uses.

**Policy U 1.1.11 Underground Utilities.** The City shall require undergrounding of all new publicly-owned utility lines, encourage undergrounding of all privately-owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines.

**Goal U 3.1 Adequate and Reliable Sewer and Wastewater Facilities.** Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

**Policy U 3.1.1 Sufficient Service.** The City shall provide sufficient wastewater conveyance, storage, and pumping capacity for peak sanitary sewer flows and infiltration.

**Policy U 3.1.2 New Developing Areas.** The City shall ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.

**Policy U 3.1.3 Stormwater Infiltration Reduction.** The City shall develop design standards that reduce infiltration into new City-maintained sewer pipes.

**Policy U 3.1.4 Combined Sewer System Rehabilitation and Improvements.** In keeping with its Combined Sewer System (CSS) Long Term Control Plan (LTCP), the City shall continue to rehabilitate the CSS to decrease flooding, CSS outflows and Combined System Overflow (CSO). Through these improvements and new development requirements the City shall also insure that development in the CSS does not result in increased flooding, CSS outflows or CSOs.

**Policy U 3.1.5 Methane Recovery.** The City shall support the efforts of the Sacramento Regional County Sanitation District (SRCSD) to develop and maintain methane recovery facilities and coordinate efforts to evaluate methane emissions and potential capture at primary and secondary clarifiers and force system mains; maintain methane recovery systems and digester gas combustion systems at wastewater treatment plants; develop waste-to-energy projects at 50 percent of wastewater treatment plants; and evaluate potential for biofuel production at the Sacramento Regional Wastewater Treatment Plant.

**Goal U 4.1 Adequate Stormwater Drainage.** Provide adequate stormwater drainage facilities and services that are environmentally sensitive, accommodate growth, and protect residents and property.

**Policy 4.1.1 Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.

**Policy 4.1.2 Master Planning.** The City shall implement a master plan program to:
• Identify facilities needed to prevent 10-year event street flooding and 100-year event structure flooding

• Ensure that public facilities and infrastructure are designed pursuant to approved basin master plans

• Ensure that adequate land area and any other elements are provided for facilities subject to incremental sizing (e.g., detention basins and pump stations)

• Consider the use of “green infrastructure” and Low Impact Development (LID).

**Policy U 4.1.3 Regional Stormwater Facilities.** The City shall coordinate efforts with Sacramento County and other agencies in the development of regional stormwater facilities.

**Policy U 1.1.4 Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City’s National Pollutant Discharge Elimination System (NPDES) permit.

**Policy U 4.1.5 Green Stormwater Infrastructure.** The City shall encourage “green infrastructure” design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).

**Goal U 5.1 Solid Waste Facilities.** Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

**Policy U 5.1.8 Diversion of Waste.** The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

**Policy U 5.1.15 Recycling and Reuse of Construction Wastes.** The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting 85 percent to a certified recycling processor.

**Goal ER 1.1 Water Quality Protection.** Protect local watersheds, water bodies and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers and their shorelines.

**Policy ER 1.1.1 Conservation of Open Space Areas.** The City shall conserve and where feasible create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals for the purpose of protecting water resources in the city’s watershed, creeks, and the Sacramento and American rivers.

**Policy ER 1.1.2 Regional Planning.** The City shall continue to work with local, State, and Federal agencies and private watershed organizations to improve water quality.
**Policy ER 1.1.3 Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through stormwater protection measures consistent with the City’s NPDES Permit.

**Policy ER 1.1.4 New Development.** The City shall require new development to protect the quality of water bodies and natural drainage systems through site design (e.g., cluster development), source controls, stormwater treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the City’s NPDES Permit.

**Policy ER 1.1.5 Limit Stormwater Peak Flows.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.

**Policy ER 1.1.6 Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.

**Policy ER 1.1.7 Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City’s erosion and sediment control ordinance and stormwater management and discharge control ordinance.

**Policy ER 1.1.8 Clean Watershed.** The City shall continue ongoing Sacramento and American River source water protection efforts (e.g., Keep Our Waters Clean), based on watershed sanitary survey recommendations.

### 3.14.2 Environmental Setting

**Wastewater**

The DOU currently operates a complex combined sewer stormwater system which serves over 200,000 residents in downtown Sacramento, River Park, Land Park, Curtis Park, Oak Park, and East Sacramento neighborhoods. The combined sewer system conveys stormwater runoff and wastewater within the same pipe network to the wastewater treatment facilities for treatment and safe discharge. Construction of the City’s sewage collection system started well over 100-years ago in the downtown area. In 1954, the City completed construction of a primary treatment plant (the Combined Wastewater Treatment Plant or CWWTP) which treated the combined flows. By the mid-1970s construction of the regional wastewater treatment system began in response to the development of the regional wastewater plan.

The City owns and operates the combined sewer system, which consists of both pipelines and facilities. The facilities include the City’s CWWTP, pumping stations, Pioneer Reservoir, and in-line and off-line storage facilities. The collection system consists of trunks, interceptors, reliefs, force mains, laterals, and other pipelines (See the Section 1.0, Introduction Figure 1.1-1 Project Vicinity and Figure 1.1-2 City of Sacramento Sewer System Overview).
The combined sewer system drains from east to west to two pump stations: Pump Station 1/1A and Pump Station 2/2A. The two pump stations pump flows to treatment facilities. Based on the City’s contract with Regional San, the City can convey a maximum of 60-million gallons per day (mgd) to the Regional San WWTP where it is treated and discharged to the Sacramento River. When the flow rate exceeds 60-mgd, the excess flows are pumped to the City’s CWWTP and Pioneer Reservoir to provide treatment, storage, and disinfection for an additional 380-mgd flow.

Water

Municipal water supplies are provided primarily by the Sacramento and American Rivers and are managed through the City’s DOU. The Fairbairn Water Treatment Plant intakes and treats the drinking water supplies along the American River and the Sacramento River Water Treatment Plant intakes and treats the drinking water supplies along the Sacramento River.

Solid Waste

The proposed Project is within the service boundaries of the City of Sacramento Recycling and Solid Waste Division. The Recycling and Solid Waste Division provides garbage, recycling, yard waste collection, and street sweeping to more than 124,000 residential customers in the City of Sacramento. The Sacramento SWA was formed in 1992 to assume the responsibilities for the solid waste, recycling, and disposal needs in the Sacramento area. The SWA regulates commercial solid waste collection by franchised haulers through ordinances. The Sacramento County Waste Management and Recycling Division provide staffing for the SWA.

Most of the refuse collected by the City is then transported to the Sacramento Recycling and Transfer Station and, ultimately, to the Lockwood Landfill in Sparks, Nevada. The Sacramento Recycling and Transfer Station is limited to accepting 2,500 tons of solid waste per day, under its Solid Waste Facilities Permit ( Permit No. 34-AA-0195). The transfer station currently accepts approximately 1,700 tons per day from the City. The Lockwood Landfill is owned and operated by a private firm, Waste Management Inc., and is the primary location for the disposal of waste by the City. The Lockwood Landfill currently does not have maximum daily disposal limits however, it has a remaining capacity of approximately 32.5 million tons, which is currently expected to be enough capacity to remain open until the year 2035. The Lockwood Landfill is planned for an expansion that would increase the landfill’s capacity enough to continue operation for at least the next 100 years in order to accommodate planned future growth (Waste Management 2011).

3.14.3 Environmental Impacts

This section analyzes the proposed Project’s potential to result in significant impacts to utility and service systems. When an impact is determined to be significant, mitigation measures were identified that would reduce or avoid that impact.
3.14.3.1 Methodology for Analysis

Using the CEQA Guidelines’ Appendix G Environmental Checklist for guidance the following thresholds of significance for evaluating potential impacts were established. These thresholds are evaluated in Section 3.14.3.2 to determine whether potential utility and service systems impacts from the proposed Project on the baseline setting (Sections 3.14.1 and 3.14.2) would be significant. A potential impact would be significant if the proposed Project would:

- Exceed wastewater treatment requirements of the applicable RWQCB;
- 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;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or identify if new or expanded entitlements would be needed;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments;
- Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs;
- Comply with federal, state, and local statutes and regulations related to solid waste.

3.14.3.2 Project Impact Analysis

This section discusses potential impacts associated with the proposed Project and provides mitigation measures where necessary.

<table>
<thead>
<tr>
<th>Impact UTL-1</th>
<th>Potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.</th>
</tr>
</thead>
</table>

Impact UTL-1 Analysis

The proposed Project does not involve the generation of wastewater or have the potential to exceed wastewater treatment requirements. The proposed Project involves adding storage to the existing combined sewer system but would not exceed the wastewater treatment requirements of the CVRWQCB. The combined sewer system would continue to operate as it currently does with combined sewage being treated at the City's CWWTP or at the Regional San WWTP, of which both plants are in compliance with their WDRs and according the City of Sacramento 2035 General Plan, the current permitted capacity is expected to be sufficient for at least 40 more years (City of Sacramento 2015a). Since the proposed Project would not alter the composition of the combined sewage and since the combined sewage would
continue to be treated to all applicable CVRWQCB standards required by the City and the County's waste discharge requirements, the proposed Project would have no potential to cause exceedances of these requirements. As such, no impact would occur.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

<table>
<thead>
<tr>
<th>Impact UTL-2</th>
<th>Potential to 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.</th>
</tr>
</thead>
</table>

**Impact UTL-2 Analysis**

The proposed Project is designed to accommodate storm surges within the combined sewer system providing additional storage capacity, however, it would not require or result in the need for new or expanded water or wastewater treatment facilities. Since the proposed Project does not include construction of new housing or other uses that would require additional connections to water or wastewater systems there is no potential for the proposed Project to require construction or expansion of facilities. As such, no impact would occur.

**Level of Significance:** No Impact

**Mitigation Measure:** None Required

<table>
<thead>
<tr>
<th>Impact UTL-3</th>
<th>Potential to require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.</th>
</tr>
</thead>
</table>

**Impact UTL-3 Analysis**

The proposed Project is designed to accommodate storm surges and prevent flooding within the existing combined sewage system which would be considered an expansion of existing stormwater drainage facilities. However, as evaluated throughout Chapter 3.0 of this document, the proposed Project does not have the potential to cause significant environmental effects. Therefore, the construction of expanded combined sewage storage facility would not have the potential to cause unmitigated significant environmental effects and the proposed impact is considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required
Impact UTL-4

Potential to have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact UTL-4 Analysis

Construction of the pipelines and wastewater treatment facilities modification would require some water supply for dust control, clean-up, soil compaction and hydraulic testing of the facility. Construction activities, such as dust control, would require approximately 100,000 gallons of water over the entire construction period. Water collected from the dewatering activities, if tested for contaminants and if necessary, treated, may be used for some of the dust control and other construction related water needs.

Once construction of the proposed Project is complete, testing of the facility would be required to check for leaks and make sure the facility is working properly. This hydraulic testing would require approximately 7.5 million gallons of water to fill the facility and would be followed by a 7-day leak test to determine if there are any leaks present. If leaks are present, the facility would need to be drained, fixed, and filled again to ensure the proposed Project is structurally secure. Water supplies that may be used for this testing could include a combination of sources from the City's municipal water supply. Currently these sources would have adequate water supplies needed for the construction and testing of the proposed Project. Therefore, the impact from construction and testing of the proposed Project would be considered less than significant.

Operation of the proposed Project may require some additional water supplies for periodic cleaning and maintenance of the facility. These cleanings would be on an as needed basis, depending of the frequency the proposed Project would be used. High pressure hoses may be needed during these cleanings to remove grease, silt, and other debris. The City's water supplies would be adequate to serve these periodic cleanings and therefore, the impact from operation of the proposed Project would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact UTL-5

Potential to result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Impact UTL-5 Analysis

Regional San’s WWTP and the City's CWWTP currently serve the Combined Sewer System within the City and would continue to operate as they currently do with a permitted capacity that is expected to be sufficient for 40 more years (City of Sacramento 2015a). The proposed Project would not permanently increase the capacity at Regional San’s WWTP or the City's CWWTP beyond the current conditions and would therefore, be in compliance with the exiting permitted capacity and result in a less than significant impact.
Construction activities would cause a temporary increase in wastewater generation from pumping of groundwater during construction and during the hydraulic testing phase. The wastewater generated from the dewatering activities would be tested and treated, if necessary, and may be used for other construction activities such as dust control. Wastewater generated by the hydraulic testing would be transported to the Regional San WWTP or the City’s CWWTP once testing is complete. This wastewater would be temporary and would not increase Regional San’s WWTP or the City’s CWWTP service capacity beyond what has been currently permitted. Therefore, the impact from construction activities would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact UTL-6 Potential to be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.

Impact UTL-6 Analysis

Construction activities associated with the proposed Project would result in a temporary increase in solid waste, such as pavement removal, excess or unsuitable spoils, excess concrete, and excess excavated materials. This waste would be accumulated over the duration of the proposed Project and periodically hauled off site, thus not impacting the landfill all at once. The Sacramento Recycling and Transfer Station is limited to accepting 2,500 tons of solid waste per day and the City currently transports approximately 1,700 tons per day to this Transfer Station. That leaves approximately 800 tons of solid waste capacity per day at this Transfer Station (Waste Management 2011). The proposed Project is not anticipated to produce a large amount of solid waste. The excavated material from the proposed Project is expected to be the largest source of material, however storage for this material is expected to be located at the downtown Railyards site and would not impact landfills. Therefore, the impact would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

Impact UTL-7 Potential to comply with federal, state, and local statutes and regulations related to solid waste.

Impact UTL-7 Analysis

The City of Sacramento is currently in compliance with the State of California 50 percent waste diversion goal. The additional goals of the City of Sacramento regarding waste reduction include 75 percent waste diversion by 2020 and zero waste communitywide by 2040. Specific guidelines, such as requiring the recycling of construction and demolition debris, are being implemented in the City of Sacramento to help reach these goals.
The proposed Project would be in compliance with both the state and local regulations regarding waste from construction. Construction waste is expected to be limited and temporary in nature and would not conflict with any of the applicable goals and regulations. Therefore, the impact would be considered less than significant.

**Level of Significance:** Less than Significant

**Mitigation Measure:** None Required

### 3.14.4 Mitigation Measures

No mitigation required.
This chapter describes alternatives to the proposed Project and compares the environmental impacts of those alternatives. This chapter also describes alternatives that were considered but rejected for further consideration.

The principles used to guide selection of the alternatives analyzed in this Environmental Impact Report (EIR) are provided by section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines, which specifies that an EIR must do all of the following:

- Describe a reasonable range of potentially feasible alternatives to the project that could attain most of the basic objectives of the project
- Consider alternatives that could reduce or eliminate any significant environmental impacts of the proposed project, including alternatives that may be costlier or could otherwise impede the project’s objectives
- Evaluate the comparative merits of the alternatives

The focus and definition of the alternatives are governed by the “rule of reason,” in accordance with section 15126.6(f) of the CEQA Guidelines. That is, the range of alternatives presented in this Draft EIR must permit a reasoned choice by the City of Sacramento (City). The CEQA Guidelines require that an EIR evaluate at least one “No-Project Alternative,” evaluate a reasonable range of alternatives to the Project, identify alternatives that were considered during the scoping process but were eliminated from detailed consideration, and identify the “environmentally superior alternative.”

The evaluation of alternatives is conducted in less detail than for the proposed Project. Consistent with section 15126.6(d) of the CEQA Guidelines, the information provided in this Draft EIR about each alternative is sufficient to allow for a meaningful evaluation, analysis, and comparison of the alternatives with the proposed Project.

**4.1 ALTERNATIVES CONSIDERED AND SCREENING CRITERIA**

This section describes the development of a reasonable range of alternatives to the proposed Project, the method used to screen the alternatives, and the alternatives considered but eliminated from detailed consideration in this document.

**4.1.1 Development of Reasonable Range of Alternatives**

CEQA requires that an EIR describe and evaluate a range of reasonable alternatives to a project or to the location of a project that would feasibly attain most of the basic project objectives and avoid or substantially lessen significant project impacts (CEQA Guidelines section 15126.6). The alternatives to the proposed Project considered in this Draft EIR were developed based on information gathered during the development of the proposed Project and during the EIR scoping process.
In developing the proposed Project, the City has considered a range of potential actions that could meet the project objectives. Comments received during scoping were considered. See Appendix A, Scoping Report.

Comments relating to alternatives to the proposed Project included the following:

- Encourage complete analysis of alternatives
- Suggest putting the offline storage facility in the undeveloped location or next to McKinley Village
- Suggest looking at available property at Sutter Memorial Hospital

### 4.1.2 Methods Used to Screen Alternatives

Potential alternatives were screened based on their ability to feasibly attain most of the basic Project objectives feasibility and reduce or eliminate any significant environmental impacts of the proposed Project.

- **Meeting Project Objectives** – The Project objectives are listed in Section 2.2.2 of the Project Description. The CEQA Guidelines state that alternatives must feasibly attain most of the basic objectives of the project (CEQA Guidelines section 15126.6). Alternatives that did not meet the majority of the objectives were screened out and not carried forward for further evaluation in the EIR.

- **Feasibility** – Alternatives that are not "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors," (per Public Resource Code Section 21061.1), were not carried forward for further evaluation in the EIR.

- **Avoiding or lessening any potentially adverse environmental effect of the Proposed Project** – Consistent with the CEQA Guidelines (section 15126.6), alternatives should avoid or substantially lessen one or more of the significant environmental effects of the proposed Project. Alternatives that would not lessen or avoid a potentially significant environmental impact, were not carried forward for detailed evaluation in the EIR.

Section 4.1.3 describes the alternatives considered but eliminated from further evaluation. Section 4.2 describes the alternatives retained for further evaluation.

### 4.1.3 Alternatives Considered but Rejected for Further Consideration

The alternatives described below were rejected for further consideration and analysis because they failed to meet most of the basic project objectives (see Section 2.2.2), were determined to be infeasible, and/or would not avoid or substantially lessen significant environmental impacts. Additional information on the alternative selection process for the City combined sewer system include the City Combined Sewer Rehabilitation and Improvement Plan EIR (City of Sacramento 1997) and the Combined Sewer System Improvement Plan (CSSIP) Update (City of Sacramento 2015).
4.1.3.1 Separate Sewer and Stormwater Systems

This alternative would include the design, funding and construction of a new sanitary sewer and storm water system in the City’s Combined Sewer System Service Area (CSSSA). The City, in conjunction with HDR Engineering, conducted numerous studies and evaluated this alternative in the 1990’s. Based on the findings, the City decided that separating was not feasible for four primary reasons: (1) the design and construction of such a system would require funding far beyond the levels that are supported by the existing sewer rates, and it would require a new agreement with regulatory authorities; (2) construction of a new system would require several decades of construction in the City (including streets in East Sacramento) and would have substantial construction impacts (e.g., construction noise and vibration, traffic and transportation, air quality); (3) the disposal of existing infrastructure that are in functioning order, and energy devoted to the construction project could be viewed as wasteful uses of energy and resources; and (4) storm drainage would no longer be treated and would result in an adverse water quality impact to receiving waters.

The City prepared the Combined Sewer System Improvement Plan (CSSIP) to enhance the combined sewer system in lieu of separation. The Central Valley Regional Water Quality Control Board (CVRWQCB) reviewed and approved the CSSIP in 1995. For these reasons, The City has concluded that this alternative is not feasible and it is not evaluated further in the EIR.

4.1.3.2 Offline Storage Facility at McKinley Village

Comments received during the EIR scoping process raised the possibility that a vault similar to that proposed in the Project could be located at the McKinley Village site. The McKinley Village project, now under construction and occupancy, is upstream of the proposed vault site.

This alternative would include a vault system McKinley Village residential development located on an approximately 49-acre site within the East Sacramento Community Plan area within the City. This alternative would also require a tunnel along Alhambra Boulevard in East Sacramento, under the Union Pacific Railroad, to convey the combined sewage overflow to McKinley Village and to provide the required storage volume. Tunnel access pits would be required in two or three locations in Alhambra Boulevard to install the tunnel and construct overflow structures that would divert flow to the storage system in McKinley Village.

Concerns were expressed during the scoping meeting that the McKinley Village project would result in increased, and unconsidered, impacts on flooding downstream. The City evaluated the McKinley Village project in that regard, and concluded that, with appropriate design, the project would not have an adverse effect downstream. The Draft EIR for the project included the following discussion:

As discussed in the Preliminary Sewer Plan for the project (Wood Rodgers 2013a), the sewer system would also require a sewage detention tank. During high flows, excess sewer would be detained on site in a 6,300 cubic feet (minimum) subsurface detention tank (Wood Rodgers 2013a) located in the western portion of the site.
The sewage pump station and sewage detention tank would be located underground and would be located in the same general area as the stormwater detention ponds and stormwater pump station. All sewage infrastructure would be kept separate from the stormwater drainage systems. During peak wet weather flows when the City's CSS is at capacity, the sewage would not be pumped via the force main to the 42-inch pipe on Alhambra Boulevard. Instead, excess flows would be detained on site in the sewage detention tank. Assuming the pipes are flowing half full, there is an additional volume of approximately 30,000 gallons of available storage within the pipes and manholes that could be utilized during large storm events. Before the ultimate facilities can be constructed, the City requires a detailed pump station, force main, and detention tank design report be provided. (City of Sacramento 2013, Wood Rogers 2013a)

The City's Department of Utilities (DOU) has considered siting a storage facility in the proposed McKinley Village development, but it does not meet the Project objectives. First, this alternative would not meet the objective of alleviating flooding because the required vault volume cannot be placed in McKinley Village. In addition, a large diameter pipe would be needed to convey the overflow from the McKinley Boulevard sewer, the H Street sewer and the O Street sewer to McKinley Village. The sewer conveying the combined overflow to the offline storage facility could be oversized to provide the additional storage needed to prevent the outflows and flooding during the design storm. However, the pipeline would need to be approximately 8,000-feet long and eight- to ten-feet in diameter. Due to the size of the existing right-of-way and the number of existing utilities, the streets of East Sacramento cannot currently accommodate a pipe of this size. The large diameter pipe could be installed by tunneling, but this would still require construction access shafts in Alhambra Boulevard that would also require existing utility relocation.

Further, this alternative would have greater localized construction impacts (e.g., construction noise and vibration) since it would affect more sensitive receptors, would require more construction in roadways, and would have greater construction impacts to traffic. Transportation and air quality impacts due to the increased construction impacts associated with installing a large pipeline in addition to the storage facility in East Sacramento.

For these reasons, this alternative was not feasible and not further evaluated in the EIR.

4.1.3.3 Offline Linear Storage

One alternative to an underground vault involves installation of a pipeline that is larger in diameter than pipe required simply to convey sewer and stormwater flows. The pipeline capacity serves as storage for flows that would otherwise overwhelm the system. This approach has been undertaken by the City in isolated cases, usually when the pipeline is being installed in areas that are not already developed with urban uses.

Offline linear storage facilities would be constructed underground in the City's right-of-way. The facilities would be constructed as new pipes of larger capacity with a controlled release to detain flows until the downstream system has capacity to receive the flows. Offline linear storage facilities connect to the primary conveyance system and are constructed at an elevation slightly higher than peak dry weather depths to avoid detaining any dry weather flows in the storage.
Factors such as depth of cover requirements, existing utilities, right-of-way width, and system elevations (to which linear storage facilities must connect) are factored into the offline linear storage configurations for this alternative. The evaluation of this potential approach must proceed on a case-by-case basis.

To meet the required storage volume needed in this case, the City estimates this alternative would require a large 10-foot diameter pipeline approximately 12,700-feet (2.4 miles) long. Due to the size of the existing right-of-way and the number of existing utilities, the streets of East Sacramento cannot currently accommodate a pipe of this size. Existing utilities would need to be relocated in most locations to create a corridor for 10-foot diameter pipe.

This alternative would have localized construction impacts (e.g. construction noise and vibration) substantially greater than the proposed project because construction would take place in a linear fashion and would affect traffic, transportation and air quality due to the increased construction footprint and timeline to install offline linear storage in East Sacramento. Disruption due to construction would most likely extend for a substantially greater period than the two-year construction window of the proposed Project.

For these reasons, the City concluded this alternative was not feasible and it has not been evaluated further in the EIR.

4.1.3.4 Sutter Memorial Hospital

This alternative would include an offline storage facility at 5151 F Street. In 2017, the City approved a residential development to replace Sutter Memorial Hospital at this location and construction has begun. Due to the high elevation of this location at Sutter Memorial Hospital, there is only localized flooding and an offline storage facility at this location would have negligible benefit to the overall system performance. For this reason, this alternative was not feasible and not further evaluated in the EIR.

4.2 PROJECT ALTERNATIVES

As a result of the alternatives development and screening process described above, in addition to the No Project Alternative, three alternatives were identified as potentially feasible alternatives to the Proposed Project for further evaluation in the EIR:

- Alternative 1 – Offline Storage Facility at Sutter School
- Alternative 2 – Offline Storage Facility at Stanford Park
- Alternative 3 – Offline Storage Facility at Sutter School and Stanford Park

These alternatives are described below, along with a comparison of the impacts of the alternatives to the impacts of the proposed Project. The alternatives were also evaluated for their ability to achieve the project objectives, which are presented in Section 2.2.2.
4.2.1 **No Project Alternative**

4.2.1.1 **Description of Alternative**

CEQA Guidelines section 15126.6(e) requires consideration of a “no project” alternative. The purpose of this alternative is to allow the decision makers to compare the impacts of the proposed Project with the impacts of not approving the Project.

Under the No Project alternative, the proposed underground vault would not be constructed. The City’s other plans for future improvement of the combined sewer system would continue to be developed for design and construction, and the City would continue to collect the fee for combined sewer system improvements from new development utilizing the system. There would be no change in the existing physical conditions at the time the Notice of Preparation (NOP) was published, other than what could be reasonably expected to occur in the foreseeable future if the proposed project were not approved, based on current plans and consistent with available infrastructure.

If the proposed Project is not approved, the proposed construction activities and the resulting impacts associated with the construction and operation of the proposed vault would not occur. These include temporary impacts on traffic, air quality, recreation, sensitive wildlife species, and noise during construction.

Operations of the City’s existing combined sewer system would continue, similar to current operations. Improvements to the combined sewer system would continue in a manner consistent with the 2015 City’s 2015 CSSIP Update, subject to funding requirements. Improvements would not include increased capacity, separation or storage that would reduce flooding or combined sewer outflows that are targeted by the proposed vault.

4.2.1.2 **Ability to Meet Project Objectives**

If the proposed Project is not approved, progress to reduce wet-weather combined sewer outflows will not be made in this area. The City would be in jeopardy of failing to satisfy the level of service goals established by the City and incorporated by the Regional Water Quality Control Board (RWQCB) and issued NPDES permit. Additionally, the City will not make progress on overflows as identified in the EPA’s Combined Sewer Overflow Control Policy.

Non-compliance with the NPDES permit would leave the City vulnerable to lawsuits, fines, and, possibly, a Cease and Desist order. A Cease and Desist order, similar to the one imposed in 1990, could require the City to stop all development activities until the order is removed.

4.2.1.3 **Impact Analysis**

Impacts Identified as Being the Same or Similar to the Proposed Project

There are no impacts to resource areas under the No Project Alternative identified as being the same or similar to the proposed Project.
Impacts Identified as Being Less Severe than Proposed Project

- **Aesthetics; air quality; biological resources; cultural and tribal cultural resources; geology and soils, greenhouse gasses; hazards and hazardous materials; land use and planning, noise, public services, recreation; transportation and traffic; and utilities:** Under the No Project Alternative construction for the proposed Project would not occur and the combined sewer system would remain operating under existing conditions. Although no permanent impacts would occur to any of the resources listed above, the combined sewer outflows would continue to occur in this area of East Sacramento and the City would not be in compliance with state and federal regulations.

Impacts Identified as Being More Severe than the Proposed Project

- **Hydrology and Water Quality:** The No Project Alternative would continue operation of the combined sewer system under existing conditions. Sewer overflows would likely continue, and the service level goals documented in the RWQCB’s NPDES permit, and progress on the EPA’s Combined Sewer Overflow Control Policy would be limited. Flooding that occurs in the McKinley Park of East Sacramento would continue to occur if the proposed Project is not approved. Therefore, this would result in a greater impact to hydrology and water quality compared to the proposed Project.

4.2.2 Offline Storage Facility at Sutter Middle School

This alternative would construct and operate a new offline storage facility at Sutter Middle School. Sutter Middle School is located at 3150 I Street. It borders Alhambra Boulevard on the west and J Street on the south. The offline storage facility would be sited in the approximately 2-acre soccer field along J Street and would be approximately 150 feet by 270 feet long (with a maximum storage capacity of 1,000,000-cubic feet). The layout leaves room along the north side and east side to allow student and staff access to school buildings and to minimize the impact to trees along J Street. Construction of the offline storage facility at Sutter Middle School would leave approximately six-tenths of an acre for contractor staging, therefore off-site construction staging may be required.

The contractor would need to build temporary access ramps off Alhambra Boulevard and J Street. The ramps would cross existing sidewalks and would be sited to pass between existing trees. Two access points would be necessary to allow truck traffic to enter from one direction and continue to the exit point without needed room to turn around. One possible truck route would be for trucks to exit onto J Street and turn right, heading for the entrance ramp onto Interstate 80 Business (also called the Capital City Freeway). Trucks from the north would exit the freeway at the E Street exit and continue south on 29th Street to H Street and turn east to Alhambra Boulevard. Trucks would enter the site off Alhambra Boulevard. It would be expected that the contractor would not be allowed to send truck traffic to and from the site when students are being dropped off or picked up. This would severely restrict contractor operations and extend the contractor work schedule.

The construction of the offline storage facility on the Sutter Middle School site would require the complete closure of the soccer field and most of the basketball courts for two to two and a half years. A temporary
chain link fence would separate the construction site from school operations, but equipment would need access along the sides of the excavation inside the fence. Vertical shoring would be required due to the limited room. Dewatering of groundwater would be needed to keep the excavation dry. In addition, a diversion would be built on the 57-inch combined sewer main in Alhambra Boulevard near the school.

4.2.2.1 Ability to Meet Project Objectives

This alternative would reduce outflows during the 10-year design storm that can be considered a possible threat to public health; comply with the requirements of the USEPA “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the NPDES Permit, and the CWA; comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements); and design and construct new facilities to reduce exposure to flooding and sewer outflows in the combined sewer system, while integrating the new facilities into efficient system operations. This alternative would partially achieve adequate response to a 10-year storm event throughout the combined sewer system as it would only be a component of the larger CSSIP.

This alternative would reduce flooding along Alhambra Boulevard and provide an overall reduction in flooding in East Sacramento, but would have minimal flood reduction in the McKinley Park area as compared to the proposed Project. To provide a reduction in flooding at McKinley Park, a large diameter sewer at least five-feet in diameter and 2,400-feet long would need to be constructed in 33rd Street to J Street and to the school site. The streets of East Sacramento are narrow with other utilities already in place so constructing a pipe of this diameter would be challenging.

This alternative would require the complete closure of the soccer field and most of the basketball courts for two to two and half years at Sutter Middle School. Construction would be constricted due to the school schedule; therefore, this alternative would take longer to construct than the proposed Project, resulting in additional disruption to City streets and neighborhoods.

4.2.2.2 Impact Analysis

Impacts Identified as Being the Same or Similar to the proposed Project

- **Aesthetics; biological resources; tribal cultural resources; geology and soils; hydrology and water quality; land use and planning; public services, recreation; hazard and hazardous materials, and utilities:** Similar to the proposed Project, the offline storage facility at Sutter Middle School would result in construction-related impacts to the resources listed above. Construction of the offline storage would be temporary and would be similar in scale to the proposed Project. The location at Sutter Middle School is within a previously disturbed area similar to McKinley Park and would therefore result in similar impacts as described under the proposed Project.

- **Air Quality; greenhouse gasses; noise; traffic and transportation:** Similar to the proposed Project, the offline storage at Sutter Middle School would cause temporary construction impacts
related to air quality, greenhouse gasses, noise, and traffic and transportation. These impacts would be temporary and would consist of construction equipment noise, emissions, and truck trips generated from the installation of the storage facility.

Impacts Identified as Less Severe than the proposed Project

There are no impacts to resource areas under the Offline Storage Facility at Sutter Middle School Alternative identified as being less severe than the proposed Project.

Impacts Identified as Being More Severe than the proposed Project

- **Cultural resources**: The Sutter Middle School site would likely have a greater impact to cultural resources due to the New Helvetia Cemetery that was constructed in this location during the 1840s (California Office of Historic Preservation 2018). Unanticipated human remains could be discovered during construction of the storage facility at this sight which could result in significant impacts.

- **Air quality; greenhouse gasses; noise; and traffic and transportation**: the impacts related to these resources would be greater when compared to the proposed Project. Although the construction activities would be temporary and would require similar construction equipment and truck trips, additional disruption on City streets, surrounding neighborhood and Sutter Middle School could occur due to the longer construction schedule for this alternative.

### 4.2.3 Offline Storage Facility at Stanford Park

This alternative includes a new offline storage facility at Stanford Park. Stanford Park is approximately 2.5 acres and located in Midtown Sacramento at 205 27th Street and is bordered by C Street to the south, B Street to the north, 27th Street to the west and 28th Street to the east. Current uses of the park include a soccer field and a baseball field. The park is surrounded by commercial buildings and the B Street Theater is just north of the site. However, the surrounding area is predominately residential. The offline storage facility would be approximately 235 feet by 235 feet (with a maximum storage capacity of 1,000,000-cubic feet). Due to the size of the park, the entire park would need to be closed to the public during construction. The layout leaves only about 20-feet along the north side and east to allow contractor access for construction purposes with only six-tenths of an acre for contractor staging, therefore, off-site construction staging may be required.

Two access points would be necessary to allow truck traffic to enter from one direction and continue to the exit point to prevent the need to turn around. It is anticipated that one entrance would be off C Street and an exit off 28th Street. This alternative would affect traffic going on or coming off the Interstate 80 Business (also called Capital City Freeway). Truck traffic to the Capital City Freeway could travel east on C Street and south on 29th Street to E Street, turning left onto E Street and left onto the freeway ramp. Trucks from the north would exit the freeway at the E Street exit and turn right on E Street and right again on 28th Street to the park.

The construction of the offline storage facility in Stanford Park would require the complete closure of the park for two to two and a half years. A temporary chain link fence would be built to prevent public access.
to the construction site. Even with closing the entire park, due to the size of the area, the contractor operations would be restricted slowing the construction. In addition, vertical shoring would be required due to the limited room. Dewatering of groundwater would be needed to keep the excavation dry. Lastly, a pipeline 900 feet long with a 9-foot diameter is needed to divert flows from E Street to the storage facility. A pipeline of this diameter would be very difficult to construct in a residential street.

**4.2.3.1 Ability to Meet Project Objectives**

This alternative would reduce outflows during the 10-year design storm that can be considered a possible threat to public health; partially comply with the requirements of the USEPA “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the NPDES Permit, and the CWA; comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements); and design and construct new facilities to reduce exposure to flooding and sewer outflows in the combined sewer system, while integrating the new facilities into efficient system operations. This alternative would partially achieve adequate response to a 10-year storm event throughout the combined sewer system as it would only be a component of the larger CSSIP.

This alternative would have significantly less impact on flooding reduction in East Sacramento than the proposed Project. In order to reduce flooding in the low areas in East Sacramento around McKinley Park a large diameter sewer at least five-feet in diameter, would need to be constructed from 33rd Street and McKinley Boulevard to the Park. This sewer would be approximately 3,600 feet long and would need to be sited in McKinley Boulevard, E Street and 28th Street. Due to the length, it would need to be very deep to provide gravity flow all the way to Stanford Park.

As stated above, this alternative would require the complete closure of Stanford Park for two to two and a half years and due to the limited size of Stanford Park and surrounding area, the contractor operations would be restricted slowing the construction. Therefore, this alternative would take longer to construct than the proposed Project, resulting in more disruption to City streets and neighborhoods.

**4.2.3.2 Impact Analysis**

Impacts Identified as Being the Same or Similar to the proposed Project

- **Aesthetics; biological resources; cultural and tribal cultural resources; geology and soils; hazards and hazardous materials; hydrology and water quality; land use and planning; public services; recreation; and utilities**: the offline storage facility at Stanford Park would result in similar impact compared with the proposed Project due to the location in a Park setting and the relatively close proximity to residences and other parks in the area. Impacts related to the above resources would therefore be similar as discussed under the proposed Project.

Impacts Identified as Less Severe than the proposed Project

There are no impacts to resource areas under the Offline Storage Facility at Stanford Park Alternative identified as being less severe than the proposed Project.
Impacts Identified as Being More Severe than the proposed Project

- **Air quality; greenhouse gasses; noise; and traffic and transportation:** the impacts related to these resources would be greater when compared to the proposed Project. Although the construction activities would be temporary and would require similar construction equipment and truck trips, additional disruption on City streets and the surrounding neighborhood could occur due to the longer construction schedule for this alternative.

### 4.2.4 Offline Storage Facility at Sutter Middle School and Stanford Park

This alternative is similar to the Offline Storage Facility at Sutter School and the Offline Storage Facility at Stanford Park alternatives as described above. Instead of having all the storage volume at one site or the other, the storage volume would be equitably split between the two sites and therefore be smaller in size than described in the alternatives above. Due to the smaller offline storage facilities, this would provide additional area for construction staging and access.

#### 4.2.4.1 Ability to Meet Project Objectives

This alternative would reduce outflows during the 10-year design storm that can be considered a possible threat to public health; comply with the requirements of the USEPA “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the NPDES Permit, and the CWA; comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements); and design and construct new facilities to reduce exposure to flooding and sewer outflows in the combined sewer system, while integrating the new facilities into efficient system operations. This alternative would partially achieve adequate response to a 10-year storm event throughout the combined sewer system as it would only be a component of the larger CSSIP.

This alternative would provide less flood protection in East Sacramento than the proposed Project. Placing an offline storage facility at Stanford Park provides minimal flood protection (as described above) so it would not reduce East Sacramento neighborhood street flooding and outflow problems as compared to the proposed Project. In addition, the offline storage facility at Sutter Middle School would have a reduced storage volume (due to the reduced size) under this alternative.

This alternative would also have more disruption to City streets and neighborhoods than the proposed Project because two sites would be under construction.

#### 4.2.4.2 Impact Analysis

Impacts Identified as Being the Same or Similar to the proposed Project

- Aesthetics; biological resources; tribal cultural resources; geology and soils; land use and planning; public services; recreation; hazards and hazardous materials; hydrology and water quality; and utilities: The offline storage at Sutter Middle School and Stanford Park would result in
similar impacts related to the above resources as with the proposed Project due to the scale and locations of this alternative.

- **Air quality; greenhouse gasses; noise; and traffic and transportation:** Impacts related to air quality, greenhouse gasses, noise, and traffic would be similar to the proposed Project due to the location and scale of the storage facility. Additional impacts related to traffic have the potential to occur because of the smaller construction space at both Sutter School and Stanford park, however, as with the proposed Project, these potential impacts could be reduced to less than significant with mitigation incorporated. Therefore, this alternative would have similar impacts when compared to the proposed Project.

**Impacts Identified as Less Severe than the proposed Project**

There are no impacts to resource areas under the Offline Storage Facility at Sutter Middle School and Stanford Park Alternative identified as being less severe than the proposed Project.

**Impacts Identified as Being More Severe than the proposed Project**

- **Cultural resources:** The Sutter Middle School site would likely have a greater impact to cultural resources due to the New Helvetia Cemetery that was constructed in this location during the 1840s (California Office of Historic Preservation 2018). Unanticipated human remains could be discovered during construction of the storage facility at this sight which could result in significant impacts.

4.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires identification of the environmental superior alternative; that is, the alternative that has the least significant impacts on the environment.

As presented in Chapter 3.0, implementation of the proposed Project would result in less than significant environmental impacts. As discussed in section 4.2, the no project, offline storage facility at Sutter Middle School, offline storage facility at Stanford Park, and offline storage facility at Sutter Middle School and Stanford Park alternatives have the potential to have greater environmental impacts than the proposed Project. With respect to achieving Project objectives, the alternatives would not or only partially achieve the proposed Project objectives as compared to the proposed Project.

Therefore, because the proposed Project would result in less environmental impacts than the alternatives, it would be the environmentally superior alternative. Table 4.3-1 presents a summary of how each alternative compares to the proposed Project with respect to the impacts and the ability to meet project objectives.
Table 4.3-1 Comparison of Environmental Impacts of the Alternatives Compared to the Proposed Project

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<td>Meets Project Objectives:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce or eliminate outflows during the 10-year design storm that can be considered a possible threat to public health</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Comply with the requirements of the United States Environmental Protection Agency’s (USEPA) “Combined Sewer Overflow Control Policy,” “Nine Minimum Controls,” the National Pollutant Discharge Elimination System Permit, and the Clean Water Act</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Comply with 2035 General Plan policies including U 1.1.1 (Provision of Adequate Utilities), U 1.1.3 (Sustainable Facilities and Services), U 1.1.10 (Safe, Attractive and Compatible Utility Design), U 1.1.12 (Impacts to Environmentally Sensitive Lands), U 3.1.1 (Sufficient Wastewater Service), U 3.1.4 (Combined Sewer System Rehabilitation and Improvements)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Reduce East Sacramento neighborhood street flooding and outflow problems where it is economically feasible to do so</td>
<td>Yes</td>
<td>No</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
</tr>
</tbody>
</table>
### MCKINLEY WATER VAULT PROJECT

Alternatives
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<table>
<thead>
<tr>
<th></th>
<th>Partially</th>
<th>No</th>
<th>Partially</th>
<th>Partially</th>
<th>Partially</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve adequate response to a 10-year storm event throughout the combined sewer system</td>
<td>Partially</td>
<td>No</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
</tr>
<tr>
<td>Design and construct new facilities to reduce exposure to flooding and sewer outflows in the Combined Sewer System, while integrating the new facilities into efficient system operations</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Minimize disruption of the use of City parks, streets and neighborhoods during construction</td>
<td>Yes</td>
<td>No</td>
<td>Partially</td>
<td>Partially</td>
<td>Partially</td>
</tr>
</tbody>
</table>
5.0 OTHER CEQA CONSIDERATIONS

This section describes required topics including growth inducing impacts, significant and unavoidable impacts, and significant irreversible environmental changes relative to the proposed Project. It provides a discussion of energy conservation as required by section 15126.4 of the California Environmental Quality Act (CEQA) Guidelines. Finally, this section addresses and assesses the potential for cumulative impacts from the proposed Project in conjunction with recent past, current and reasonably foreseeable future projects.

5.1 GROWTH INDUCING IMPACTS

CEQA (Guidelines (section 15126.2(d)) requires that an Environmental Impact Report (EIR) evaluate the growth inducing impact of a proposed action. The Guidelines describe the required growth inducement analysis as follows:

Discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works projects, which would remove obstacles to population growth, would tax community service facilities, or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have the potential for direct and/or indirect growth inducement. Direct growth inducement would result if a project involved construction of new housing which would facilitate new population in an area. Indirect growth inducement or secondary growth-inducement potential would be present if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), or if it would involve a substantial construction effort with substantial long-term employment opportunities which could indirectly stimulate the need for additional housing and services to support the new employment demand.

Similarly, a project could indirectly induce growth if it would remove a physical obstacle to additional growth and development, such as removing a constraint or adding a required public service. Other examples of removing a physical obstacle would include construction of a new roadway into an undeveloped area or construction of a wastewater treatment plant with sufficient capacity to serve additional new development. Construction of these types of infrastructure projects cannot be considered isolated from the immediate development that they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth, are those that may provide a catalyst for future unrelated development in the area. The growth inducing potential of a project could also be considered significant if it fosters growth in excess of what is assumed in the local master plans and land use plans, or in projections made by regional planning agencies.
5.1.1 Direct Growth Inducement

The proposed Project would construct and operate a vault to hold stormwater and sanitary sewage during large event storms. The stormwater generated during large storms can overwhelm the system that carries combined flows, leading to surcharges in which the flows escape from the system and flow onto streets. The proposed project would be designed to hold and release such flows on a metered basis when downstream capacity is present. The proposed Project would be designed to meet the existing infrastructure needs of the area. The project does not extend utility service that would encourage unplanned growth and would not reduce or eliminate any obstacles to future development.

The proposed Project was evaluated to verify whether an increase in population or employment, or the construction of new housing would occur as a direct result of the Project. As discussed in Chapter 1, approximately 50 construction workers would be present at any one time during construction of the proposed Project, with an average of approximately 10 workers present on any given day for the 24-month duration of the Project.

The construction workforce would include those employed in excavation, including equipment surveyors, equipment operators and truck drivers. Once excavation is complete the construction force would include those employed in building and finishing the vault, including concrete truck drivers and construction personnel. The final phases of construction would include technical staff installing operational controls, landscapers and park personnel restoring the park to its original condition. Various other workers would be on and about the site, including engineers, flaggers for traffic, pedestrians and cyclists, City staff supervising and overseeing the work and crews assigned to daily clean-up of the site and surrounding areas.

These workers would be employed by various entities. Some would work for the various private construction companies that have entered into contracts with the City for the work, others by companies that have contracted with the general contractor to provide specific work, such as staking the site for excavation, or hauling and pouring concrete. Others at the site will be permanent employees of the City. Thus, some of the employees who would work at the site will be existing, permanent employees of a company or public agency, while others could be hired for the project and its duration. Decisions regarding employment will be made at different times by different entities over the course of the project construction, and any specific and measurable effects on the region’s employment would be diffuse and would require speculation.

It is possible, however, to measure the region’s employment and the likelihood that the project could generate sufficient employment to affect housing and economic activity such as purchases for equipment, supplies or worker support. During 2017 it was reported that total employment in the construction industry in the Sacramento region was approximately 58,000 people. The unemployment rate for the construction industry was 4.3 percent, meaning that this percentage of persons seeking employment in the industry had been unable to locate work (Bureau of Labor Statistics 2018).

As discussed above, some of the persons that would be employed on the project would be permanent employees, and the project would not induce new employment for those persons. Given the number of persons that are seeking employment, however, it is reasonable to conclude that the project would not
require levels of employment that would exceed the region’s labor market, thus generating demand for housing, services or supplies that exceeds the levels set forth in, for example, the City’s general plan or SACOG’s MTP/SCS. For example, it is not anticipated that substantial numbers of workers would relocate to the area, creating a demand for housing.

Operation of the proposed Project would not involve a substantial change in the existing operation and maintenance activities by the City. The proposed Project would not require any additional permanent City employees for operations and would not require the removal of any existing homes or displace businesses or people, nor would the Project result in the construction of any housing.

Construction or operation of the proposed Project would not result in direct growth inducement.

### 5.1.2 Indirect Growth Inducement

To determine indirect growth inducement potential, the proposed Project was reviewed to determine whether it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. The proposed project, as discussed above, would be designed and operated to respond to existing demands and risks of flooding related to the operation of the combined sewer system. The project’s key objective is to improve the existing conditions, not to extend service or expand capacity that could lead to growth.

The proposed Project would not directly or indirectly induce growth or remove an obstacle to growth, would not require or result in the need for new or expanded water or wastewater treatment facilities, and would not increase population. No growth inducing effects would occur.

### 5.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines section 15126(b) requires an EIR to "describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described."

Section 3.0 of this EIR provides a description of the potential environmental impacts of the proposed Project and recommends mitigation measures to reduce impacts to a less than significant level, where possible. After implementation of the recommended mitigation measures, all of the potentially significant impacts associated with the proposed Project would be reduced to a less than significant level. Therefore, the proposed Project will not have significant and unavoidable impacts.

### 5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines section 15126.2(c) describes irreversible environmental changes as follows:

Uses of nonrenewable resources during the initial and continued phases of a project may be irreversible if it requires a large commitment of such resources or makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a
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previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The CEQA Guidelines refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA requires that irreversible damage that could result from an environmental accident associated with the Project be evaluated.

Construction of the proposed Project would result in the commitment of nonrenewable natural resources used in the construction process and during operation, including gravel, petroleum products, steel, and other materials. As discussed in Utilities and Service Systems section (Section 3.14) and Hazards and Hazardous Materials (3.7), the proposed Project would not generate large amounts of construction waste.

Construction and operation of the proposed Project would also result in commitment of energy resources such as fossil fuels and electricity. Direct energy use during construction and operation would involve using petroleum products and electricity to operate equipment, and indirect energy use would involve consuming energy to extract raw materials, manufacture items, and transport the goods and people necessary for construction activities. Construction-related energy consumption would be temporary and would be confined to the construction period. Nevertheless, construction and operation activities would, as with any construction project, cause irreversible and irretrievable commitments of finite nonrenewable energy resources, such as gasoline and diesel fuel.

The proposed Project would include all feasible control measures to improve equipment efficiency and reduce energy use as required by the SMAQMD. These measures include an Emission and Dust Control Plan that would reduce unnecessary equipment idling and other policies that would help reduce energy use and are consistent with state and local legislation and policies to conserve energy. In addition, the proposed Project would comply with applicable Federal, State and local policies and regulations pertaining to energy standards and would ensure that natural resources are conserved to the maximum extent possible. Therefore, due to the rate and amount of energy consumed, the proposed Project would not result in the unnecessary, inefficient, or wasteful use of resources and energy use would be accomplished in a manner consistent with applicable laws and regulations.

Finally, construction and operation of the proposed Projects has the potential to result in accidental release of hazardous materials which may lead to irreversible damage. However, as stated in Section 3.7, hazardous materials used during construction would be typical of common construction activities. They would be handled by the contractor in accordance with applicable federal, State, and local regulation for hazardous substances. Additionally, the amount of these materials needed for on-site equipment maintenance would not be sufficient to cause a significant hazard to the public, or any nearby schools, if released since the quantity of these hazardous materials on-site at any one given time would amount to a refueling truck and construction equipment.
5.4 ENERGY RESOURCES

This section was prepared pursuant to CEQA Guidelines sections 21100(b)(3) and 15126.4(a)(1)(c), and Appendix F of the State CEQA Guidelines. As stated in Appendix F, “[i]n order to ensure that energy implications are considered in project decisions,” an Environmental Impact Report (EIR) must discuss “the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy.” Appendix F, Section I states that, “Potentially significant energy implications of a project shall be considered in an EIR to the extent relevant and applicable to the project.”

The proposed Project includes a Water Vault in McKinley Park that would result in an increased capacity to store wastewater and stormwater flows during storm events. The Water Vault would require minimal energy consumption when in use, during large rain events, and would remain unused during the summer months. Therefore, the only energy consumption would occur during operation of the Water Vault which would be minor and only during the winter months. Additionally, the Water Vault would incorporate energy efficiencies into the operations which would be in compliance with all applicable Federal, State and local policies, and regulations pertaining to energy standards and would ensure that natural resources are conserved to the maximum extent possible.

Air Quality (Section 3.2) and Greenhouse Gas Emissions (Section 3.6), describe the less than significant impacts on climate change and greenhouse gas emissions that would be caused by construction of the proposed Project, including a discussion on the effects of the proposed Project on energy resources. Also, as discussed above, the proposed Project would include all feasible control measures to improve equipment efficiency and reduce energy use as required by the SMAQMD. These measures include an Emission and Dust Control Plan that would reduce unnecessary equipment idling and other policies that would help reduce energy use and are consistent with state and local legislation and policies to conserve energy. Therefore, due to the rate and amount of energy consumed the proposed Project would not result in the unnecessary, inefficient, or wasteful use of resources and that energy use would be accomplished in a manner consistent with applicable laws and regulations.

5.5 CUMULATIVE IMPACTS

CEQA requires an environmental impact report to include a discussion of cumulative effects of a project when the project’s incremental effect is “cumulatively considerable.” An effect is cumulatively considerable when it is significant when viewed in connection with the effects of past projects, the effects of other current projects and the effects of future projects (CEQA Guidelines section 15065(a)(3)).

A “cumulative impact” is an impact that is created as a result of the combination of a project together with other projects causing related impacts. The first step in the cumulative analysis, therefore, is to identify each impact of the project and, in each case, consider whether there are other projects (past, current, future) that could have related impacts, and then to determine whether the project’s contribution to the overall impact is “cumulatively considerable.”
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For example, a project that constructs and operates a retail center would generate a substantial number of vehicle trips once the center is completed and opened for operation, and which would affect road operations and conditions in the vicinity of the project site. A lead agency would be required not only to consider the effects of trips generated by the project, but also those trips in combination with other projects that might contribute vehicle trips to the same roadway system. Thus, CEQA seeks to avoid situations in which a series of small projects with relatively minor effects eventually result in far larger effects as their effects are combined.

The proposed Project would construct an underground vault in McKinley Park. Once the proposed Project is constructed the Park would be returned to its former condition and use. A small building housing the bathrooms and electrical facility would be visible above-ground. If and when the storage capacity of the vault is used there would be no effects: no noise, no odor, and no traffic. The City has identified no effects of the operation of the vault. “An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR” (CEQA Guidelines section 15130(a)(1)). For that reason, this EIR does not discuss further the issue of cumulative effects related to the operation of the vault.

Additionally, the proposed Project was analyzed in terms of consistency with Project’s identified in the City of Sacramento General Plan and the City of Sacramento General Plan Master Environmental Impact Report. The subsequent sections include an overview of the relevant cumulative impacts and the proposed Project’s potential to contribute to the construction related cumulative impacts. Specifically, Section 5.5.1 discusses cumulative impacts to resources in relation to their geographic scope and Table 5.5-1 identifies which method of evaluation is appropriate for each resource.

5.5.1 Geographic Scope

The geographic area that is analyzed for cumulative impacts depends on the resource being analyzed. The geographic area associated with a proposed project’s different environmental impacts defines the boundaries of the area used for compiling the list of past, present, and probable future projects considered in the cumulative impact analysis. The geographic area that could be affected by implementation of the proposed Project in combination with other projects varies depending on the type of environmental resource being considered. The general geographic area associated with different types of environmental effects of the proposed Project defines the scope of the area considered in the cumulative impact analysis (see Table 5.5-1). Also listed is the method of evaluation used to analyze cumulative impacts for each environmental resource.
Table 5.5-1  Geographic Scope of Cumulative Impact and Method of Evaluation

<table>
<thead>
<tr>
<th>Resource Topic</th>
<th>Geographic Area</th>
<th>Method of Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>Immediate Project Vicinity</td>
<td>Projects</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Local (Toxic Air Contaminants)</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td></td>
<td>Air Basin (Construction Related and Mobile Sources)</td>
<td></td>
</tr>
<tr>
<td>Biological Resources</td>
<td>Immediate Project Vicinity Region</td>
<td>Projects</td>
</tr>
<tr>
<td>Cultural and Tribal Resources</td>
<td>Immediate Project Vicinity</td>
<td>Projects</td>
</tr>
<tr>
<td>Geology and Soils</td>
<td>Immediate Project Vicinity</td>
<td>Project</td>
</tr>
<tr>
<td>Greenhouse Gas Emissions, Climate Change, and Energy</td>
<td>GHG (Statewide)</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td>Hazards and Hazardous Materials</td>
<td>Immediate Project Vicinity</td>
<td>Projects</td>
</tr>
<tr>
<td>Hydrology and Water Quality</td>
<td>Immediate Project Vicinity</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td>Land Use and Planning</td>
<td>Immediate Project Vicinity</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td>Noise</td>
<td>Immediate Project Vicinity</td>
<td>Projects</td>
</tr>
<tr>
<td>Public Services</td>
<td>Immediate Project Vicinity</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td>Recreation</td>
<td>Immediate Project Vicinity</td>
<td>Projects</td>
</tr>
<tr>
<td>Transportation and Traffic</td>
<td>Immediate Project Vicinity</td>
<td>Projects and Projections</td>
</tr>
<tr>
<td></td>
<td>Regional roadway network</td>
<td></td>
</tr>
<tr>
<td>Utilities and Service Systems</td>
<td>Immediate Project Vicinity</td>
<td>Projects and Projections</td>
</tr>
</tbody>
</table>

Notes:  
Projects = the use of a list of past, present, and reasonable foreseeable projects  
Projections = the use of projections contained in relevant planning documents

For those environmental resources that were evaluated based on the projections approach, the projections take into consideration future projects that are not included in the below list of related plans and projects.
5.5.2 List of Related Plans and Projects

A list of past, current, and reasonably foreseeable future projects was compiled using information from City. The past, present and reasonably foreseeable future projects proposed by the City within or directly adjacent to the proposed Project Area, in the vicinity of McKinley Park, the surrounding community, or the City as a whole were identified and categorized in Table 5.5-2 below. For the purposes of this discussion, these projects that may have a cumulative effect on the resources of the Project area are often referred to as the “collective projects.” These projects are described in Table 5.5-2.
Table 5.5-2  List of Collective Past, Present, and Reasonably Anticipated Future Projects in the Region

<table>
<thead>
<tr>
<th>Project/Action</th>
<th>Status</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>McKinley Village</td>
<td>In progress</td>
<td>City of Sacramento</td>
<td>The McKinley Village project consists of the construction and operation of a residential development, a neighborhood recreation center, parks, and associated infrastructure on an approximately 48-acre site within the East Sacramento Community Plan Area.</td>
</tr>
<tr>
<td>2025 L Street / 2101 Capitol Avenue Mixed-Use Project</td>
<td>In progress</td>
<td>20th Street, 21st Street, L Street, Capitol Avenue</td>
<td>The 2025 L Street project component would be located on the half-block north of L Street, between 20th and 21st Streets. An existing above-ground, two story parking garage and adjacent two story building at this location would be demolished, an existing surface parking lot would be removed, and a new six story, mixed use building would be constructed.</td>
</tr>
<tr>
<td>Railyards Specific Plan</td>
<td>In progress</td>
<td>City of Sacramento</td>
<td>Sacramento Railyards Specific Plan area is approximately 244-acres and includes the subject property, the City's Sacramento Valley Station, and the Union Pacific Railroad rail corridor. The project proposes to subdivide lots for a variety of uses, including residential, retail, and office. The project also includes a medical center campus and a major sports complex.</td>
</tr>
<tr>
<td>700 Block of K Street</td>
<td>In progress</td>
<td>K street</td>
<td>A mixed-use development with residential units, retail/restaurant/entertainment uses and a parking structure. The project would renovate the majority of the existing building facades along K Street on this fully developed site.</td>
</tr>
<tr>
<td>Leisure Lane Storm Drain Improvements Project</td>
<td>In progress</td>
<td>Royal Oaks Drive/Hwy 160 and Leisure Lane/Exposition Blvd/Hwy 160</td>
<td>Project consists of constructing a new outlet weir box north of CA-Highway 160 between the existing sewer line.</td>
</tr>
<tr>
<td>15th and 14th Street Combined Sewer Relief CIP</td>
<td>In Progress</td>
<td>City of Sacramento</td>
<td>The 7th Street Sewer project includes the construction of approximately 3,200 linear feet of 72-inch, 60-inch and 48-inch diameter pipeline and appurtenances, construction of manholes and other associated work in 7th Street from P to K Street and in L Street from 7th to 9th Street.</td>
</tr>
<tr>
<td>9th Street Sewer Project</td>
<td>In Progress</td>
<td>Along 9th street from G to L Streets</td>
<td>Construction of the 9th Street Sewer project will provide additional conveyance capacity, replace deteriorated portions of the combined sewer system, add in-line storage to reduce flooding in the surrounding and upstream portions of the combined sewer system, and continue the Downtown Sewer Upsizing Project, a major component of the long-term Combined Sewer System Improvement Program.</td>
</tr>
<tr>
<td>3rd Street Sewer Relief Project</td>
<td>In Progress</td>
<td>Along 3rd street from I to U streets</td>
<td>Plans and specifications for the upgrades along the 3rd Street corridor are currently being finalized.</td>
</tr>
<tr>
<td>Yamanee Mixed-Use Project</td>
<td>In Progress</td>
<td>Intersection of 25th and J Streets</td>
<td>The proposed project is a new multi-story, mixed-use building southeast of the intersection of 25th and J Streets.</td>
</tr>
<tr>
<td>Oakmont of East Sacramento</td>
<td>In Progress</td>
<td>5301 F Street</td>
<td>The project includes the demolition of the vacant medical office building and redevelopment of the project site with a senior living facility.</td>
</tr>
<tr>
<td>19 J Project</td>
<td>In Progress</td>
<td>1827 and 1831 I Street</td>
<td>The 19J Project proposes demolition of the existing buildings on site and construction of an 11-story mixed use structure.</td>
</tr>
<tr>
<td>Accelerated Water Meter Project</td>
<td>In Progress</td>
<td>City of Sacramento</td>
<td>The Accelerated Water Meter Project proposes to install approximately 25,700 water meters on existing residential and commercial water service connections. The proposed project also involves replacement of approximately 62 miles of existing distribution and transmission mains primarily in existing City street rights-of-way.</td>
</tr>
<tr>
<td>Sutter Park Neighborhood Project</td>
<td>In Progress</td>
<td>Coloma Terrace neighborhood of East Sacramento</td>
<td>The Sutter Park Neighborhood Project would establish a Planned Unit Development on the property on which Sutter Memorial Hospital and its associated offices and related-care facilities are located.</td>
</tr>
<tr>
<td>Sacramento Convention Center Renovation and Expansion and the 15th/K Street Hotel Projects</td>
<td>Future Project</td>
<td>13th Street W., 15th Street E., J Street N., K Street S.; Hotel: SW corner of K and 15th Streets</td>
<td>The proposed Sacramento Convention Center Renovation and Expansion project will add exhibit space, meeting rooms, new lobbies, an outdoor amphitheater, and back-of-house uses to expand and renovate the existing Convention Center. The 15th/K Street Hotel project will construct a hotel adjacent to the Convention Center.</td>
</tr>
<tr>
<td>Twin Rivers Transit-oriented Development and Light Rail Station Project</td>
<td>Future Project</td>
<td>Richards Blvd./North 12th Street</td>
<td>The City, in partnership with the Sacramento Housing and Redevelopment Agency and the Sacramento Regional Transit District, proposes implementation of the Twin Rivers Transit-Oriented Development and Light Rail Station Project. The proposed project would develop a mixed-income and mixed-use community comprising replacement public housing units, new market rate rental and low-income housing tax credit units, a realigned internal street network, green open space, and other community amenities on two noncontiguous but proximate properties that currently include public housing and undeveloped land.</td>
</tr>
</tbody>
</table>
5.5.3 Methods

The analysis below examines the cumulative impacts of the proposed Project for each of the topics that are analyzed in Chapter 3.0 of this EIR. The impacts are assessed by short term (construction) and long term (operational) impacts of the proposed Project combined with the impacts of the past and planned projects listed in Table 5.5-2 (referred to as the collective projects).

The following objectives were set forth to analyze the short-term construction and long-term operational cumulative impacts. First, there is an assessment of whether the baseline condition, when considered with the proposed Project, entails a significant impact to any specific resource. Then, there is an assessment of whether the combined impacts of the proposed Project and the projects in Table 5.5-2 are cumulatively significant. Finally, there is a determination of whether the incremental effects of the proposed Project would ‘contribute considerably’ and therefore cause a cumulatively considerable effect. If so, there is also a determination of whether mitigation is feasible.

Specifically, the following objectives were set forth to analyze the short-term construction and long-term operational cumulative impacts discussed in Section 5.5.4:

1. Identify if the combined impacts of the proposed Project and the projects in Table 5.5-2 are significant. If so,
2. Determine whether the proposed Project’s incremental contribution to that significant impact are cumulatively considerable. If so,
3. Determine if mitigation is feasible.

Note: it is possible that even when the cumulative impact of multiple projects is significant, the incremental contribution of the impact for the proposed Project may itself not be cumulatively considerable (California Code of Regulations (CCR) section 15064.H4, Communities for Better Environment Case Law). In this case, the Project’s impact would not be cumulatively considerable.

Furthermore, a project's contribution is less than cumulatively considerable if the project implements mitigation measures designed to alleviate the cumulative impact. (CEQA Guidelines section 15130 (a)(3)).
5.5.4 Resource-Specific Cumulative Analysis

5.5.4.1 Aesthetics

What is the Geographic Scope for this resource area?

The geographic scope of the potential cumulative impacts with respect to aesthetic and visual resources is limited to areas within the physical footprint of a Project area.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The area surrounding the proposed Project site is a general mix of uses (see Section 3.9 Land Use). Development of past and current projects, as well as future proposed projects, continue to alter the visual environment in and around the City. In general, the visual resource impacts of the proposed Project and the majority of projects listed in Table 5.5-2 are site-specific, and would not necessarily combine with other projects that are not in the same viewshed to create a cumulative impact. In addition, all proposed and reasonably foreseeable projects would be subject to City design and landscaping requirements to ensure that they do not degrade visual character. The appearance of the Project vicinity would not substantially change, and the construction of the proposed Project would not create significant visual impacts that would contribute to visual resource degradation in the viewshed when assessed in conjunction with other local projects. Therefore, the proposed Project, in conjunction with other planned projects, would have a less-than-significant cumulative impact on aesthetic and visual resources.

Finding: Less than Cumulatively Significant

Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?

The multiple development, transportation and infrastructure projects in the region around the City would have a combined aesthetic impact; however, the proposed Project would not cause a considerable increase to that impact, given the proposed Project facilities would be mostly below ground and consistent with City architectural standards.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of the projects do not constitute a significant impact and the proposed Project does not entail a considerable contribution to the existing baseline (Table 5.5-2); therefore, no mitigation is necessary.

Finding: None Required
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5.5.4.2 Air Quality

What is the Geographic Scope for this resource area?

The geographic scope of the potential cumulative impacts with respect to air quality is on a regional level because air quality impacts are regional in nature.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The City is at nonattainment for State and Federal Ozone, State PM\textsubscript{10} and Federal PM\textsubscript{2.5}. The collective projects listed in Table 5.5-2 would result in new air emissions. Therefore, the combined Table 5.5-2 project impacts relative to these constituents are considered significant.

Finding: Cumulatively Significant

Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?

The SMAQMD has established operational cumulative significance thresholds for ROG and NO\textsubscript{x}, which are ozone precursors, of 85 pounds per day. Any project emitting over 85 pounds per day of ROG or NO\textsubscript{x} would be considered a cumulatively significant impact and would require mitigation. Based on the results of the CalEEMod, operational emissions from the proposed Project would be below the SMAQMD significance thresholds for cumulative impacts (See Air Quality Section 3.2). Additionally, the proposed Project Would be consistent with the City 2035 General Plan EIR air quality impact analyses. As such, cumulative impacts related to air quality emissions from development of the site consistent with General Plan land use designations have already been accounted for by the City 2035 General Plan EIR.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

As discussed above, the baseline cumulative contribution to air quality impacts in the region is considered significant because the City is at nonattainment for three constituents; however, the incremental addition to the problem from the proposed Project is considered mitigated to de minimus levels, and thus does not contribute considerably to this existing impact. Therefore, no further mitigation is required.

Finding: None Required

5.5.4.3 Biological Resources

What is the Geographic Scope for this resource area?

The geographic scope of the cumulative biological resources analysis is the Project site and adjacent surrounding areas.
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What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The cumulative projects listed in Table 5.5-2 may result in a cumulatively significant impact to biological resources depending on site conditions and would be required to individually mitigate for impacts. When considered together, for example, the loss of potential Designated Critical Habitat (DCH) is not considered significant due to the lack of DCH in the Project area. Therefore, in general, the proposed collective projects in Table 5.5-2 are not considered to have a cumulatively significant impact to biological resources.

Finding: Less than Cumulatively Significant

Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?

When the proposed Project is analyzed in conjunction with other recent, current, and reasonably foreseeable projects, the potential contribution to the cumulative biological resource impact to special status species, wetlands, migratory corridors, and trees, is not considered cumulatively considerable, because the proposed Project was designed and adjusted to avoid and minimize impacts to biological resources. Additionally, the proposed Project would greatly offset potential biological resources impacts through protective measures such as tree protection and avoidance.

The proposed Project would not have a cumulatively considerable impact to migratory wildlife corridors, specifically migratory nesting birds, when reviewed in conjunction with other local projects. This is because the majority of the proposed Project facilities are located below ground, and thus disturbances to species migration are temporary in nature. Additionally, the proposed Project is designed to protect wildlife species such as migratory birds through implementation of pre-construction biological surveys and monitoring, as needed, to protect and avoid these biological resources.

As disclosed in the Biological Resources Section (Section 3.3), the proposed Project would not conflict with local policies or ordinances protecting biological resources, or habitat conservation plans. Therefore, it does not contribute to a cumulatively considerable impact to such plans and policies when analyzed in conjunction with other proposed projects in the region (Table 5.5-2).

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to biological resources. The proposed Project does not add a cumulatively considerable impact to the combined proposed Project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required
5.5.4.4 Cultural and Tribal Resources

What is the Geographic Scope for this resource area?

The geographic scope of the cumulative cultural and tribal analysis is the Project site and adjacent surrounding areas.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The records search of the State and local registers of archaeological resources did not identify any archaeological resources (prehistoric or historic period) within the Project area. In addition, based on consultation with tribal representatives summarized in Cultural Resources and Tribal Resources (Section 3.4), no tribal cultural resources were identified within the project area. The records search of the State and local registers of historic resources identified one resource, the McKinley Park/Florence Turton Clunie Memorial as an important historical resource designated by the Office of Historic Preservation (OHP), and one resource, the Rose Garden, as a resource with local significance. However, as stated in Cultural Resources and Tribal Resources (Section 3.4), construction site access is planned on the north and east sides of the Park to limit construction traffic immediately adjacent to the Rose Garden and construction would not impact the McKinley Park/Florence Turton Clunie Memorial. As such, potential indirect construction impacts are not anticipated to cause a change in the Memorial or Rose Garden’s significance or character defining features. Both the McKinley Park/Florence Turton Clunie Memorial and the Rose Garden would remain intact and undisturbed by the Project.

There is a potential for the inadvertent discovery of buried tribal cultural resources, significant paleontological resources, or human remains during the construction of the proposed project, but with implementation of the mitigation measures proposed in Cultural Resources and Tribal Resources (Section 3.4), it would reduce the proposed Project’s impacts to tribal cultural resources, significant paleontological resources, and human remains to less than significant.

Simultaneous construction of projects in the Project area could potentially result in significant impacts on historic resources, archaeological resources, human remains, or tribal resources, should they be present within the Project site or the vicinity of the project site. None of the projects listed in Table 5.5-2 have direct physical overlap with the proposed Project and all the projects listed in Table 5.5-2 were/are required to complete CEQA environmental assessments, by law, which include a cultural resource study within the area including any areas overlapping the proposed Project area as well as consultation with any tribes located in the area. These cultural resource studies and tribal consultations ensure proper documentation, protection, and/or mitigation of important cultural and tribal resources. Because of the CEQA requirements to assess impacts to cultural and tribal resources, there is no combined significant impact to cultural or tribal resources from these projects, and the combined impacts to cultural and tribal resources are considered less than cumulatively significant.

Finding: Less than Cumulatively Significant
Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?

Since combined impacts of the projects do not constitute a significant impact and the proposed Project does not entail a significant impact to cultural or tribal resources, there would not be a contribution to a cumulatively considerable impact.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to cultural or tribal resources. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required

5.5.4.5 Geology and Soils

What is the Geographic Scope for this resource area?

The geographic scope of the cumulative geologic resources is the Project site and adjacent surrounding areas.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The projects in Table 5.5-2 must be constructed in compliance with seismic regulations and include soils and erosion control BMPs. There are no overlapping projects in Table 5.5-2 with the proposed Project based on location and construction schedule that would exacerbate soil disturbances. Therefore, the potential impact to soil erosion is localized and mitigated, and not considered cumulatively significant.

Finding: Less than Cumulatively Significant

Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?

Construction in a seismically-active region puts people and structures at risk from a range of earthquake-related effects, such as surface fault rupture, strong ground shaking, and landsliding. However, as discussed in Geology and Soils (Section 3.5), the proposed Project is not located within an area that is seismically active. Furthermore, the proposed Project would be built to applicable California State Building Codes to further reduce risks associated with seismic activity. The proposed Project would also entail erosion control BMPs and site restoration. Therefore, the proposed Project's contribution to seismic hazards, erosion, and sedimentation in the region is not considered cumulatively considerable.

Finding: Less than Cumulatively Considerable
Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to geologic resources. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required

5.5.4.6 Greenhouse Gases

What is the Geographic Scope for this resource area?

The geographic scope of the potential cumulative impacts with respect to greenhouse gas emissions is on a regional level because greenhouse gas emissions impacts are regional in nature.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The analysis of greenhouse gas emissions (see Greenhouse Gas Emissions [Section 3.6]) is based on the regional impacts of climate change resulting from greenhouse gas emissions globally. Regional and local impacts to GHG emissions are a less-than-significant impact.

The reasonably foreseeable projects listed in Table 5.5-2 would result in new greenhouse gas emissions and may result in significant impacts related to greenhouse gas generation. However, all of the reasonably foreseeable projects would be consistent with existing zoning and land use designations within the City and Sacramento County’s General Plans and would be included in the City and Sacramento County’s General Plan EIRs. As such, cumulative impacts related to greenhouse gas generation for the projects listed in Table 5.5-2 have already been accounted for by the City and County’s General Plan EIRs and therefore not considered cumulatively significant.

Finding: Less than Cumulatively Significant

Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?

The proposed Project would not have significant impacts related to greenhouse gas generation. The thresholds of significance analyzed within Section 3.6 for greenhouse gas impacts are cumulative in nature, taking into consideration the State’s emission reduction goal per AB 32 and the California Air Resources Board’s Scoping Plan. Therefore, because the Project would have less than significant greenhouse gases impact, as analyzed within Section 3.6, greenhouse gas, the proposed Project would not generate a cumulatively considerable impact for greenhouse gases.

Finding: Less than Cumulatively Considerable
Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to greenhouse gas emissions. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

5.5.4.7 Hazards and Hazardous Materials

**What is the Geographic Scope for this resource area?**

The geographic scope of the potential cumulative impacts with respect to hazards and hazardous material is limited to areas within the physical footprint of a project area or in the case when a school is within a quarter mile of the proposed Project, the geographic scope is limited to that quarter mile area surrounding the proposed Project.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

Hazardous materials to be used during construction are of low toxicity and would consist of fuels, oils, and lubricants. Because these materials are required for operation of construction vehicles and equipment, BMPs would be implemented to reduce the potential for or exposure to accidental spills or fires involving the use of hazardous materials. Impacts from minor spills or drips would be avoided by thoroughly cleaning up minor spills as soon as they occur. While foreseeable projects have the potential to cause similar impacts, is it assumed these projects would also implement BMPs. Therefore, there would not be a significant cumulative impact.

**Finding:** Less than Cumulatively Significant

**Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?**

Hazardous materials utilized during operation include fuels, oils, and lubricants. The materials would be stored in accordance with regulatory requirements as disclosed in Section 3.7. Simultaneous construction of projects in Table 5.5-2 could also require the use of hazardous materials during construction. If these projects occurred in the immediate vicinity of the proposed Project, they could result in a cumulatively considerable potential risk of upset. However, the projects listed in Table 5.5-2 would not occur in the same project footprint as the proposed Project. Additionally, the proposed Project and the projects listed in Table 5.5-2 do not have high risk of wildfires due to the highly-urbanized nature of the City. Therefore, the proposed Project would not result in a cumulatively considerable increase in hazards.

**Finding:** Less than Cumulatively Considerable
**MCKINLEY WATER VAULT PROJECT**

Other CEQA Considerations  
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**Is Mitigation Feasible?**

The combined impacts of planned projects would not result in a significant impact to hazards and hazardous materials. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

**5.5.4.8 Hydrology and Water Quality**

**What is the Geographic Scope for this resource area?**

The geographic scope of the potential cumulative impacts with respect to hydrology and water is on a regional level because hydrology and water quality impacts are regional in nature. The geographic scope of the cumulative hydrology and water quality analysis is the vicinity of the Project site and the American River watershed.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

The cumulative projects listed in Table 5.5-2 may result in a cumulatively significant impact to regional hydrologic resources if, for example, flow alterations combined to either significantly reduce or increase flows in the region’s stream, rivers and canals. The proposed Project does not entail proposed flow increases and none of the projects listed in Table 5.5-2 have proposed flow increases. Furthermore, the proposed Project and the projects listed in Table 5.5-2 would be subject to Federal, State and local regulations designed to minimize cumulative impacts to water quality. Mitigation Measures implemented in the short-term (during construction of the proposed Project), in combination with compliance with Federal, state and local regulations, are expected to reduce potential short term combined impacts to hydrology and water quality to a less than significant level. The mitigation measures proposed in Hydrology and Water Quality (Section 3.8) of this EIR would reduce the proposed Project's impacts to water quality to a less-than-significant level.

The short-term impacts of the projects listed in Table 5.5-2 on hydrology and water quality are estimated to be less than significant or less than significant with mitigation incorporated. None of the construction projects are expected to occur simultaneously in the same location, and any short term cumulative impacts that would occur if that were not the case are considered to be less than significant due to the geographic separation of the projects from one another. Therefore, the proposed Project would have a less-than-significant cumulative impact on hydrology and water quality.

**Finding:** Less than Cumulatively Significant

**Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?**

The proposed Project would mitigate impacts to a less than significant level by avoiding detrimental impacts to hydrology and water quality and would not be cumulatively considerable given the small and
localized nature of the proposed Project and the potential impacts. Therefore, the proposed Project would not be cumulatively considerable and would not warrant additional mitigation.

**Finding:** Less than Cumulatively Considerable

**Is Mitigation Feasible?**

The combined impacts of planned projects would not result in a significant impact to hydrology and water quality. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

**5.5.4.9 Land Use and Planning**

**What is the Geographic Scope for this resource area?**

The geographic scope of the cumulative land use analysis is the project region (City). Land use decisions are made at the City level for the project region; therefore, the City is an appropriate geographic scope.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

The projects in Table 5.5-2 could both create and alleviate growth-related impacts in the City. Residential and other development-related projects will impact regional infrastructure, including impacts to finite resources such as wastewater treatment capacity and water supply. Transportation-related projects such as the Twin Rivers Transit-oriented Development and Light Rail Station Project will alleviate impacts associated with cumulative development. Water and wastewater infrastructure construction projects such as the proposed Project, 3rd and 9th Street Sewer Relief Projects, and the Water Treatment Plants Rehabilitation Project serve to alleviate impacts to existing infrastructure associated with increased development. The combined impacts of the cumulative infrastructure projects and the proposed Project would serve to lessen the impacts associated with past, present, and future development projects.

Short-term and long-term cumulative impacts to land use as a result of the projects listed in Table 5.5-2 would be less than significant. The cumulative infrastructure development of the proposed Project and the past and planned projects, would not individually or cumulatively physically divide a community or communities. All projects must be developed in accordance with applicable land use plans and policies. Applicable zoning ordinances and land-use regulations would not be affected as a result of the projects listed in Table 5.5-2. As a result, the proposed Project and the projects listed in Table 5.5-2 would have a less than significant cumulative impact.

**Finding:** Less than Cumulatively Significant
Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?

The combined impacts of the projects listed in Table 5.5-2 do not constitute a significant land use impact. In the event of a severe storm, the proposed Project would be in use and would act as a storage facility for excess water in the region. The stored combined sewer and storm flows would then be sent to the two pumping stations located to the west of the proposed Project site and then to the water treatment facility. The flows of wastewater to the Regional San WWTP, CWWTP, and Pioneer Reservoir would not be changed with the implementation of the proposed Project, they would simply be more controlled during severe storm events. Because there would no increase in flows to the nearest wastewater treatment plants, the proposed Project would not have a cumulatively considerable impact to land use.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to land use. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required

5.5.4.10 Noise and Vibrations

What is the Geographic Scope for this resource area?

The geographic scope of the potential cumulative impacts with respect to noise is limited to areas within the physical footprint of a project area. Noise impacts tend to be localized because ambient noise generally tends to dissipate within 0.25 mile, and existing noise from roadways tends to have a canceling effect on noise emanating from a project site; that is, the logarithmic properties of noise and distance usually mean there are no additive effects. Therefore, the area near the Project site (generally 0.25 mile) would be the area most affected by Project activities and is considered the geographic scope for the noise analysis.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

If the construction of projects in the region (Table 5.5-2) were to occur simultaneously when assessed in combination with the proposed Project they could have a cumulative impact to sensitive receptors surround McKinley Park. However, very few of the projects in the region would entail overlapping locations and construction schedules. The majority of the recent and proposed transportation projects, and the development projects (McKinley Village) are not within the same project vicinity as the proposed Project, thus their noise impacts would not compound to exceed a threshold, excessively vibrate the ground, cause substantial permanent increase in ambient noise, or expose neighbors of an airstrip to additional excessive noises. Additionally, the timing of these projects located nearest to the proposed
Project are not anticipated to be constructed at the same time as the proposed Project. Therefore, the potential cumulative impact from the projects in the region and the proposed Project would be less than cumulatively significant.

**Finding:** Less than Cumulatively Significant

**Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?**

As discussed above, the baseline recent past, current, and reasonably foreseeable future cumulative conditions, with the addition of the proposed Project, would not create a significant noise impact in the area, such as an increase in noise levels above local and regional thresholds. Therefore, the proposed Project would not result in a cumulatively considerable impact.

**Finding:** Less than Cumulatively Considerable

**Is Mitigation Feasible?**

The combined impacts of planned projects would not result in a significant impact to noise levels or vibration. The proposed Project does not add a cumulatively considerable impact to the combined project baseline, therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

**5.5.4.11 Public Services**

**What is the Geographic Scope for this resource area?**

The geographic scope of the cumulative public services analysis is the service area of each of the providers serving the proposed Project area. These are discussed under Public Services (Section 3.11) of this document and include several local fire districts, police departments, fire districts, school districts, water purveyors, and municipalities.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

The potential for the projects in the region (Table 5.5-2) combined with the proposed Project to cumulatively trigger new or larger demand on public services is considered less than cumulatively significant. This is because the proposed Projects listed in Table 5.5-2, including the proposed Project, would not be constructed simultaneously and do not entail high crime risks, added demand for school or parks, or require the addition of large numbers of workers to move to the area. In addition, the potential heightened risk for fire (and demand on fire departments) during construction is temporary and significantly curbed through the application of standard fire prevention and control mitigation. As such, combined demand on local police, fire, schools, parks, and other public facilities is considered less than significant. In addition, the operation of the combined projects, most notably the housing development projects, could create additional demand on local facilities; however, such facility expansions (i.e. new
parks and fire stations) are typically part of the proposed development project environmental documents and the impacts were contemplated and disclosed. The combined projects therefore would not trigger the need for new governmental facilities for which impacts have not been contemplated.

**Finding:** Less than Cumulatively Significant

**Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?**

As discussed above, the baseline recent past, current and reasonably foreseeable future cumulative conditions with the addition of proposed Project would not create a significant impact to public services. The proposed Project’s contribution to the cumulative less than significant impact to public services is also not cumulatively considerable, as it would not cause a significant incremental increase to the demand on public services beyond the thresholds assessed above.

**Finding:** Less than Cumulatively Considerable

**Is Mitigation Feasible?**

The combined impacts of planned projects would not result in a significant impact to public services. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

### 5.5.12 Recreation

**What is the Geographic Scope for this resource area?**

The geographic scope of the cumulative recreation analysis is the service area of each of the providers serving the proposed Project.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

The potential for projects in the region (Table 5.5-2) combined with the proposed Project to increase the use and accelerate the deterioration of existing neighborhood and regional parks and other recreational facilities or trigger new or expanded recreational facilities that could have an adverse environmental impact is limited, and thus considered a less than significant cumulative impact. Of the past, current and reasonably foreseeable projects in the region (Table 5.5-2), those that entail housing development are the most likely to increase pressures on existing recreational facilities, such as neighborhood parks. However, many of those planned developments, such as developments associated McKinley Village, include new parks with associated impacts analyses.

The addition of the proposed Project to the projects in the region (Table 5.5-2) would not create a cumulatively significant impact to recreational facilities. Against the baseline of cumulative projects in the region, the temporary construction impacts to the other projects in the region are not considered significant due to the short duration of potential construction impacts, and the fact that the proposed
Project would be constructed below ground and would have a minor above ground footprint. Therefore, the potential cumulative impact of projects in the region on recreation resources is considered less than significant.

**Finding:** Less than Cumulatively Significant

**Is the Proposed Project’s Incremental Contribution to the Combined Impact Cumulatively Considerable?**

As discussed above, the baseline recent past, current and reasonably foreseeable future cumulative conditions with the addition of the proposed Project would not create a significant impact to recreation. The proposed Project’s contribution to the cumulative less than significant impact is also not cumulatively considerable. Based on the environmental setting (Section 3.12.2), the sensitivity of the recreation resources, and the limited extent, as well as short term construction duration, the proposed Project would not cause a significant incremental increase to the demand on recreational resources beyond the thresholds assessed above, and, therefore, the effect would not be cumulatively considerable.

**Finding:** Less than Cumulatively Considerable

**Is Mitigation Feasible?**

The combined impacts of planned projects would not result in a significant impact to recreational resources. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

**Finding:** None Required

### 5.5.4.13 Transportation and Traffic

**What is the Geographic Scope for this resource area?**

The geographic scope of the cumulative traffic impacts analysis is generally considered to be the immediate project area surrounding the proposed Project.

**What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?**

The proposed Project combined with the projects in the region (Table 5.5-2), would not have a cumulative impact because: (1) the development projects include road upgrades to address their potential impacts, and (2) the proposed Project impact and much of the traffic impacts associated with other infrastructure-type projects are temporary and occur during construction. As such, these impacts are mitigated through construction-related traffic control plans. In addition, the projects in the region do not appear to have significant overlapping access footprints given their locations that would result in a cumulatively significant impact to key highways and roads. Therefore, the potential cumulative impact to transportation and traffic from past, current and reasonably foreseeable future projects is considered less than significant.

**Finding:** Less than Cumulatively Significant
Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?

As discussed above, the baseline recent past, current, and reasonably foreseeable future cumulative conditions with the addition of the proposed Project would not create a significant impact to transportation and traffic. The proposed Project’s contribution to this cumulatively less than significant impact is also not cumulatively considerable. In addition, implementation of the traffic control plan would help mitigate temporary traffic impacts. Furthermore, the proposed Project would be constructed over the course of two years, thereby dispersing the construction impacts over time. Therefore, based on the analysis in Transportation and Traffic (Section 3.13), the sensitivity of the transportation and traffic resources (i.e. current congestion), the limited project footprint, and the phased elements of the project, the contribution of the proposed Project to the cumulative impact to transportation and traffic resources would not cause a significant increase to the demand on these resources beyond the thresholds listed. Therefore, the impact of the proposed Project would not be cumulatively considerable.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to transportation and traffic resources. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required

5.5.4.14 Utilities and Services

What is the Geographic Scope for this resource area?

The geographic scope of the potential cumulative impacts with respect to utilities and service systems is limited to areas within the physical footprint of a project area.

What is the level of significance of the Combined Impact of the Proposed Project with the Projects listed in the Cumulative Impact Table?

The potential for the projects in the region (Table 5.5-2) combined with the proposed Project to cumulatively trigger new or larger demand for utilities, including stormwater facilities, is considered less than significant. This is because the proposed projects listed in Table 5.5-2, including the proposed Project, would not be constructed simultaneously. In addition, the operation of the combined projects, most notable the housing development projects could create additional demand on local facilities; however, such facility expansions are typically part of the proposed development project environmental documents and their impacts were contemplated and disclosed.

The potential for the projects in the region (Table 5.5-2) and the proposed Project to cumulatively exceed landfill demands is considered less than significant. Most of the projects in the region are construction, not demolition projects, and thus, do not entail significant landfill contributions. Most of the solid waste in
the area is transported to the Sacramento Recycling Transfer Station which is then transported to the Lockwood Landfill. The Sacramento Recycling Transfer Station has a permit capacity of 2,500 tons per day and the Lockwood Landfill does not have a maximum daily disposal limit, but does have a remaining capacity of 32.5 million tons with a planned expansion in the near future. As such, both the Sacramento Recycling Transfer Station and the Lockwood Landfill have the available capacity for the current and future regional projects (table 5.5-2) and would not trigger the expansion of solid waste handling. Therefore, this potential cumulative impact is considered less than significant.

In addition, the combination of projects in the region (Table 5.5-2) and the proposed Project would not trigger an unplanned exceedance of wastewater capacity or treatment requirements, non-compliance with solid waste or wastewater regulations, or result in the lack of sufficient water supply. The development projects in the region must each individually assess and confirm the availability of wastewater capacity and water supply prior to development. The local municipalities and water purveyors develop and expand water and wastewater treatment in accordance with General, Specific, and Master Plans. As such, the combined projects in conjunction with the proposed Project (which is, itself a wastewater storage facility), would not exceed water or wastewater treatment capacity and, therefore, there would be a less than significant cumulative impact to public services and utilities.

Finding: Less than Cumulatively Significant

Is the Proposed Project's Incremental Contribution to the Combined Impact Cumulatively Considerable?

As discussed above, the baseline recent past, current and reasonably foreseeable future cumulative conditions with the addition of proposed Project would not create a significant impact to public services and utilities. The proposed Project’s contribution to the cumulative less than significant impact to utilities is also not cumulatively considerable, as it would not cause a significant incremental increase to the demand on utilities beyond the thresholds assessed above.

Finding: Less than Cumulatively Considerable

Is Mitigation Feasible?

The combined impacts of planned projects would not result in a significant impact to utilities. The proposed Project does not add a cumulatively considerable impact to the combined project baseline. Therefore, no mitigation is necessary for cumulative impacts.

Finding: None Required
6.0 CEQA PREPARERS

As required by the California Environmental Quality Act (CEQA), this chapter identifies the preparers of this Environmental Impact Report (EIR).

Table 6.1-1 Draft EIR Preparers and Reviewers

<table>
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<tr>
<th>City Staff</th>
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<tbody>
<tr>
<td>Brett Grant, Department of Utilities, Supervising Engineer</td>
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<tr>
<td>James C. Yorita, Department of Utilities, Associate Civil Engineer and Project Manager</td>
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<tr>
<td>Tom Buford, Community Development Department, Acting Principal Planner</td>
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<td>Scott Johnson, Community Development Department, Associate Planner</td>
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</table>
The following includes the title and qualifications of each preparer and/or reviewer:

### Table 6.1-2 Preparer’s Qualifications

<table>
<thead>
<tr>
<th>Name</th>
<th>Expertise and Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consultant Staff</strong></td>
<td></td>
</tr>
<tr>
<td>Meredith Parkin</td>
<td>Senior Principal&lt;br/&gt;JD, Law; BS, Food Science</td>
</tr>
<tr>
<td>Kimberly Clyma</td>
<td>Senior Environmental Scientist&lt;br/&gt;JD, Law; BA, Environmental Studies; GIS Certificate</td>
</tr>
<tr>
<td>Daniel Breg</td>
<td>Principal Civil Engineer&lt;br/&gt;Professional Engineer; BS, Civil Engineering</td>
</tr>
<tr>
<td>Kate Gray</td>
<td>Environmental Scientist&lt;br/&gt;MS, Environmental Science and Policy; BS, Environmental Studies with focus on Sustainable Development</td>
</tr>
<tr>
<td>Dean Mochrie</td>
<td>Vice President, Environmental Services&lt;br/&gt;Certified Asbestos Consultant; BS, Business Management,</td>
</tr>
<tr>
<td>Morgan Kennedy</td>
<td>Vegetation Ecologist&lt;br/&gt;BA, Geography with a Biophysical Environment emphasis and minor in Geology; Wetland Delineator Certification</td>
</tr>
<tr>
<td>Meghan Oats</td>
<td>Biologist/Staff Scientist&lt;br/&gt;BS Biology and Environmental Science</td>
</tr>
<tr>
<td>Zory Pope</td>
<td>Environmental Planner&lt;br/&gt;BS, Environmental Protection and Management</td>
</tr>
<tr>
<td>Ashley Hallock</td>
<td>Archaeologist&lt;br/&gt;MA, Anthropology; BA, Anthropology</td>
</tr>
<tr>
<td>Garret Root</td>
<td>Senior Architectural Historian&lt;br/&gt;MA, Public History; BA, History</td>
</tr>
<tr>
<td>Mike Maddux</td>
<td>Technical Illustrator GIS/CAD/Graphics Specialist&lt;br/&gt;BS, Graphic Design</td>
</tr>
<tr>
<td>Ann Tolman</td>
<td>Project Manager Assistant&lt;br/&gt;AA, Administration of Justice</td>
</tr>
</tbody>
</table>
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Section 3.9: Land Use and Planning


Section 3.10: Noise


Section 3.11: Public Services


Section 3.12: Recreation


Section 3.13: Transportation and Traffic
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