APPENDIX

Appendix A NOTICE OF PREPARATION

A.1 NOTICE OF PREPARATION

A.2 COMMENTS RECEIVED

A.1 Notice of Preparation

City of SACRAMENTO
Community Development

300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Help Line: 916-264-5011
CityofSacramento.org/dsd

To:	Interested Persons	From:	Scott Johnson Community Development Department
File:	McKinley Water Vault Combined Sewer System Project	Date:	June 7, 2017

Reference: **NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE MCKINLEY WATER VAULT PROJECT**

COMMENT PERIOD

Wednesday June 7, 2017 – Friday July 7, 2017

SCOPING MEETING

Monday, June 19, 2017, Grand Hall, Clunie Community Center (see below)

INTRODUCTION

The City of Sacramento (City) is the Lead Agency for preparation of an Environmental Impact Report (EIR) for the City's proposed McKinley Water Vault (MWV, "Vault") Project (proposed Project). The EIR to be prepared by the City will evaluate potential significant environmental effects of the proposed Project and other actions associated with construction and operation of the proposed Project. Written comments regarding the issues that should be covered in the EIR, including potential alternatives to the proposed Project and the scope of the analysis, are invited.

The EIR for the proposed Project is being prepared in compliance with the California Environmental Quality Act (CEQA). Under CEQA, upon deciding to prepare an EIR, the City as lead agency must issue a Notice of Preparation (NOP) to inform trustee agencies, the public, and responsible agencies of that decision. The purpose of the NOP is to provide information describing the proposed Project and its potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the EIR. Agencies should comment on such information as it relates to their statutory responsibilities in connection with the project.

The EIR will provide an evaluation of potential environmental impacts associated with development of the proposed Project. The proposed Project location, description, and environmental issue areas that may be affected by development of the proposed Project are described below. The EIR will evaluate potentially significant environmental impacts of the proposed Project, on both a direct, indirect, and cumulative basis; identify mitigation measures that may be feasible to lessen or avoid such impacts; and identify alternatives that may lessen one or more potentially significant impact to the proposed Project.

Reference: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE MCKINLEY WATER VAULT PROJECT

SUBMITTING COMMENTS

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed Project should be directed to the City's environmental project manager at the following address by 5:00 p.m. on July 7, 2017 (Please note, public counter hours are 9:00 am – 4:00 pm). Please include the commenter's full name and address.

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

SCOPING MEETING

A public scoping meeting will be held on Monday, June 19, 2017, from 6:00 p.m. to 8:00 p.m. at the following location:

Grand Hall, Clunie Community Center
601 Alhambra Boulevard
Sacramento, CA 95816

Responsible agencies and members of the public are invited to attend and provide input on the scope of the EIR. Written comments regarding relevant issues may be submitted at the meeting.

PROJECT LOCATION/SETTING

Figure 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 MWV Project is located in East Sacramento in McKinley Park between Alhambra Boulevard, McKinley Boulevard, 33rd Street, and H Street. Figure 2 illustrates the proposed Project location.

PROJECT DESCRIPTION

PROJECT BACKGROUND

The City of Sacramento Department of Utilities (DOU) currently operates a complex combined sewer system network 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 is the legacy collection system in Sacramento that conveys stormwater runoff and wastewater within the same pipe network. The Clean Water Act National Pollutant Discharge

Reference: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE MCKINLEY WATER VAULT PROJECT

Elimination System (NPDES) permit is the regulatory mechanism that regulates the water quality and discharges of the combined sewer system. Staying in compliance with this permit requires the City to continually make progress toward the following level of service goals:

- No sewer outflows or street flooding during a 10-year storm event
- No property damage during a 100-year storm event

In the early 1990's, several high-intensity storms hit the Sacramento area and overwhelmed the City's combined sewer system. Following the event the Regional Water Quality Control Board issued a Cease and Desist Order in 1995 which required the City to eliminate the combined sewer outflows. At the time, the City conducted numerous studies and evaluations and developed the Combined Sewer System Improvement Plan (CSSIP). The plan included 28 projects to improve the City's aging wastewater and storm drainage system. The projects identified in the CSSIP were envisioned and designed to protect the community's health, safety, and quality of life.

In 2015, the Department of Utilities updated the 1995 CSSIP. The purpose of the 2015 CSSIP Update was to identify improvement projects that would help the operation of the combined sewer system meet the level of service goals required by Regional Water Quality Control Board and the NPDES permit. The 2015 CCSIP Update also met the requirement of the Environmental Protection Agency Combined Sewer Overflow Control Policy.

To meet the ongoing compliance requirements of the NPDES permit the City is required to implement the proposed Project which is consistent with the continued improvements and rehabilitation of the combined sewer system identified in the CCSIP. Non-compliance with the NPDES permit leaves the City susceptible to lawsuits, fines, and, possibly, a Cease and Desist order. A Cease and Desist order, similar to the one received in 1995, could require the City to stop all development activities until the order is removed.

PROPOSED PROJECT

As identified in the 2015 CCSIP Update, the City is evaluating the proposed MWV storage facility under the sports fields of McKinley Park, to reduce flooding within the area of East Sacramento by capturing surcharging storm and sewer flows, containing them, and slowly discharging them back into the combined sewer system once capacity is available. This type of storage would aid in reducing the amount of combined sewer overflows which can release storm water and sewage flow onto surface streets meeting the overall goal of the 2015 CSIPP Update and the discharge requirements of the NPDES permit.

The proposed Project consists of the construction of a below ground combined sewer system water vault and necessary appurtenant facilities. The underground MWV storage facility includes a 1,000,000-cubic feet storage structure approximately 300-feet wide by 270-feet long, or 270-feet in diameter with a depth of approximately 40-feet. The above-ground appurtenant facilities would be located adjacent to the storage facility and contain odor control equipment and electrical and control equipment cabinets.

Reference: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE MCKINLEY WATER VAULT PROJECT

The MWV would be connected, by inlet and outlet pipes, to the existing combined sewer system that surrounds McKinley Park. The 42-inch combined sewer system pipe under the jogging path along 33rd Street would be the closest to the proposed Project and is anticipated to be the location of one inlet and outlet pipe. An inlet pipe from McKinley Boulevard is also anticipated. From 33rd Street, the combined sewer system connects to the 57-inch pipeline flowing west under H Street and the park jogging path on the south side of the park.

During construction, the MWV would occupy a three- to four-acre footprint in the eastern area of McKinley Park. After construction is complete, the construction area would be returned to its original condition, and the permanent above-ground facilities would occupy an approximately 50-foot by 50-foot area of McKinley Park adjacent to the underground water vault. The MWV would be equipped with remote features and controls to allow for remote operation. Preventative maintenance activities would also be required including routine checking and periodic maintenance by DOU staff and contractors.

ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR will analyze potentially significant impacts that result from construction and operation of the proposed Project. The MWV falls within the scope of the 1997 EIR prepared for the Combined Sewer System Improvement Plan (CSSIP) and the 2035 General Plan and Master EIR (certified in 2015).

While the Project was included in the 1997 CSSIP EIR and 2035 General Plan Master EIR, the City has elected to conduct a project specific environmental analysis of the proposed Project to ensure project level detail is analyzed and provided to the public. Pursuant to section 15063(a) of the CEQA Guidelines, an Initial Study has not been prepared for the proposed project. The EIR will evaluate the full range of environmental issues contemplated for consideration under CEQA and the CEQA Guidelines, as well as non-environmental issues including:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise and Vibration
- Public Services
- Recreation

Reference: NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING FOR THE MCKINLEY WATER VAULT PROJECT

- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Growth Inducement
- Cumulative Impacts

Environmental issues not contemplated for consideration due to the determination that there will be no impact include:

- Agricultural and Forestry Resources
- Mineral Resources
- Population and Housing

The EIR will identify and evaluate alternatives to the proposed Project.

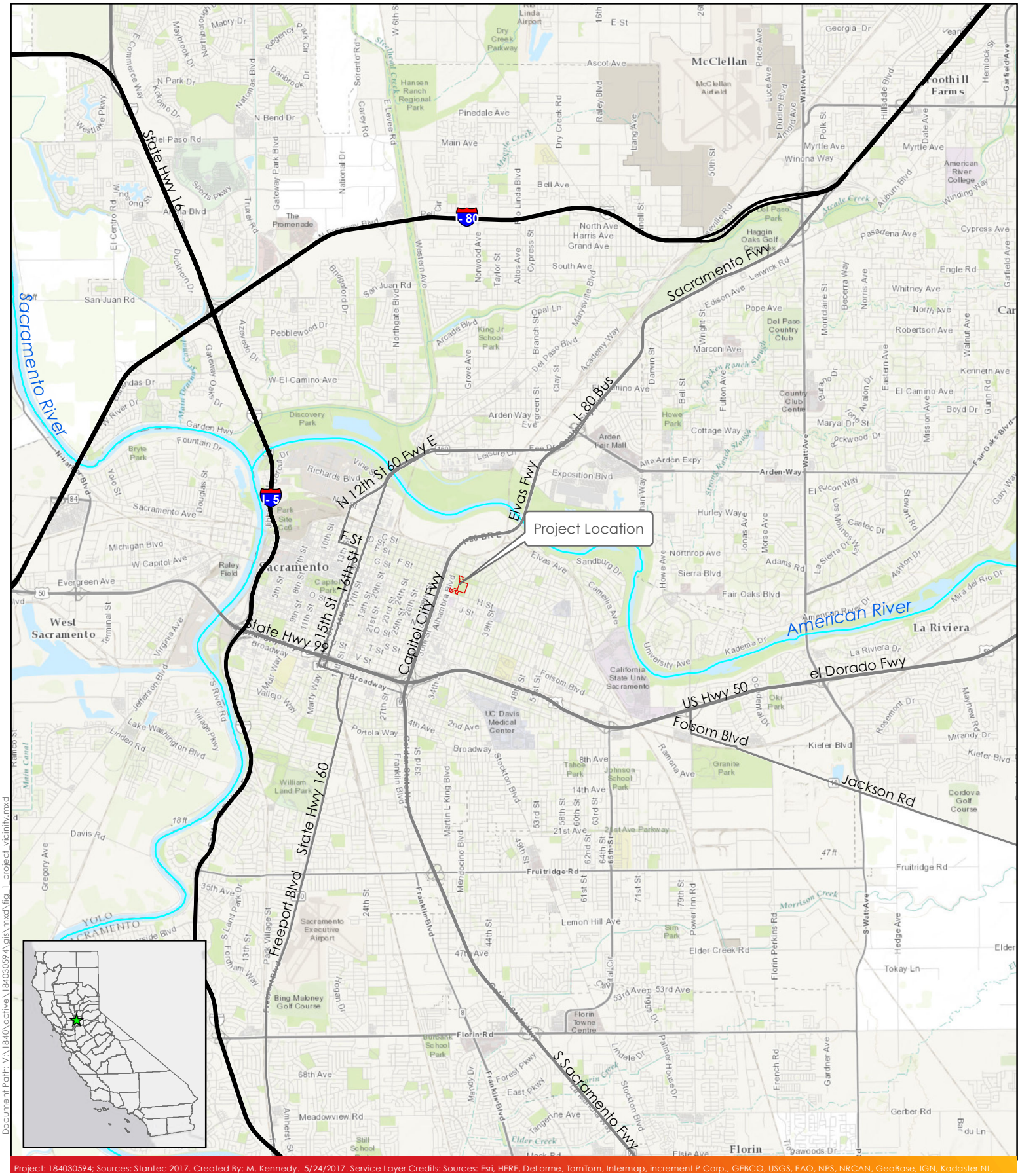
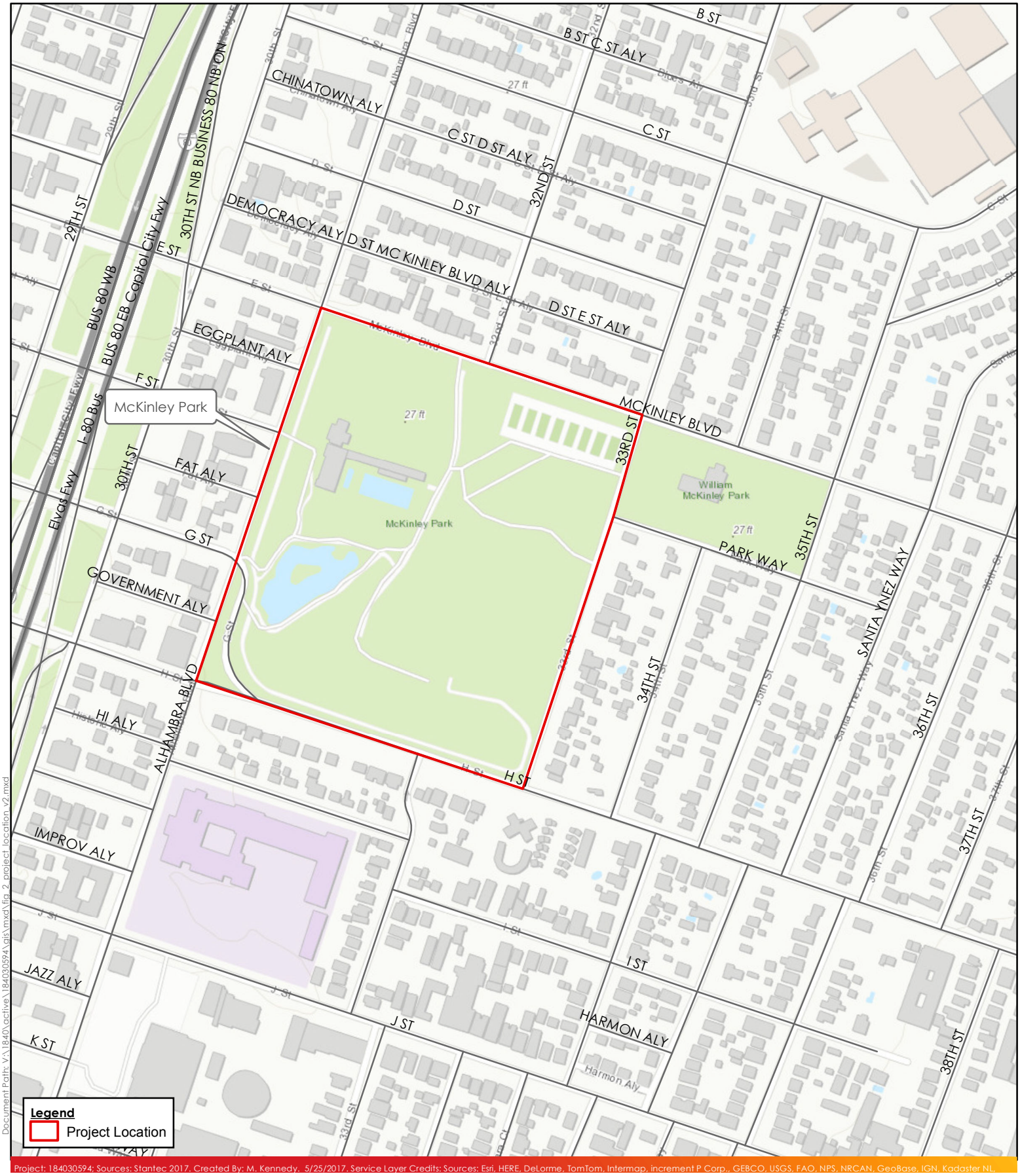


Figure 1
Project Vicinity

City of Sacramento
McKinley Water Vault Project



Project: 184030594; Sources: Stantec 2017. Created By: M. Kennedy. 5/25/2017. Service Layer Credits: Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL,

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Stantec

0 200 400 Feet

1 inch = 400 feet

Figure 2
Project Location

City of Sacramento
McKinley Water Vault Project

A.2 Comments Received

From: Sheya, Tanya@Wildlife [mailto:Tanya.Sheya@wildlife.ca.gov]
Sent: Wednesday, June 14, 2017 11:14 AM
To: Steve Johnson <sjohnson@cityofsacramento.org>
Cc: Wildlife R2 CEQA <R2CEQA@wildlife.ca.gov>
Subject: NOP for the McKinley Water Vault Project

Dear Mr. Johnson,

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation for the McKinley Water Vault Project (project), in the City of Sacramento. As trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of such species. CDFW may also be a responsible agency for a project affecting biological resources where we will exercise our discretion after the lead agency to approve or carry out a proposed project or some facet thereof.

The project proposes to construct a below ground combined sewer system water vault and necessary appurtenant facilities. The underground MWV storage facility includes a 1,000,000 cubic feet storage structure approximately 300 feet wide by 270 feet long or 270 feet in diameter with a depth od approximately 40 feet. The above ground appurtenant facilities would be located adjacent to the storage facility and contain odor control equipment and electrical and control equipment cabinets. The MWV would be connected to the existing sewer system that surrounds McKinley Park.

The project as described may have an adverse impact on the environment and must be evaluated in such a manner to reduce its impacts to biological resources. CDFW recommends that the EIR evaluate the following:

1. The project's impact upon wildlife and their habitat. CDFW recommends that the EIR identify natural habitats and provide a discussion of how the proposed project will affect their function and value.

2. The project's impact to special status species including species that are State and/or federal listed as threatened and endangered. CDFW is particularly concerned with the project's potential impacts on nesting migratory birds and raptors.

3. The project's cumulative impacts upon wildlife and vegetative resources. The EIR should provide an analysis of specific alternatives which reduce impacts to wildlife resources.

Pursuant to Public Resources Code Sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding this project. Written notifications should be directed to the address listed below. Thank you for the opportunity for early review of this project. If CDFW can be of further assistance, please contact me at (916) 358-2953 or Tanya.Sheya@wildlife.ca.gov.

Sincerely,

Tanya Sheya
Environmental Scientist

CALIFORNIA DEPARTMENT OF FISH and WILDLIFE
North Central Region | Habitat Conservation
1701 Nimbus Road | Rancho Cordova, CA 95670
Phone 916.358.2953 | Fax 916.358.2912
Tanya.Sheya@wildlife.ca.gov

Every Californian should conserve water. Find out how at:

SaveOurWater.com | *Drought.CA.gov*

29 June 2017

Scott Johnson
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

CERTIFIED MAIL
91 7199 9991 7036 7027 1878

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, MCKINLEY WATER VAULT PROJECT, SCH# 2017062015, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 7 June 2017 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environment Impact Report* for the McKinley Water Vault Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Caltrans Phase I MS4 Permit, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance (i.e., discharge of dredge or fill material) of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements (WDRs)

Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

Land Disposal of Dredge Material

If the project will involve dredging, Water Quality Certification for the dredging activity and Waste Discharge Requirements for the land disposal may be needed.

Local Agency Oversite

Pursuant to the State Water Board's Onsite Wastewater Treatment Systems Policy (OWTS Policy), the regulation of septic tank and leach field systems may be regulated under the local agency's management program in lieu of WDRs. A county environmental health department may permit septic tank and leach field systems designed for less than 10,000 gpd. For more information on septic system regulations, visit the Central Valley Water Board's website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/owts/sb_owts_policy.pdf

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the

Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of the waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock

Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

June 26, 2017

Scott Johnson
City of Sacramento
300 Richards Blvd.
Sacramento, CA 95811

Sent Via Email: srjohnson@cityofsacramento.org

RE: SCH# 2017062015, McKinley Water Vault Project, Sacramento County

Dear Mr. Johnson:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect 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. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public

agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions, please contact me at my email address: sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst
cc: State Clearinghouse

29 June 2017

Scott Johnson
City of Sacramento
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

CERTIFIED MAIL
91 7199 9991 7036 7027 1878

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, MCKINLEY WATER VAULT PROJECT, SCH# 2017062015, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 7 June 2017 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environment Impact Report* for the McKinley Water Vault Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,

the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15.01 at:
http://www.waterboards.ca.gov/centralvalleywater_issues/basin_plans/sacsjr.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan

(SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

For more information on the Caltrans Phase I MS4 Permit, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/caltrans.shtml.

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the

[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance (i.e., discharge of dredge or fill material) of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements (WDRs)

Discharges to Waters of the State

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

Land Disposal of Dredge Material

If the project will involve dredging, Water Quality Certification for the dredging activity and Waste Discharge Requirements for the land disposal may be needed.

Local Agency Oversite

Pursuant to the State Water Board's Onsite Wastewater Treatment Systems Policy (OWTS Policy), the regulation of septic tank and leach field systems may be regulated under the local agency's management program in lieu of WDRs. A county environmental health department may permit septic tank and leach field systems designed for less than 10,000 gpd. For more information on septic system regulations, visit the Central Valley Water Board's website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/owts/sb_owts_policy.pdf

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Regulatory Compliance for Commercially Irrigated Agriculture

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/app_approval/index.shtml; or contact water board staff at (916) 464-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100**. Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.70/Acre); the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an Individual Discharger under the Irrigated Lands Regulatory Program, call the

Central Valley Water Board phone line at (916) 464-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

Low or Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Dewatering and Other Low Threat Discharges to Surface Waters* (Low Threat General Order) or the General Order for *Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water* (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0074.pdf

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2013-0073.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of the waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit.

For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit3.shtml

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock

Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
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West Sacramento, CA 95691
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June 26, 2017

Scott Johnson
City of Sacramento
300 Richards Blvd.
Sacramento, CA 95811

Sent Via Email: srjohnson@cityofsacramento.org

RE: SCH# 2017062015, McKinley Water Vault Project, Sacramento County

Dear Mr. Johnson:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect 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. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public

agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions, please contact me at my email address: sharaya.souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst
cc: State Clearinghouse

SMUD®

Sent Via E-Mail

July 7, 2017

Scott Johnson
City of Sacramento
Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
srjohnson@cityofsacramento.org

Subject: Notice of Preparation of an Environmental Impact Report for the McKinley Water Vault Project (Clearinghouse No. 2017062015)

Dear Mr. Johnson:

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the McKinley Water Vault Project (Clearinghouse No. 2017062015). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the EIR for the McKinley Water Vault Project will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/business/customer-service/support-and-services/design-construction-services.htm
  - https://www.smud.org/en/do-business-with-smud/real-estate-services/transmission-right-of-way.htm
- Utility line routing
- Electrical load needs/requirements
- Energy Efficiency
- Climate Change
- Cumulative impacts related to the need for increased electrical delivery

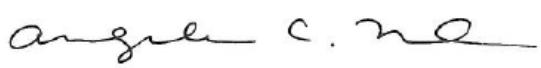
Based on our review of the NOP and our understanding of the proposed Project, the following issues should be considered during the Project design and planning and any associated impacts should be considered in the EIR:

- Existing facilities within the vicinity of the Project, including existing overhead facilities into the park from McKinley Boulevard at 32nd Street, and existing underground and pad-mounted facilities serving into the park along Alhambra Boulevard between McKinley Boulevard and Fat Alley.
- All structural setbacks shall be a minimum of 14-feet from the edge of the roadway right-of-way. Structural setbacks less than 14-feet may create clearance issues with SMUD facilities and the facilities of other utilities.
- The Applicant shall not alter existing SMUD facilities on the subject property. If the Applicant requires the relocation or removal of existing SMUD facilities, the Applicant shall coordinate with SMUD. The Applicant shall be responsible for the cost of relocation or removal.
- The Applicant shall not alter existing SMUD facilities on the subject property. If the Applicant requires the relocation or removal of existing SMUD facilities, the Applicant shall coordinate with SMUD. The Applicant shall be responsible for the cost of relocation or removal.
- SMUD reserves the right to use any portion of its easements on or adjacent to the subject property that it reasonably needs and shall not be responsible for any damages to the developed property within said easement that unreasonably interferes with those needs.

SMUD would like to be involved with discussing the above areas of interest as well as discussing any other potential issues. We aim to be partners in the efficient and sustainable delivery of the proposed Project. Please ensure that the information included in this response is conveyed to the Project planners and the appropriate Project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this Notice of Preparation. If you have any questions regarding this letter, please contact Rob Ferrera at rob.ferrera@smud.org or (916)732-6676.

Sincerely,



Angela C. McIntire
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
angela.mcintire@smud.org

Cc: Rob Ferrera, SMUD

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

Larry F. Greene
AIR POLLUTION CONTROL OFFICER

Sent via email only

June 27, 2017

Scott Johnson, Associate Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor, Sacramento, CA 95811
srjohnson@cityofsacramento.org

Subject: NOP for the McKinley Water Vault Project
SMAQMD #: SAC201701792

Dear Mr. Johnson:

Thank you for routing the McKinley Water Vault Project Notice of Preparation to the Sacramento Metropolitan Air Quality Management District. Our comments follow:

Construction and operational air quality impacts should be analyzed. The California Emissions Estimator Model (CalEEMod), the Roadway Construction Emissions Model (RCEM), and off-model calculations may be necessary to fully capture the emissions from this type of project. To reduce haul truck exhaust emissions, consider using tier 4 off-road equipment, late-model or repowered on-road equipment, and minimizing the distance and amount of haul truck trips. Also, due to the nature of this project, the City should analyze the potential for odors, especially during the operational phase.

The City may wish to analyze the potential impacts of construction emissions on nearby sensitive receptors. The Office of Environmental Health and Hazard Assessment (OEHHA) provides guidance on this topic in Section 8, page 17 here: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

Our Basic Construction Emissions Control Practices/Best Management Practices (Attachment 1) must be implemented regardless of the project's air quality significance level and all land use projects are subject to SMAQMD's rules and regulations at the time of construction (Attachment 2). A complete list and full description can be found at the following link: http://www.airquality.org/Businesses/Rules-Regulations. I've also attached a notice regarding permitted and unpermitted sources of toxic air contaminants (Attachment 3).

Tools, models, and additional guidance can be found on our website at http://www.airquality.org/Businesses/CEQA-Land-Use-Planning.

Please contact me at (916) 874-4876 or rdubose@airquality.org if you have questions.

Sincerely,

Rachel DuBose
Air Quality Planner

Attachments:

1) Basic Construction Emissions Control Practices/Best Management Practices
2) SMAQMD Rules and Regulations Statement
3) Notice: Permitted and Unpermitted Sources of Toxic Air Contaminants

Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor ▪ Sacramento, CA 95814-1908
Front desk: (916) 874-4800 ▪ fax (916) 874-4899 fax
www.airquality.org

Attachment 1

Basic Construction Emissions Control Practices/Best Management Practices

The following Basic Construction Emissions Control Practices are considered feasible for controlling fugitive dust from a construction site. The practices also serve as best management practices (BMPs), allowing the use of the non-zero particulate matter significance thresholds. Control of fugitive dust is required by District Rule 403 and enforced by District staff.

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

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

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

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

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

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

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

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

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

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

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Attachment 2

SMAQMD Rules & Regulations Statement (revised 1/2017)

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

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

Rule 201: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may require permit(s) from SMAQMD prior to equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact the SMAQMD early to determine if a permit is required, and to begin the permit application process. Other general types of uses that require a permit include, but are not limited to, dry cleaners, gasoline stations, spray booths, and operations that generate airborne particulate emissions.
Portable construction equipment (e.g. generators, compressors, pile drivers, lighting equipment, etc.) with an internal combustion engine over 50 horsepower is required to have a SMAQMD permit or a California Air Resources Board portable equipment registration (PERP) (see Other Regulations below).
Rule 402: Nuisance. The developer or contractor is required to prevent dust or any emissions from onsite activities from causing injury, nuisance, or annoyance to the public.
Rule 403: Fugitive Dust. The developer or contractor is required to control dust emissions from earth moving activities, storage or any other construction activity to prevent airborne dust from leaving the project site.
Rule 414: Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU PER Hour. The developer or contractor is required to install water heaters (including residence water heaters), boilers or process heaters that comply with the emission limits specified in the rule.
Rule 417: Wood Burning Appliances. This rule prohibits the installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments.
Rule 442: Architectural Coatings. The developer or contractor is required to use coatings that comply with the volatile organic compound content limits specified in the rule.
Rule 453: Cutback and Emulsified Asphalt Paving Materials. This rule prohibits the use of certain types of cut back or emulsified asphalt for paving, road construction or road maintenance activities.
Rule 460: Adhesives and Sealants. The developer or contractor is required to use adhesives and sealants that comply with the volatile organic compound content limits specified in the rule.
Rule 902: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of asbestos containing material.

Other Regulations [California Code of Regulations (CCR)]

17 CCR, Division 3, Chapter 1, Subchapter 7.5, §93105 Naturally Occurring Asbestos: The developer or contractor is required to notify SMAQMD of earth moving projects, greater than 1 acre in size in areas "Moderately Likely to Contain Asbestos" within eastern Sacramento County. The developer or contractor is required to comply with specific requirements for surveying, notification, and handling soil that contains naturally occurring asbestos.

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13 CCR, Division 3, Chapter 9, Article 5, Portable Equipment Registration Program: The developer or contractor is required to comply with all registration and operational requirements of the portable equipment registration program such as recordkeeping and notification.

13 CCR, Division 3, Chapter 9, Article 4.8, §2449(d)(2) and 13 CCR, Division 3, Chapter 10, Article 1, §2485 regarding Anti-Idling: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes. These apply to diesel powered off-road equipment and on-road vehicles, respectively.

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www.airquality.org

Attachment 3

Notice: Permitted and Unpermitted Sources of Toxic Air Contaminants

Lead Agencies should make a concerted effort to disclose potential TAC-related health impacts from:

- locating sources of TAC emissions in close proximity to existing or future planned receptors (e.g., gasoline dispensing facilities subject to District permits and non-permitted sources of TACs such as high traffic volume roadways), and,
- locating receptors in close proximity to an existing or future planned source of TAC emissions.

Permitted sources can be identified using SMAQMD's online Permitted Locations tool at http://www.airquality.org/businesses/permits-registration-programs/permitted-locations.

For more information, refer to Chapter 5 of our CEQA Guide.

Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor ▪ Sacramento, CA 95814-1908
Front desk: (916) 874-4800 ▪ fax (916) 874-4899 fax
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From:	Cherilyn Neider
To:	Scott Johnson
Cc:	Matthew Moore; Marcos Guerrero
Subject:	McKinley Water Vault Combined Sewer System Project
Date:	Friday, June 23, 2017 12:25:29 PM
Attachments:	2_Mitigation_Measures_CEQA_NativeAmericanMonitors.docx 3_Mitigation_Measures_CEQA_Discoveries.docx

Hello Scott,
I am writing in response to the City of Sacramento's letter regarding the McKinley Water Vault Combined Sewer System Project, notifying us of the preparation of the EIR for this project. Attached you will find mitigation measures recommended by United Auburn Indian Community (UAIC) for this project. We request that these measures are included in the environmental document and the adopted mitigation, monitoring and reporting program.

In addition, we would like to receive electronic copies of any archaeological reports that have been completed for this project in order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC.

Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn Neider

Cherilyn Neider
Administrative Assistant
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

Native American Monitoring Mitigation Measure

To minimize the potential for destruction of or damage to existing or previously undiscovered archaeological and Cultural resources and to identify any such resources at the earliest possible time during project-related earthmoving activities, THE PROJECT PROPONENT and its construction contractor(s) will implement the following measures:

- Paid Native American Monitors from culturally affiliated Native American Tribes will be invited to monitor the vegetation grubbing, stripping, grading, or other ground-disturbing activities in the project area to determine the presence or absence of any cultural resources. Native American Representatives from cultural affiliated Native American Tribes act as a representative of their Tribal government and shall be consulted before any cultural studies or ground-disturbing activities begin.

- Native American Representatives and Native American Monitors have the authority to identify sites or objects of significance to Native Americans and to request that work be stopped, diverted, or slowed if such sites or objects are identified within the direct impact area; however, only a Native American Representative can recommend appropriate treatment of such sites or objects.

Inadvertent Discoveries Mitigation Measures

- Develop a standard operating procedure, points of contact, timeline and schedule for the project so all possible damages can be avoided or alternatives and cumulative impacts properly accessed.

- If potential archaeological resources cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists, or other Project personnel during construction activities, work will cease in the immediate vicinity of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from an interested Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. These recommendations will be documented in the project record. For any recommendations made by interested Native American Tribes which are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

- If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman
John L. Williams, Vice Chairman
Calvin Moman, Secretary
Jason Camp, Treasurer
Gabe Cayton, Council Member

June 16, 2017

Scott Johnson
City of Sacramento
300 Richards Blvd. 3rd Floor
Sacramento, CA 95811

Subject: McKinley Water Vault Combined Sewer System Project

Dear Scott Johnson,

Thank you for requesting information regarding the above referenced project. The United Auburn Indian Community (UAIC) of the Auburn Rancheria is comprised of Miwok and Southern Maidu (Nisenan) people whose tribal lands are within Placer County and whose service area includes El Dorado, Nevada, Placer, Sacramento, Sutter, and Yuba counties. The UAIC is concerned about development within its aboriginal territory that has potential to impact the lifeways, cultural sites, and landscapes that may be of sacred or ceremonial significance. We appreciate the opportunity to comment on this and other projects in your jurisdiction. The UAIC would like to consult on this project.

We would like to receive copies of any archaeological reports that are completed for the project in order to ascertain whether or not the project could affect cultural resources that may be of importance to the UAIC. We also request copies of future environmental documents for the proposed project so that we have the opportunity to comment on potential impacts and proposed mitigation measures related to cultural resources. The information gathered will provide us with a better understanding of the project and cultural resources on site and is invaluable for consultation purposes. Finally, please contact us if you know of any Native American cultural resources within your project area or if you discover any.

Thank you again for taking these matters into consideration, and for involving the UAIC early in the planning process. We look forward to reviewing the documents requested above and consulting on your project. Please contact Marcos Guerrero, Cultural Resources Manager, at (530) 883-2364 or email at mguerrero@auburnrancheria.com if you have any questions.

Sincerely,

Gene Whitehouse,
Chairman

CC: Marcos Guerrero, CRM

From:	Tyler Babcock
To:	Scott Johnson
Cc:	Jami Correia-Babcock (jami_babcock@att.net); James C. Yorita
Subject:	RE: McKinley Water Vault Project [Including Attachments]
Date:	Friday, July 7, 2017 2:36:39 PM

Scott.

Thank you for your response to my questions.

Regarding your question about the 2,500 sf size of the "above ground facilities" for item #3 below – here is the paragraph from the notice of EIR preparation document:

During construction, the MWV would occupy a three- to four-acre footprint in the eastern area of McKinley Park. After construction is complete, the construction area would be returned to its original condition, and the permanent above-ground facilities would occupy an approximately 50- foot by 50-foot area of McKinley Park adjacent to the underground water vault. The MWV would be equipped with remote features and controls to allow for remote operation. Preventative maintenance activities would also be required including routine checking and periodic maintenance by DOU staff and contractors.

The reference above to "above ground" facilities is in conflict with your description of an underground structure.

It is my comment and recommendation, as a concerned neighbor/citizen who will be as impacted as anyone by this project, that the most important aspect of the project is the thoughtful location of the odor control facility and/or physical vent location. A strong consideration should be given to locating the oder control facility/vent in the vincinity of the most recently added restroom facilities – east of the playground and west of the picnic area. Anticipating a general wind direction of south/southwest, this would send potential fumes towards McKinley Blvd. (north/northeast) and skirt the east side of the Clunie Pool facility, bypass the picnic area and be dissapated before reaching McKinley Boulevard. The western edge of the tennis courts are in the path – but are buffered by the mesh fencing surrounding the courts.

I appreciate the opportunity to add my thoughts to the conversation prior to today's deadline. Thank you again for your kind response to my previous questions.

gtb

G. Tyler Babcock, AIA, LEED AP
Principal
MFDB Architects, Inc.
111 Scripps Drive
Sacramento, CA 95825
916-972-0131 (ext.17)
916-718-1354 cell
tbabcock@MFDB.com

From: Scott Johnson [mailto:SRJohnson@cityofsacramento.org]
Sent: Friday, June 30, 2017 10:52 AM
To: Tyler Babcock <TBabcock@mfdb.com>
Cc: Jami Correia-Babcock (jami_babcock@att.net) <jami_babcock@att.net>; James C. Yorita <JYorita@cityofsacramento.org>
Subject: RE: McKinley Water Vault Project [Including Attachments]

Dear Mr. Babcock,

[Resent to include Oak Park Before and After Photo attachment]
Thank you again for your questions. Questions such as these will improve our process, and the California Environmental Quality Act (CEQA) evaluation document, and are always welcomed. We will include these along with other received responses to the Notice of Preparation for the project. Please find responses in red below. If you have any further comments of issues you feel should be evaluated in the environmental impact report (EIR), please provide them by July 7, 2017.

1. The impacted footprint is identified as 3-4 acres during construction (sounds like most of the fields across from our house - between the access drive north of the Rose Garden; to the picnic area north of the playfield; east of the horseshoe pits and west of the jogging path). Is that roughly correct? The location described is the approximate location for the project
2. Are there any changes to the location or orientation of existing park features, like the ballfield, when the project is finished? Currently there are no proposed changes to the location or orientation of the existing park features. Do you have any suggestions on what should change?
3. The report identifies a new permanent 2,500 sf structure that will house electronic control cabinets and odor control equipment. Where is the proposed location of that new permanent facility? What does that structure look like (scale, roof profile, materials, colors, finishes, etc.)?
   The odor control facility will likely be located underground and towards the center of the park. No final decision has been made on location of the odor control facility. Where did you read that it will be 2,500 sf?
4. With the inlets and outlets from the existing combined sewer and storm water systems described, it sounds like the storage facility will constantly be a part of the overall system (filled to some degree with water and sewer influent) regardless of whether it is a storm condition or not. Is that accurate? That is not accurate. The Vault will be an offline structure and it will only be filled during storm events. Dry weather sewage flows will not be high enough to pass over the inlet weir that allows combined wastewater to enter the Vault.
5. If it is true that the storage facility will be consistently utilized (storm or not) then it is true that the ***potential for an odor problem*** will also be ever-present. In fact, during the summer when there is little rain (storm water) in the system, the primary materials in the storage tank will be sewer influent. Is that accurate? Please see response to question #4.
6. What are the specific features of the finished system that have the potential to dissipate odor? If it is solely the odor control equipment vents, that location is immensely important to us. If there are other "vents" where odor could be present, then we are interested to know those exact locations as well. Venting air will go through the odor control facility. Venting is

typically manifolded into a single discharge point (at the odor control facility)

7. We understand that a similar facility was constructed recently (within the last 10 years?) in the Oak Park neighborhood. Is that correct? Yes Have there been any complaints from the neighborhood since the storage system was activated? I checked with the project manager for that project and our maintenance department and there have been no complaints from the neighborhood. What is the nature of those complaints? Are there any lessons learned from that project that are being incorporated into this project?
8. We heard that there have been some issues with the success of the plantings over the storage facility in Oak Park. Is that true? Attached is a picture I took on 6/13/17 of the facility. How will this project avoid potential issues with the maintenance and upkeep of the landscaping intended to return the park area to a similar quality as before the project? We met at your neighbor's house (Cecily Hastings) to discuss similar concerns. We are working closely with Parks and the community to understand potential impacts so that we can reduce impacts to the park.
9. We heard there was a great deal of airborne dirt that impacted the neighborhood in Oak Park during the construction period. Understanding that this is the nature of a project like this, is anything more being proposed than the typical water trucks dowsing the dirt during excavation and grading activities to reduce this anticipated problem? At the beginning of the Oak Park project there was an issue with excessive dust. The City worked with the contractor to find a remedy to the problem, which included water trucks and visqueen to cover stock piles. We are at the beginning of the EIR process, we will have more information on air quality and how the City will reduce dust when the EIR is completed.
10. What is the proposed route of dump trucks and construction vehicle activities during construction? This is important because of the obvious influence this has on the additional distribution of dirt and debris to the neighborhood common to projects like this. We do not have a proposed route yet. We are evaluating the site to determine the least impactful route for construction traffic.
11. During the excavation period, where are the dump trucks waiting their turn to enter the site anticipated to be staged? We do not have planned staging area at this time. We will be evaluating traffic impacts in the EIR to reduce the impact to the park and the community.
12. What is the scheduled duration of the construction, once it gets started? Has the project been awarded? If it has, who is the successful contractor? The anticipated schedule is for construction to start in the Spring of 2019 and for it to be completed in the Winter of 2020. The project has not gone to bid yet. The timeline on the project website will be continually updated throughout the project. http://www.cityofsacramento.org/McKinleyWaterVault

Thank you,

Scott Johnson
City of Sacramento
Community Development Department
Environmental Planning Services
300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

(916) 808-5842
srjohnson@cityofsacramento.org

From: Tyler Babcock [mailto:TBabcock@mfdb.com]
Sent: Monday, June 12, 2017 11:57 AM
To: Scott Johnson <SRJohnson@cityofsacramento.org>
Cc: Jami Correia-Babcock (jami_babcock@att.net) <jami_babcock@att.net>
Subject: McKinley Water Vault Project

Hi Scott.

As a neighbor living on 33rd Street (701 33rd Street, Sacramento, CA 95816), 6 houses north of H Street, directly across from the proposed project – my family and I have a particularly keen interest in this project. Unfortunately, we will be away on June 19th and unable to attend the scoping meeting. I have downloaded the EIR notice, found at the City's website, and have a few questions based on my review of that document.

1. The impacted footprint is identified as 3-4 acres during construction (sounds like most of the fields across from our house - between the access drive north of the Rose Garden; to the picnic area north of the playfield; east of the horseshoe pits and west of the jogging path). Is that roughly correct?
2. Are there any changes to the location or orientation of existing park features, like the ballfield, when the project is finished?
3. The report identifies a new permanent 2,500 sf structure that will house electronic control cabinets and odor control equipment. Where is the proposed location of that new permanent facility? What does that structure look like (scale, roof profile, materials, colors, finishes, etc.)?
4. With the inlets and outlets from the existing combined sewer and storm water systems described, it sounds like the storage facility will constantly be a part of the overall system (filled to some degree with water and sewer influent) regardless of whether it is a storm condition or not. Is that accurate?
5. If it is true that the storage facility will be consistently utilized (storm or not) then it is true that the ***potential for an odor problem*** will also be ever-present. In fact, during the summer when there is little rain (storm water) in the system, the primary materials in the storage tank will be sewer influent. Is that accurate?
6. What are the specific features of the finished system that have the potential to dissipate odor? If it is solely the odor control equipment vents, that location is immensely important to us. If there are other "vents" where odor could be present, then we are interested to know those exact locations as well.
7. We understand that a similar facility was constructed recently (within the last 10 years?) in the Oak Park neighborhood. Is that correct? Have there been any complaints from the neighborhood since the storage system was activated? What is the nature of those

complaints? Are there any lessons learned from that project that are being incorporated into this project?

8. We heard that there have been some issues with the success of the plantings over the storage facility in Oak Park. Is that true? How will this project avoid potential issues with the maintenance and upkeep of the landscaping intended to return the park area to a similar quality as before the project?
9. We heard there was a great deal of airborne dirt that impacted the neighborhood in Oak Park during the construction period. Understanding that this is the nature of a project like this, is anything more being proposed than the typical water trucks dowsing the dirt during excavation and grading activities to reduce this anticipated problem?
10. What is the proposed route of dump trucks and construction vehicle activities during construction? This is important because of the obvious influence this has on the additional distribution of dirt and debris to the neighborhood common to projects like this.
11. During the excavation period, where are the dump trucks waiting their turn to enter the site anticipated to be staged?
12. What is the scheduled duration of the construction, once it gets started? Has the project been awarded? If it has, who is the successful contractor?

Scott, we appreciate your time to address our questions and apologize that we won't be able to attend the next scheduled neighborhood meeting. We hope the meeting goes well. Thanks again.

gtb

G. Tyler Babcock, AIA, LEED AP
Principal
MFDB Architects, Inc.
111 Scripps Drive
Sacramento, CA 95825
916-972-0131 (ext.17)
916-718-1354 cell
tbabcock@MFDB.com

From: rick feher
To: James C. Yorita; Scott Johnson; Tom Buford; Breg, Daniel
Subject: sutter fort slough, mckinley park
Date: Wednesday, June 21, 2017 2:43:17 PM
Attachments: 1929_2907.pdf

For James Yorita, Scott Johnson, Tom Buford, City of Sacramento; and Daniel Breg, Stantec

re "McKinley Water Vault" proposed project

James, Scott, Tom, Daniel,

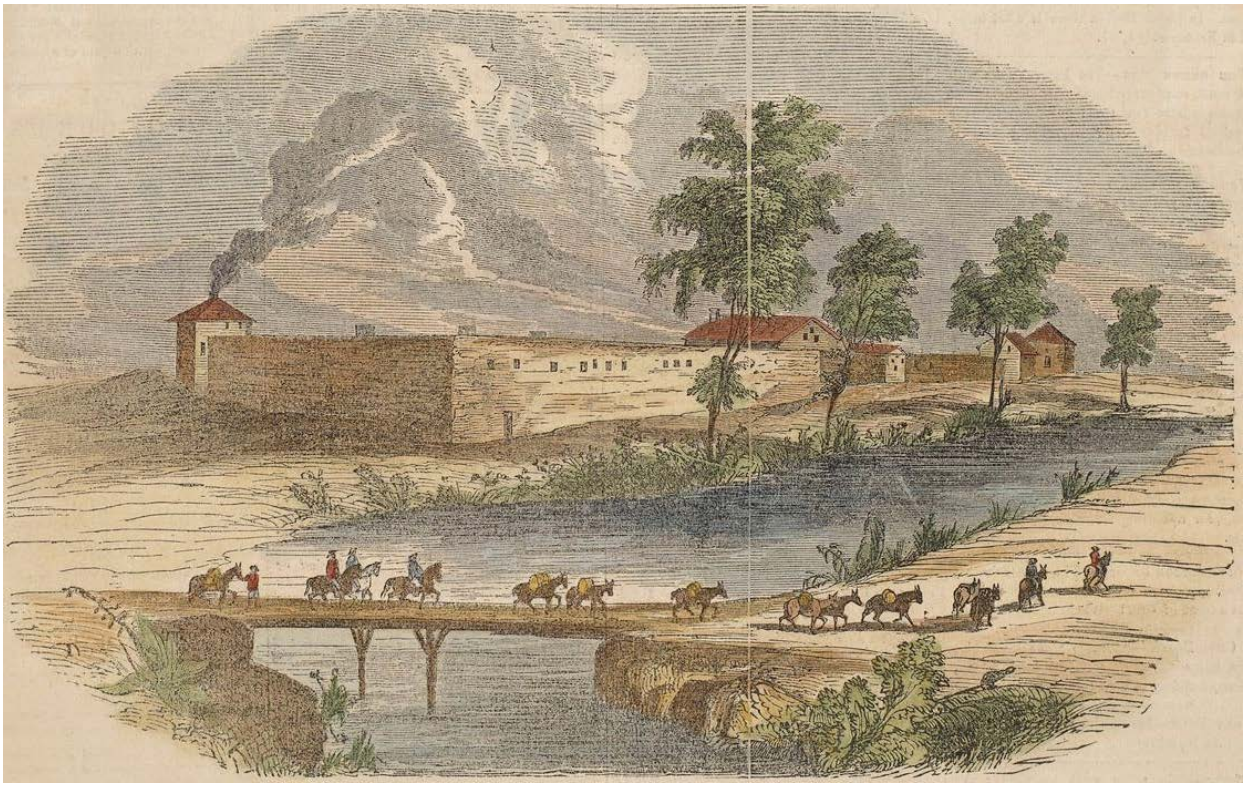
Here are images of an 1857 map—the one we looked at Monday evening—and an early illustration of Sutter's Fort, showing the slough. Underlying geological conditions became less obvious after Burns Slough (earlier Sutter Fort Slough according to this map) was "reclaimed" from the local watershed.

Thanks,

Rick Feher
(916) 455 2039

http://www.sacramentohistory.org/search.php?imageid=1929

https://upload.wikimedia.org/wikipedia/commons/a/a4/Sutter%27s_Fort_from_Gleason%27s_Pictorial_Drawing_Room_Companion.jpg



From:	rick feher
To:	Scott Johnson
Cc:	James C. Yorita; Tom Buford; Breg, Daniel
Subject:	two maps, McKinley Water Vault EIR scoping; planning & design
Date:	Friday, July 7, 2017 3:54:54 PM
Attachments:	EAST SAC HISTORICAL MAP AERIAL 1857.pdf EAST SAC HISTORICAL MAP2 1857.pdf

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Scott Johnson, Associate Planner
City of Sacramento Community Development Department
300 Richards Blvd., Third Floor
Sacramento, CA 95811

cc: James Yorita, Tom Buford, City of Sacramento; and Daniel Breg, Stantec

re McKinley Water Vault proposed project, draft EIR scoping, and conceptual design

Scott, James, Tom, Daniel,

Below are maps derived from the 1857 surveyor's map that you have seen. Included in my earlier email is a link to an archived image of the original; the original is at the California State Library.

These two maps, with overlays, have been helpfully provided by Chris Baker, who runs the Cartography Department for Sacramento County's Planning and Environmental Review Division.

Thanks,

Rick Feher
401 39th Street
Sacramento, CA 95816
(916) 455 2039

1857 map with a satellite/aerial view showing Burns Slough / Sutter Fort Slough at McKinley Park.

1857 map showing Burns Slough / Sutter Fort Slough in relation to Sacramento's current street grid.

MAP
OF
RUTTE, MULDROW & SMITH'S
GARDENS

Surveyed and Drawn by J. W. Goodacre Civ. Engr.
7th Oct 1857 Sacramento 07 K Street
Scale 4 Chains to 1 Inch.

SACRAMENTO ABSTRACT AND TITLE CO.

AMERICAN RIVER BIKE TRL

AMERICAN RIVER

Norris' Bridge

Site of Ferry House according to Ogden

Old Ogden

Levee

Fence

Embankment

SCULLOW'S FERRY

ERLEWINE CIR

LAND Sold by J. A. SUTTER to Wm. MULDROW

LAND Sold by J. A. Sutter to Wm. Muldrow

BAKER TRACT
or
SMITH'S GARDEN
50 ACRES

PENNINGS WAY

BEATH ST

FORNEY WAY

PEDDER ST

BEATH ST

BENDER ST

FISCHER CHER ST

FONSECA ST

DEFOREST WAY

MCKINLEY VILLAGE WAY

DULLANTY WAY

LAVATT ST

Wm. MULDROW

ALVAS AVE

312 ACRES

CASTLEWOOD TERRACE WAY

RUTTER, RUTTE & Co's
PURCHASE from SUTTER
as surveyed by H Custer C E and called 253 Acres in Deed of Sale
but amounting to 250 Acres on this Map of Survey

Birth House

Ferry

Ballard House

W. Muldrow's Old Residence

Dispensation

Telegraph House

W. Muldrow

BREUNER AVE

TEICHERT AVE

MAKONIAN TRACT
50 22 Acres

MODDISON AVE

CARRINGTON ST

SANDBURG DR

JEROME WAY

ROGER WAY

MINERVA AVE

SPILMAN AVE

CALLISTER AVE

SHEPARD AVE

CAMELLIA AVE

BETTY WAY

MONALEE AVE

ARDEN DR

ARDEN WAY

2ND ST

BLUES ALY

CHINATOWN ALY

B ST

C ST

D ST

E ST

F ST

CST D ST ALY

DEMOCRACY ALY

WATSON

SANTA LYNEZ WAY

PRIMROSE WAY

TAYLOR WAY

IRENA WAY

TAHOE WAY

MEISTER WAY

COLOMA WAY

FALCOMAN

REID WAY

JERRY WAY

BRAND WAY

BRAND WAY B ST ALY

A ST B ST ALY

FITCH

LAGOMARSINO WAY

32ND ST

ARMSTRONG

MATAMBRA BLVD

PARK WAY

GOVERNMENT ALY

HISTORIC ALY

MCKINLEY BLVD

HARTLEY GRIM & MONSON

SAN MIGUEL WAY

SAN ANTONIO WAY

EGGPLANT WAY

LA PERSALL WAY

PGE WAY

JUNIPER WAY

SACRAMENTO ABSTRACT AND TITLE CO.

0 250 500 1,000
Feet

MAP
OF
RUTTE, MULDROW & SMITH'S
GARDENS

Surveyed and Drawn by J. W. Goldtree Civ. Eng.
7th Oct 1857 Sacramento 67 K Street
Scale 4 chains to 1 Inch.

SACRAMENTO ABSTRACT AND TITLE CO.

AMERICAN RIVER BIKE TRL

SACRAMENTO ABSTRACT AND TITLE CO.

AMERICAN

RIVER

LAND sold by J. A. SUTTER to Wm. MULDROW

LAND sold by J. A. Sutter to Wm. MULDROW

Morris' Bridge

Site of Ferry House according to Clark

Old Cypress

Lake Bed

Sand Bar

Muldrow's Ferry Road

ERLE TYNE CIR

FORNEY WAY

BEATH ST

TROOM COURT

DEFOREST WAY

MCKINLEY VILLAGE WAY

DULLANTY WAY

FISHER CIRCLE

ROSECLA ST

LINATT ST

Wm. MULDROW

ALVAS AVE

CASTLEBERRY WAY

212.5 ACRES

RUSSELL, RUTTE & Co's

PURCHASE from SUTTER

as surveyed by W Custer C.E. and called 253 Acres on Deed or Sale but amounting to 250 Acres on the Map of Survey

RENNIE WAY

PRIMROSE WAY

TAYLOR WAY

BAKER TRACT

or

SMITHS GARDEN

30 ACRES

JENNINGS WAY

BEATH ST

BREUNER AVE

MAKONICAN TRACT

50 96 Acres

LEICHERT AVE

MODDISON AVE

CARRINGTON ST

SANDBURG DR

JEROME AVE

MIVERA AVE

ROGER WAY

SPILMAN AVE

CALLISTER AVE

SHEPARD AVE

CAMELLIA AVE

BETTY WAY

MONTAGUE AVE

ARDEN DR

BLUES ALY

CHINATOWN ALY

B ST

C ST

D ST

E ST

F ST

2ND ST

3RD ST

4TH ST

5TH ST

6TH ST

7TH ST

DEMOCRACY ALY

WATSON ST

SACRAMENTO

A STREET

B Street

E Street

FAT ALY

MATAMORA ROAD

GOVERNMENT ALY

HISTORIC ALY

MCKINLEY BLVD

PARK WAY

36TH WAY

36TH ST

37TH WAY

37TH ST

38TH ST

39TH ST

SAN ANTONIO WAY

SAN JUAN WAY

SAN LUIS WAY

SAN MATEO WAY

SAN PABLO WAY

SAN RAFAEL WAY

SAN SIMEON WAY

SAN TOMAS WAY

SAN YSIDRO WAY

SAN ANDREAS WAY

SAN BENITO WAY

SAN CARLOS WAY

SAN DIEGO WAY

SAN FELIPE WAY

SAN GABRIEL WAY

SAN JACINTO WAY

SAN JOSE WAY

SAN LEANDRO WAY

SAN LORENZO WAY

SAN MARCOS WAY

SAN MARINO WAY

SAN PASQUAL WAY

SAN PEDRO WAY

SAN RAMON WAY

SAN VICENTE WAY

SAN YGNACIO WAY

SAN ANTONIO WAY

SAN JUAN WAY

SAN LUIS WAY

SAN MATEO WAY

SAN PABLO WAY

SAN RAFAEL WAY

SAN SIMEON WAY

SAN TOMAS WAY

SAN YSIDRO WAY

SAN ANDREAS WAY

SAN BENITO WAY

SAN CARLOS WAY

SAN DIEGO WAY

SAN FELIPE WAY

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SAN JOSE WAY

SAN LEANDRO WAY

SAN LORENZO WAY

SAN MARCOS WAY

SAN MARINO WAY

SAN PASQUAL WAY

SAN PEDRO WAY

SAN RAMON WAY

SAN VICENTE WAY

SAN YGNACIO WAY

LAND FILLED BY SUTTER & OTHERS PRIOR TO 1857

From: rick feher
To: Scott Johnson
Cc: James C. Yorita; Tom Buford; Breg, Daniel
Subject: McKinley Water Vault EIR scoping; also planning & design
Date: Friday, July 7, 2017 3:55:10 PM

Scott Johnson, Associate Planner
City of Sacramento Community Development Department
300 Richards Blvd, Third Floor
Sacramento, CA 95811

cc: James Yorita, Tom Buford, City of Sacramento; and Daniel Breg, Stantec

re McKinley Water Vault proposed project—EIR scoping; conceptual design

Scott, James, Tom, Daniel,

These comments, conveyed by email, are intended as scoping considerations for the draft EIR. They are also for inspiration in the conceptual design.

The coincidence of siting a large-capacity cistern in a place where a slough has been "reclaimed," presents an interesting opportunity. The common wisdom seems to be that a shallow stratum of hardpan soil which is ubiquitous locally would tend to cancel the notion of groundwater recharge or render it less feasible. Upon seeing the remarkable coincidence that the meadow and baseball-diamond area of McKinley Park was chosen for the site of a cistern, and knowing this is the course of Burns Slough, I suspected we may have an opportunity to do something at once more modern and incorporating more evolved environmental awareness and wisdom. This optimism is based upon observations over a period of years since I became aware of Burns Slough / Sutter Fort Slough. This slough and many other riparian and wetland geographical features in and near the downtown area have been filled in, paved over, built upon, etc., yet only superficially eliminated. I think it is likely the capacity, both for absorption into active and latent sediments of the slough, and deeper groundwater recharge, is very large.

On early impressions, benefits of this vision for the McKinley Water Vault project may include:

— little to zero impact or reliance on combined storm water/sewage infrastructure or to sewer capacities and treatment facilities;

— greatly lessened stress for trees in McKinley Park and for nearby trees because the riparian ecosystem may be enhanced, not disrupted;

— access to funding such as climate-change mitigation incentives, urban forestry grants, funds for groundwater recharge and maintenance—all hypothetical, yet likely in the current political climate (in California at least);

— greater collaboration with city, county and regional groups such as the City's Urban Forestry section, Sacramento Area Creeks Council, *and other groups and citizens* focused on water, health, environment, public safety, and climate change in and out of public service;

— positive publicity and exposure as an ecologically sensitive *and* beneficial *and* transformative project.

Thank you,

Rick Feher
401 39th Street
Sacramento, CA 95816
(916) 455 2039

From: Mary French
To: Scott Johnson
Subject: EIR Preparation Notice - McKinley Park cistern
Date: Wednesday, June 21, 2017 10:24:18 PM

I am writing to comment on the preparation notice for the McKinley Park cistern. I walk in the park frequently and I live in East Sacramento.

The preparation notice is unusually brief to the point that the public is deprived of a fair opportunity to comment on the preparation notice/scoping of project. It is unclear how the odors would be controlled and what the permanent above ground facility would include. Noise from the equipment is not compatible with the area and the equipment would be unsightly and replace what is now parkland.

The location is completely inappropriate for a project of this size. McKinley Park is heavily used every day and is in a residential area. The odors from this facility and the proposed erection of a 50 x 50 foot permanent above ground facility are not suitable for the area. The need for additional sewage/water storage in the event of a flooding event does not support that this project needs to be underground at McKinley Park. The additional sewage/water capacity can be added no matter where this facility is built; it can also be added in a smaller facility or several smaller facilities. It is misleading to state that this facility is being build for local flood control when in fact the purpose is much broader and the minor flood control benefit, if any, could be achieved in another location. Certainly 1 million cubic feet of storage is not needed in this particular location.

McKinley Park should not be under construction for years while this incredibly huge facility is built. Even the duck pond renovation, a simple project, has taken months and deprived many citizens of the enjoyment and use of part of the park. This cistern project would be incredibly disruptive. It would also be messy and dangerous. I do not have confidence that this project would be completed in a way that preserves the quality of life or character of the neighborhood.

Finally, it is misleading to suggest that the project would include “improvements” of an unspecified nature. Any improvements would not outweigh the negatives of having this smelly gigantic cistern under McKinley Park.

Alternatives - only the most vague information has been provided about alternative locations. Other locations need to be considered specifically before this project goes further. Alternative locations must be identified and selected to avoid the negative impacts from the proposed facility. This includes consideration of smaller facilities in more than one location.

Sincerely,

Mary French

mmmfrench@comcast.net

Scott Johnson

Subject: RE: Grey water

From: Matt Hansen <mahansen42@gmail.com>
Sent: Tuesday, June 13, 2017 2:17 AM
To: McKinleyWaterVault
Subject: Grey water

Will the water vault also be designed to provide grey water to the irrigation and toilets for McKinley park? Because that would be awesome.

Matt Hansen

From: carol cleland
To: Scott Johnson
Subject: McKinley water vault
Date: Monday, June 26, 2017 12:35:51 PM

Hello Mr. Johnson

I would like to comment on the McKinley Water Vault.

1. Don't turn a park in to a sewer. Yes, a sewer.

2. It's not a "water " vault if it contains sewage.

3. There should be no need for extra capacity for a long established neighborhood.

4. If the need is due to the new subdivision next to Capitol Freeway, the developer should find a solution that does not impact what should be a city park jewel, and pay for the alternate solution.

5. Don't dig.

Kit Cleland
716 34th St
Sacramento, Ca., 95816
916 446 7423

From: ssmith3@surewest.net
To: Scott Johnson
Subject: McKinley Water Vault EIR and related issues
Date: Saturday, July 1, 2017 6:50:42 PM

Disruption during the construction phase, though concerning, aside,

the long term issues with this project are serious and have not been

adequately addressed. Some include the following:

1) The scale of the project is huge, and inappropriate for the location of it in McKinley Park itself. This park will inevitably be damaged by having sewage stored

for undetermined lengths of time underneath a field heavy used by small children (e.g. soccer practices), college age groups (Australian football and Frisbee teams),

Adult Soccer games, and general recreation. This area is heavily used and the project cannot guaranteed that the aftereffects of storm water and sewage collection

will not impact the general area with odors and possible failures of the ground cover above the vault over time.

2) The systems to control and clean the vault will inevitably fail over time. During physical budgetary retrenchments in Sacramento City government, staffing

has been cut drastically in the past, and will undoubtedly affect the Department of Utilities and Parks and Recreation quite negatively. Without proper staff

to clean and maintain the equipment in anticipation of storms, during and especially after, when large amounts of sewage will be stored underneath the area of the

McKinley Park ball field, the quality of the park will severely deteriorate due to odors, and possible other unanticipated breakages leading to uncontrolled flooding and

dispersal of the effluent into the neighborhood.

3) This project is being showcased as an effort to 'save' McKinley Park streets from storm flooding, while in actuality it will collect sewage and storm water from

large, relatively distant areas within the city, storing it there until water sanitation facilities can handle the excess. This time frame is indeterminate, and cannot

be fully known because of the very nature of handling storm issues. If there are power failures that continue for some days, if pumps and filters and other equipment

fail due to the power outages or other direct damage, the impact on the park and its neighborhoods will be severe. With anticipated, cyclical staffing shortages and

inability to fund replacement equipment such a situation could remain for an unacceptable length of time.

4) McKinley Park is not some out of the way acreage largely unnoticed and disregarded by the citizenry of Sacramento. It is one of the premier parks, and considered by

many to be the best in the city. It is heavily used and proudly recommended and regarded within Sacramento. This sewage and storm water project is completely inappropriate to

be sited at this park. Let's face reality, this project would place a million cubic foot CESSPOOL in one of the best places for recreation, (and weddings) in the city.

4) If this project goes forward it creates a predictable degeneration of McKinley Park and its neighborhoods. Folks will stop using the park due to odors, lack of decently maintained

landscaping above the site of the 'vault' and the city will endure increased costs in policing, vandalism, and the resulting deterioration of the bordering housing and commercial buildings,

causing a loss to the tax base.

5) The post project landscaping has not been adequately addressed and is only a vague 'promise' at this point. This is disingenuous on the part of the city's Departments. Such promises,

that the area above the site will actually be better than before, are unlikely to be fulfilled without fully being specified and written into contracts, especially if there are budgetary shortfalls at

the time.

6) The cost of this project would be better spent on the inevitable requirement that Sacramento separate its storm water and sewage

systems, as almost all California cities already have.

Thank you for your attention to these issues. Please do not place this project in McKinley Park. Sincerely, Stephen R. Smith, (resident of Sacramento for 30 years).

From: Martha Sward
To: Scott Johnson
Subject: Fwd: Water and Sewage Vault at McKinley Park
Date: Wednesday, July 5, 2017 11:50:45 AM

Hi Scott, I sent this email a few days ago to another email address regarding the project that I gleaned from the city website. It may not have been to the right place and it's possible that the email might not have been forwarded to you. So I'm doing that now. Please forgive my somewhat irritable and sarcastic tone! Sometimes I get a little carried away in that way when I am writing to people, rather than speaking to them. I do appreciate the city's wish to protect its citizens from flooding and to protect our rivers. I just hope that this project can be undertaken with great care for its nearby residents and for the sake of lovely McKinley Park. Thanks.

--Martha Sward

---------- Forwarded message ----------
From: "Martha Sward" <msward819@gmail.com>
Date: Jul 2, 2017 4:32 PM
Subject: Water and Sewage Vault at McKinley Park
To: <McKinleyWaterVault@cityofsacramento.org>
Cc: "Jeff S. Harris" <jsharris@cityofsacramento.org>,
<MayorSteinberg@cityofsacramento.org>

> Dear City of Sacramento Staff, We have lived on 35th Street, up the block from the McKinley Park Panhandle for over 33 years so we are aware of the flooding that can occur in that area after heavy rains. We appreciate the need to do something to alleviate this flooding and to prevent untreated sewage from flowing into the Sacramento River. At the same time, we have a lot of questions and doubts about your proposed remedy.
>
> First of all, it is disingenuous and deliberately misleading to call what you plan to build, a "water" vault. Call it what it is: a water and sewage vault.
>
> Secondly, the possible "improvements" to the park, mentioned on the city website, that could occur as a result of this project have nothing to do with the building of a water and sewage vault. They don't stem from building a vault. These vaguely referred to "improvements", eg., resurfacing of the running path, the construction of more bathrooms, some tree-planting, could occur without a water and sewage vault being created.
>
> Thirdly, you seem very vague and undecided about the things that might be done to "mitigate" odors resulting from the sewage that will be entombed under the baseball field. Don't you already know what the most effective means are to eliminate, not "mitigate", offensive odors are? This project should not be undertaken unless and until you know how to completely eliminate the smell of sewage from the neighborhood.
>
> Fourthly, you did not indicate on your information page whether trees can be planted on top of this vault. McKinley Park has already lost some magnificent and stately trees next to the baseball field backstop and around the picnic area. What was once a shady, cool, and attractive place to picnic or to watch baseball games is now a very hot, sundrenched area. If trees cannot be replaced in those areas, the park will have permanently lost a vital source of beauty and shade and the park's stature and allure will be considerably diminished.
>
> We hope you take these concerns into consideration as you think about this project. We would love to have you respond to us about the specific points we've raised.
>
> Thank you.
>
> Sincerely, Martha Sward and John Farrell

From: McKinleyWaterVault
To: Scott Johnson
Cc: James C. Yorita
Subject: Fw: Water and Sewage Vault at McKinley Park
Date: Wednesday, July 5, 2017 1:46:44 PM

Hi Scott,

See below comments to be included in the draft EIR.

Best,

Meagan

From: Martha Sward <msward819@gmail.com>
Sent: Sunday, July 2, 2017 11:32 PM
To: McKinleyWaterVault
Cc: Jeff S. Harris; Mayor Steinberg
Subject: Water and Sewage Vault at McKinley Park

Dear City of Sacramento Staff, We have lived on 35th Street, up the block from the McKinley Park Panhandle for over 33 years so we are aware of the flooding that can occur in that area after heavy rains. We appreciate the need to do something to alleviate this flooding and to prevent untreated sewage from flowing into the Sacramento River. At the same time, we have a lot of questions and doubts about your proposed remedy.

First of all, it is disingenuous and deliberately misleading to call what you plan to build, a "water" vault. Call it what it is: a water and sewage vault.

Secondly, the possible "improvements" to the park, mentioned on the city website, that could occur as a result of this project have nothing to do with the building of a water and sewage vault. They don't stem from building a vault. These vaguely referred to "improvements", eg., resurfacing of the running path, the construction of more bathrooms, some tree-planting, could occur without a water and sewage vault being created.

Thirdly, you seem very vague and undecided about the things that might be done to "mitigate" odors resulting from the sewage that will be entombed under the baseball field. Don't you already know what the most effective means are to eliminate, not "mitigate", offensive odors are? This project should not be undertaken unless and until you know how to completely eliminate the smell of sewage from the neighborhood.

Fourthly, you did not indicate on your information page whether trees can be planted on top of this vault. McKinley Park has already lost some magnificent and stately trees next to the baseball field backstop and around the picnic area. What was once a shady, cool, and attractive place to picnic or to watch baseball games is now a very hot, sundrenched area. If

trees cannot be replaced in those areas, the park will have permanently lost a vital source of beauty and shade and the park's stature and allure will be considerably diminished.

We hope you take these concerns into consideration as you think about this project. We would love to have you respond to us about the specific points we've raised.

Thank you.

Sincerely, Martha Sward and John Farrell

July 5, 2017

To:
Scott Johnson
City of Sacramento
Community Development Dept.

From:
Claudia Bordin
551 35th Street
Sacramento, CA 95816
cbdesign@surewest.net
916-736-3450

RE: McKinley Water Vault Project

Firstly, please address placing this vault in the existing, very deep hole at McKinley Village. It is already a construction site and the hole is already there!

While the idea of this vase storage vault seems like a good idea to mitigate flooding around McKinley Park, there are many concerns that need to be addressed to our neighborhood:

Rose Garden & Clunie Community Center loss of wedding and event revenue. Without this ongoing income, *Friends of East Sac* will not be able to continue to run these venues and keep them in the 'black'. The city will need to fund this omission of revenue. No bride will want her wedding in/near a dusty construction site!

What will the proposed pump station look like? Height? Architectural design? Can it be designed to architecturally look like a vintage house or adjunct building to the Clunie Comm. Center ?

What is the proposed landscape design to 'hide' this structure or make it architecturally blend into the park?

What type of odor/emissions will this pump station emit - such as methane gas? Will these emissions be toxic or detrimental in any way to living things (humans, pets, and flora)? Currently the sewer drains around McKinley Park emit a nasty smell in the summer months.

How long will the *entire project* take?

What will the effects of traveling/blowing dust/dirt be to the surrounding homes & inhabitants?
What are the proposed mitigations for dust?

What type of mitigations do you expect to do for the disturbance to surrounding residents and their homes? (water spraying, etc.)

What are the 'significant impacts' of the vault ongoing operation?

Can construction be limited to weekdays 7-5 (no weekends)?

From: Mike Greene
To: Scott Johnson
Subject: Comment on McKinley Water Vault Project
Date: Thursday, July 6, 2017 12:06:28 PM

The EIR on the MWV as proposed should evaluate the long-term environmental impacts resulting from the MWV in comparison to those resulting from the complete construction and operation of completely separate wastewater and storm drainage systems in the east Sacramento area..

Michael Greene
3701 McKinley Blvd
Sacramento, CA 95816
1-916-849-1570
cdsconsulting@surewest.net

From: oneaxos2many
To: Scott Johnson
Subject: Mckinley Water Vault
Date: Thursday, July 6, 2017 9:04:47 PM

Odor control, Traffic, location, tree removal, park destruction as well as many other community impacts have not been adequately addressed. There are many significant Environmental impacts that are clearly not addressed and will be subject to violation of environmental requirements as well as environmental justice. This report clearly shows how the City of Sacramento is abusing CEQA and NEPA to solve a significant violation of the health and welfare of the McKinley Park community and residents.

Paul Engstrom
410 34th Street
Sacramento, CA, 95816

From:	knit1 purl7
To:	Scott Johnson
Subject:	McKinley Water Vault
Date:	Friday, July 7, 2017 4:24:26 AM

I'm against destroying beautiful McKinley Park by constructing a 1 million gallon water vault there. Months of construction will leave the park unuseable during that time. Delays are sure to happen, lengthening the disruption. This urban location is in dire need of protection in order to maintain an oasis in the city, so adding this water cachement system is a bad idea.

Look at the acres of currently available property at sutter memorial hospital site. Eminemt domain will surely be easy there.

Carla Ciau, 516 42nd Street, Sacramento ca 95819.

•••••••••

Expect nothing. Live frugally on surprise. Alice Walker

Scott Johnson

To: McKinleyWaterVault
Subject: RE: Questions about the McKinley Water Vault project

From: Douglas Nelson <Doug@rhaa.com>
Sent: Thursday, July 6, 2017 10:48 PM
To: McKinleyWaterVault
Subject: Questions about the McKinley Water Vault project

Hello:

- The stated footprint of the vault just fits within the baseball area of McKinley Park. Will deep piles be used to minimize the footprint of construction activities?
- Can you go deeper and reduce the vault footprint to eliminate impacts to mature park trees?
- Will the finish grade above the vault match existing grades?
- What will be the depth of soil on top of the vault?

Thank you.

Douglas Nelson, Landscape Architect, LEED AP

Principal

rhaa

LANDSCAPE ARCHITECTURE + PLANNING

225 Miller Ave, Mill Valley, CA 94941

415.383.7900 | Office | www.rhaa.com

415.360.2853 | Direct

From:	J ennifer
To:	Scott Johnson
Cc:	Jeff S. Harris
Subject:	McKinley stormwater vault comment
Date:	Friday, July 7, 2017 9:44:40 AM

Hello Scott,
I accept this project as we need its function for essential stormwater control and sustainable water management.

Per this www.cityofsacramento.org/McKinleyWaterVault claim: "The project not only brings flood protection to the community but also **offers improvements for McKinley Park through Utilities' partnership with Parks & Recreation**."

I ask that improvement funds for rebuilding McKinley park include finishing improvements to include a solid recycled tire foot path/running surface (current sand gets soaked and muddy from irrigation system) around the park.

There are also tire-derived products suitable to help construct & seal the vault. Here are state provided vendor resources for green construction products in an easy to view products and contact vendors format: www.calrecycle.ca.gov/condemo/products/

These are all California companies many of which make products suitable to this project. IF you are not one who selects products for in planning this project, please share with whomever is or let me know how to contact them.

I appreciate City consideration of all above.

Respectfully,
J. Caldwell
3101 B ST.
Sacramento, CA 95816

From: Nancy Cornelius
To: Scott Johnson
Subject: Water Vault McKinley Park Comments
Date: Friday, July 7, 2017 11:35:06 AM

Mr. Johnson:

These are my comments regarding the **water vault proposed for McKinley Park**. I am sending this on 7/7/17 but there are some email issues with CCI in my area, so I am hopeful you will receive this email by the deadline today.

McKinley Park is a historic and "regional" park used by many out-of-the area residents. The park has been neglected for many years. City Parks and Recreation is a poor excuse for an agency "caring" for the park as it is almost like they have gone out of their way to destroy the park. The running path is poorly designed and the watering and sprinkler system is neglected so the running path is muddy and slippery (and dangerous) in winter. Trees are dying due to neglect and abuse. Shrubs and greenery are ignored having gone untrimmed and uncared for leaving all to see the ongoing blight. Overall McKinley Park has been ignored by City Council, the City Manager and the Mayor.

We recently approved a tax increase "Measure U" which was to improve the park situation. Yet, the park has continued to deteriorate and if were not for volunteers the situation would be even more dire.

It is commonly known that green space at McKinley Park provides residents relief from stress and fatigue. This reason about human need is why the park is used as much as it is even in the existing condition. People are desperate to be outside in a park-like setting.

We have grave concern that the city can manage this water vault project since there is limited confidence in the city's decision-making. The city has shown us repeatedly that they want to approve building projects in the downtown, midtown and East Sac areas by encouraging infill projects, At the same time, they ignore the fact that the combined sewer system is antiquated and in need of replacement. Instead of dealing with the badly deteriorating combined sewer system the city approves development project after development project thus putting even more strain on the combined sewer system. This is not strategic nor well-thought-out.

The large building that you want to build at McKinley Park that is cited as being 50 x 50 will remove green space that is so important. **Odor control is one of the largest concerns of the citizens of this area. Overall residents feel this idea of a water vault in this location is a violation of the health and safety of the citizens of this community.**

Instead of speeding towards a decision about this project, the city needs to find another more suitable location, improve the care of McKinley Park, and place emphasis on caring for the tax-paying residents and visitors who use this park every day. In addition, the city needs to take a step back and repair the combined sewer antiquated system. Utility rates in Sacramento have sky rocketed. Where is that money going? Shouldn't that utility rate hike funds be repairing the combined sewer system?

Respectfully,

Nancy Cornelius
Former President of McKinley East Sac Neighborhood Association
67 Primrose Way
Sacramento, CA 95819
916 284-7786

Att: Scott Johnson associate Planner
City of Sacramento development depart.
300 Richards Blvd.

I'm opposed to the water vault as a sewage storage site in McKinley park and this old and historic neighborhood.

This will damage the environment for families ~~who~~ live here and families who visit. The smell is not healthy for children or the elderly.

You are decreasing our property values by the presence of sewage storage.

move the vault to a location which will not destroy the baseball fied and trees nearby trees.

Keep the park a park and not a sewage Plants.

Patricia Ansell

RECEIVED
JUL 07 2017
BY:

From: Art and Fran
To: Scott Johnson; ahpease@aol.com
Subject: McKinley Water Vault Comments
Date: Friday, July 7, 2017 12:38:21 PM

Scott R Johnson, Associate Planner
Community Development
City of Sacramento

Dear Mr. Johnson:

My wife Francis and I are concerned homeowners at 545 Santa Ynez Way. We were both born and raised in Sacramento and have lived in East Sacramento since 1976. We purchased our current home in 1990 and moved in in early 1992 after completion of an addition and remodeling project. Our home is in a low spot near the corner of Santa Ynez and Park Way. We have a detached 2 car garage and a small basement. During our time living here, our property has been flooded at least 5 times that we recall: in the winter of 1994-95??, January 1997, in a summer hail/rain storm in the mid to late 2000's (in September, when pumps off line for maintenance), on December 2, 2012, and on February 8, 2015. Many of these times water goes under our entire home, sometimes with water marks (grass/debris left on the floor joists), and it takes days to pump out the basement,. Also our garage and yards flood, up to 11 inches in parts of the garage. We have lost items in garage, such as stored items, magazines, mementos and keepsakes, a lawnmower and edger (the first time). And our yard floods. Each times we need the pump, dry, and clean and sanitize the flooded areas. Also, our hardwood floors have cupped from all the moisture under the house. We have attached photos from 2012 and 2015. The 3 prior floods were just as bad or worse. We know of neighbors who have lost items due to basement and garage flooding. We have seen the flooding on 36th Street, 35th Street and even down D street east of 39th Street.

The pressure on the drainage / sewer lines is so great that it pops off the manhole covers in front of our house and on 36th Street behind us. The 36th Street water runs through the properties behind us and through our property, out the Santa Ynez and down Park Way toward the McKinley Park to end up on the baseball field area. It only makes sense to keep this water and sewage in the pipes below ground and not have in run as surface water. The official maps only show our property as "moderate" flooding, but the heavy flooding shown on the map at 36th Street is right behind our property (to east) and that heavy flooding runs through our property. (I have witnessed the flood waters spurting through the gaps between fence boards during the floods.)

After the December 2012, flooding, there was a community meeting at Theodore Judah school in January 2013. At that time, we were promised a water vault solution by then council member Steve Cohn, but not for 5 years, as the project in Oak Park was to be finished first. We are now happy that after over 20 years, the City will be taking steps to fix this problem. I believe that the water vault solution is the best one under the circumstances.

Someone has left flyers in our neighborhood stating only selective information and scare tactics to try to persuade people to oppose the project. (Copy attached.) They cite a July 1 statement from Councilman Steve Harris that smell is an issue, but did not state that he is for the project, as was reported in the Sacramento Bee on July 2. Please do not let those types of arguments about smell and reduced property values hold up this much needed project. (The person(s) who produced and distributed the flyer did not even have the courtesy or the conviction to give us their name(s).) Apparently, the creator of the flyer would rather the City not spent money for environmentally needed, legally mandated projects and let their neighbors' properties and streets flood with sewage than to possibly get a whiff of an odor for a few seconds at one small area of the park. That does not make any sense to me. The City has an obligation to all residents to provide a safe sewage system for all.

Thank you.

Sincerely,

Arthur Harris Pease
545 Santa Ynez Way
Sacramento

IMG_20121202_545 Santa Ynez water out of MHole cover- also same at 36th St

IMG_20121202_backyd from in front of garage

IMG_20121202_backyd from south to garage

IMG_20121202_Camper shell on crates-1 ft deep

IMG_20121202_driveway fr garage- shell or Rt

IMG_20121202_driveway- side porch

IMG_20121202_Garage- 10 - 11 in deep

IMG_20121202_raised bed near garage- 1 ft deep

IMG_20150208_135913Feb 9 15 flood 4- 6 in in garage

Anonymous flyer left on porches on Santa Ynez Wy.jpg

ATTENTION NEIGHBORS :

MC KINLEY PARK WATER VAULT ENVIRONMENTAL REVIEW COMMENT PERIOD IS COMING TO AN END, TOMORROW, FRIDAY JULY 7, 2017 4:00 p.m.

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

READ NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT, AT :
https://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties. Written comments or questions concerning the EIR for the proposed Project should be directed to the City's environmental project manager at the above address by 5:00 p.m. on July 7, 2017 (public counter hours are 9:00 am – 4:00 pm). Include the commenter's full name and address.

THIS COULD AFFECT OUR PROPERTY VALUES !!

"ODOR CONTROL is an issue", said councilman JEFF HARRIS during a July 1st Television interview with on CBS13 Sacramento.

PROJECT IS PAID FOR BY RATE PAYER DOLLARS,

NOT BY THE DEVELOPERS CONTRIBUTING TO THE PROBLEM !!!

THE VAULT WILL BE LOCATED UNDER
THE HISTORIC GEORGE "BUTTER" COLE BASEBALL FIELD

-The Vault will be a large cistern that will capture wastewater (including sewage) and storm water runoff.
- Water will be SLOWLY (how long will it sit off-gassing into our neighborhood?) fed back into the combined sewer system for processing at the Sacramento Regional Wastewater Treatment Plant.
- One structure under 3.2 ACRES of the park 20 to 30 FEET DEEP.
- The Water Vault will have to be vented with visible vents and structures Be able to store roughly one million-cubic-feet of combined wastewater (INCLUDING SEWAGE) and storm water COMING FROM PROPERTIES IN MC KINLEY PARK AND MID-TOWN.

From: Theresa Reali
To: Scott Johnson
Subject: Re: McKinley water vault
Date: Friday, July 7, 2017 12:47:55 PM

Thank you for receiving my phone call today. I evidently got the address wrong for Mr. Yorika. Would you please forward my letter to him before today's deadline. Thank you very much. Theresa Reali

On Fri, Jul 7, 2017 at 12:37 PM, Theresa Reali <7royalblue@gmail.com> wrote:

> My husband and I as well as our daughter and son, his wife and five children (all of whom are East Sacramento residents going back as far as 1975) have serious concerns about the McKinley water vault which is proposed to be built about 200 feet from our property. Concerns are for the safety and usage of the park, the ball field, the noise and construction impact, foul odors, property values, etc. etc. Oh yes, also our health and quality of life.
>
> What about a location for the vault a short distance away, like along the river. What about pumping the water there and holding it there where it could be treated and released into the river. There can always be what are now unforeseen dangers and problems. Why not move it all nearer to the river where there are no homes.
>
> The McKinley Village project and the old Sutter hospital projects are apparently pushing drains over the top. Developers are not concerned about anything except their profits but apparently the city keeps allowing whatever they want. This past winter we saw the partially completed McKinley village with its three big "lakes" that will of course be channeled into my backyard with this proposed vault project.
>
> This all brings to mind the fears of problems like at the old railroad site by Hughes stadium, the "venting" of the old dump on the west side of hwy 99 near here and the Indian burial site near 28th and K sts.
>
> Surely there must be better alternatives for the proposed vault that are not near our homes. Please keep us informed.
>
> Mr. & Mrs. Sergio Reali
> 618 34th Street
> Sacramento, CA 95816

From: wgreen@surewest.net
To: Scott Johnson
Cc: Jeff S. Harris; David Gonsalves
Subject: McKinley Water Vault Comments and Questions for EIR
Date: Friday, July 7, 2017 1:00:57 PM
Attachments: My comments on the Water Vault.docx

To the City of Sacramento

I want to thank Judy McClaver for the submission of her concerns for this proposed Water Vault Project. She has given me permission to use her concerns for me to further add my questions and concerns.

I have added my additional comments in **BOLD** type.

Please see the 4 page attachment.

Respectfully submitted, but with serious concerns and questions about this proposed project.

Will Green, MD

425 San Miguel Way, Sacramento, Ca. 95819

1. **I would like a full transparent disclosure of how Utilities Dept. chose McKinley Park as the "most feasible site" for this project. On what date did the Dept. of Utilities begin their search. On what date did the City of Sacramento or the Utilities Dept. first become aware of the need for a water vault storage for the solution?**

2. **It is disturbing to me to learn of this major storm water and sewage problem just now being presented by the PR firm of Crocker and Crocker. This placement decision seems to be on the heels of the build out of McKinley Village. The East Sac neighborhood was promised that the McKinley Village tie-in to our existing water and sewage system wouldn't have any negative impacts. In my and other's opinions here we are faced with a very negatively impacting placement of a water vault being with its' suggested placement into the heart of a long established residential neighborhood. The placement of this project in our historic park isn't acceptable.**

3. This project is degrading a majestic historic park that has been here since late 1800s. This park needs to be preserved. Why is the City putting water sewage storage vaults in public places where children and neighbors congregate and play? **The EIR needs to include a review and OK from the Preserve Sacramento or other historic preservation groups that care about the history of Sacramento and its long established neighborhoods.**

4. Please provide an explanation why this vault is not being installed below a parking lot somewhere else (i.e. Cannery on C Street) or the empty lot to the east side of Cannery parking lot, like most vaults are elsewhere in USA...though not in Sacramento it seems. Private land was being considered in McVillage so why not one of these two other open sites**?**

I believe the McKinley Park neighborhood needs to have a clear understanding why McKinley Village was not an OK site for this water vault.

5. Why is it more costly for this project to go into McVillage via Alhambra Blvd. verses putting it in McKinley Park? **The placement into McKinley Village along Alhambra Blvd, would be less disruptive to long established neighborhoods. As well, it would not interfere with an historic sports field established and committed recreational use by our community.**

6. Ball fields are Sacramento Utilities' choice for these vaults. Due to limited drainage of a few inches of soil over the top of the vault, rain and sprinkler water causes soggy grassy areas as noted by neighbors and park maintenance crews. How is this going to be remedied? Trees certainly cannot grow on top of a vault**. It has been reported that the vault in Oak Park is a bog in the rainy winter seasons**.

7. The 50'x 50' building on top of the vault means less open space in the park. The EIR needs to address the placement of all equipment for this project and how the ball fields will be affected.

8. What is the design of the building? Will it be like the latest prefab portable restroom installed by the playground, or more natural and follow the parks other older dark brick buildings so that it does not standout. How will it be protected from graffiti?

9. Where are the vault's air vents to be located?

10. Saying "increasing air circulation within the vault", use of "activated carbon" filters, and/or chemicals will be used for odor

control does not filter the air that backs up through the present sewer drainage pipes & curb drains around the neighborhood. Walk down a sidewalk near a middle of the street manhole cover now on H Street or Park Way etc. and the odor spreads sometimes 50 feet around it. How will this be controlled? We want guarantees. **How will the construction and the lasting smells affect the McKinley Rose Garden which has been resurrected over the past 4-5 years. Will reasoned minded people still want to choose the Rose Garden for Weddings and other special events?**

11. With the City approving the addition of housing developments, multifamily high-rises in various areas (i.e. downtown, midtown, Curtis Park and McVillage), the combined system is only going to get further overloaded. This will likely mean a need for a future expansion of the water treatment facility size and/or possibly another facility in a different location. Please address this impact and future plans.

12. **Instead of band-aiding the combined sewer system with water vaults, why is the City not using the money to split the system into separate sewage and street drainage? This has the potential to save water treatment costs including the need for more treatment facilities. Why not bring Sacramento into the 21st Century with an appropriate split sewer and water drainage system.**

13. There needs to be a plan such that all vehicles involved in the construction are not allowed to impact other surrounding/adjacent neighborhood streets. There should be no traffic diversions to other streets including idling vehicles from contractors or City vehicles, trucks, buses etc. parked on other street. Sacramento Metropolitan Air Quality needs to be involved since diesel vehicles are in use. There needs to be a violation imposed for those that try to sneak by this traffic, air quality and

public health/safety issue. The neighbors were poorly impacted with the water meter - pipe replacement installation which took close to 11 months. This project is expected to take 18-24 months to complete. We do not want more of the same. The construction vehicles need to be on the construction site and traffic allowed to flow as usual with no street closures.

14. Is a second water storage vault also planned for installation either in the soccer field at Alhambra & McKinley Blvds. or the grass areas by Sheppard's Garden building? If so, when will this project be started?

15. Parks has removed several trees with the pond project along with many other trees that were determined to be diseased, dead or dying over the past several years. Removal of trees to make construction access easier is not acceptable and all measures should be implemented to protect the roots of the trees already there. This should be monitored by Sacramento Tree Foundation. Saying you will replace removed trees means you are not replacing their intrinsic shade and air filtration. They will not return to their current height and fullness for years and if current ones area left in place they will grow to provide more benefit which new trees will not ever catch up to. More shade trees are needed not "lollipop" size trees. Also trees cannot be planted close to the edge of the vault due to possible root damage to the vault and/or tree root damage from the vault wall.

I look forward to your response to my questions and concerns.

Respectfully submitted,

Will Green, MD.

425 San Miguel Way

Sacramento, CA 95819

From: McKinleyWaterVault
To: James C. Yorita
Cc: Scott Johnson
Subject: Fw: McKinley Vault Plans
Date: Friday, July 7, 2017 2:08:43 PM

Hi James and Scott,

Please see below email from John.

Best,

Meagan

From: John Home <John.Home@rsconst.com>
Sent: Friday, July 7, 2017 8:59 PM
To: McKinleyWaterVault
Subject: McKinley Vault Plans

Hi,

May I please have a copy of the design plans for review. Additionally, I would like to know about what landscaping & irrigation improvements are planned for McKinley Park after the project. The upkeep and maintenance of this park – one of the heaviest used parks in the city - has been neglected by the city. I believe it is only fair that if the park should bear the brunt of this municipal project that improvements be made to the park and/or a better commitment to deeper maintenance and upkeep than trash pickup and mowing.

Thank You,
John Home
617 33rd St homeowner (immediately east of project)

From: rmajca@surewest.net
To: Scott Johnson
Subject: McKinley Park water valt
Date: Friday, July 7, 2017 2:16:32 PM

Dear Mr. Johnson,

I m writing to you regarding the cistern the city would like to place under the ball diamond at Mc Kinley Park. I m concerned about the odor this will present to the residents in the neighborhood. Some years ago the Sutter's Landing area was a city dump. The neighborhood smelled of the gases it produced for several years. I compare the odor that will be produced by this new cistern equal to the one that was produced by Sutter's Landing. I m sure that you can come up with a better idea then disfigure the George "Butter" Cole baseball field in Sacramento's oldest park. With our modern technology ,there must be a better way of solving this issue. Thank you, 460 35th Street. Ruth Adolphson

Have not made the other meetings as have had unexpected surgery the end of May.

From:	Kathleen McLean
To:	Scott Johnson
Subject:	Comment: McKinley Park water vault
Date:	Friday, July 7, 2017 2:29:05 PM

Dear Mr. Johnson,
I have two concerns regarding the impact of the proposed water vault to the McKinley Park neighborhood.
My major concern is odor control. As you may know, those of us south east of the park have had years of horrible odors coming to us from the dump where Sutter's Landing is now. It is closed and we no longer suffer from these odors.
Now the City of Sacramento is proposing a water vault of our combined system that may once again sent horrible odors this way.
When we have heat waves that finally break and receive the wonderful Delta breezes, most of us enjoy opening our homes to let the air flow in. We enjoy being in our gardens
and are frequently eating outside. This way of life is threatened as are our property values.
I request that an independent evaluation of any proposed odor control system by an engineer expert in the area of odor mitigation.

My other concern is the maintenance facility above ground . If this proposed vault system is decided on, it is necessary to incorporate a design that is compatible with the park.
There is a high degree of skepticism about the Utility Department after some of the problems in the not too distant past. I firmly request that if this department tamper with the oldest Park in Sacramento, the monies be allocated for quality design to include the esthetics of this neighborhood.
I hope you will take time to consider my comments.
Sincerely,
Kathleen McLean
440 35th St.

From:	Kathleen McLean
To:	Scott Johnson
Cc:	Mayor Steinberg
Subject:	Fwd: Comment: McKinley Park water vault addendum
Date:	Friday, July 7, 2017 2:45:23 PM

In my first comment, I noted that we are south east of the park. This was an error, we are north east of the park.
Kathleen McLean
440- 35th St.

Sent from my iPad

Begin forwarded message:

> **From:** Kathleen McLean <kmarymclean@gmail.com>
> **Date:** July 7, 2017 at 2:28:58 PM PDT
> **To:** srjohnson@cityofsacramento.org
> **Subject: Comment: McKinley Park water vault**
>
> Dear Mr. Johnson,
> I have two concerns regarding the impact of the proposed water vault to the McKinley Park neighborhood.
> My major concern is odor control. As you may know, those of us south east of the park have had years of horrible odors coming to us from the dump where Sutter's Landing is now. It is closed and we no longer suffer from these odors.
> Now the City of Sacramento is proposing a water vault of our combined system that may once again sent horrible odors this way.
> When we have heat waves that finally break and receive the wonderful Delta breezes, most of us enjoy opening our homes to let the air flow in. We enjoy being in our gardens
> and are frequently eating outside. This way of life is threatened as are our property values.
> I request that an independent evaluation of any proposed odor control system by an engineer expert in the area of odor mitigation.
>
> My other concern is the maintenance facility above ground . If this proposed vault system is decided on, it is necessary to incorporate a design that is compatible with the park.
> There is a high degree of skepticism about the Utility Department after some of the problems in the not too distant past. I firmly request that if this department tamper with the oldest Park in Sacramento, the monies be allocated for quality design to include the esthetics of this neighborhood.
> I hope you will take time to consider my comments.
> Sincerely,
> Kathleen McLean
> 440 35th St.

From: Irvin Volk
To: Scott Johnson
Subject: McKinley Park Water Vault
Date: Friday, July 7, 2017 2:39:44 PM

Dear Mr. Johnson

I would like to go on record with my disapproval of the McKinley Park Water Vault Project. After reading as much as possible on the subject in my opinion the value proposition is very much lacking tor the McKinley Park neighborhood residents and the thousands of people who will lose access to the park through the duration of the proposed project.

Sincerely

Irvin Volk
584 34th St
Sacramento Ca. 95816

From: Judy Mc
To: Scott Johnson
Subject: Concerns and Comments for McK Water Vault EIR
Date: Friday, July 7, 2017 3:54:42 PM

Mr. Johnson:

These are my comments and concerns about the McKinley Water Vault that I would like to see addressed in the EIR

1. This project is degrading a majestic historic park that has been here since late 1800s. This park needs to be preserved. Why is the City putting water sewage storage vaults in public places where children and neighbors congregate and play? Please refer to Section 4(f) https://www.environment.fhwa.dot.gov/section4f/history.aspx
2. Please provide an explanation why this vault is not being installed below a parking lot somewhere else (i.e Cannery on C Street) or the empty lot to the east side of Cannery parking lot, like most vaults are elsewhere in USA...though not in Sacramento it seems. Private land was being considered in McVillage so why not one of these two other open sites where nothing will be destroyed or disrupted?
3. Why is it more costly for this project to go into McVillage via Alhambra Blvd. verses putting it in McKinley Park or by the Cannery/McVillage at 40th Street?
4. Ball fields are Sacramento Utilities' choice for these vaults. Due to limited drainage of a few inches of soil over the top of the vault, rain and sprinkler water causes soggy grassy areas as noted by neighbors and park maintenance crews. How is this going to be remedied on a much larger vault than the others already in place? Trees certainly can not grow in shallow soil on top of a vault.
5. The 50'x 50' building on top of the vault, means less open space in the park. The EIR needs to address the placement of all equipment for this project and how the ball fields and public places will be affected.
6. What is the design of the building? Will it be like the latest prefab portable restroom installed by the playground, or more natural and follow the parks other older dark brick buildings so that it does not standout. How will it be protected from graffiti?
7. Where are the vault's air vents to be located?
8. Saying "increasing air circulation within the vault", use of "activated carbon" filters, and/or chemicals will be used for odor control does not filter the air that backs up through the present sewer

drainage pipes & curb drains around the neighborhood. Walk down a sidewalk near a middle of the street manhole cover now on H Street or Park Way etc. and the odor spreads sometimes 50 foot diameter around it. How will this be controlled? We want guarantees.

9. With the City approving the addition of housing developments, multifamily high-rises in various areas (i.e. downtown, midtown, Curtis Park and McVillage), the combined system is only going to get further overloaded. This will likely mean a need for a future expansion of the water treatment facility size and/or possibly another facility in a different location. Please address this impact and future plans.
10. Instead of bandaiding the combined sewer system with water vaults, why is the City not using the money to split the system into separate sewage and street drainage? This has the potential to save water treatment costs including the need for more treatment facilities.
11. These vaults typically have about a 50 year life span. What will be next? How will it be determined that the vault has not developed a leak and sewage siphoning into our ground water?
12. There needs to be a plan such that all vehicles involved in the construction are not allowed to impact other surrounding/adjacent neighborhood streets. There should be no traffic diversions to other streets including idling vehicles from contractors or City vehicles, trucks, buses etc. parked on other streets. Sacramento Metropolitan Air Quality needs to be involved since diesel vehicles are in use. There needs to be a violation imposed for those that try to sneak by this traffic, air quality and public health/safety issue. The neighbors were poorly impacted with the water meter - pipe replacement installation which took close to 11 months. This project is expected to take 18-24 months to complete. We do not want more of the same. The construction vehicles need to be on the construction site and traffic allowed to flow as usual with no street closures or diversions.
13. Is a second water storage vault also planned or under consideration for installation either in the soccer field at Alhambra & McKinley Blvds. or the grass areas by Sheppard's Garden building? If so, when will this project be started?
14. Parks has removed several trees with the pond project along with many other trees that were determined to be diseased, dead or dying over the past several years. Removal of more healthy trees to make construction access easier is not acceptable and all measures should be implemented to protect the roots of the trees already there. No "opps" by heavy equipment. This should be monitored by outside agency like Sacramento Tree Foundation (not City Urban Forest). Saying you will replace removed

trees will mean you are not replacing their intrinsic shade and air filtration. They will not return to their current height and fullness for years and if current ones are left in place they will grow to provide more benefit which new trees will not ever catch up to. More shade trees are needed not "lollipop" size trees. Also trees can not be planted close to the edge of the vault due to possible root damage to the vault and/or tree root damage from the vault wall. This means less canopy given the size of this project.

Judy McClaver
716 35th Street
Sacramento, CA 95816

Please delete my email & street number when posting this and any forwarding history, which includes my email address. It is a courtesy to me and others who may not wish to have their email addresses sent all over the world! Erasing the history helps prevent Spammers from mining addresses and viruses. Thank you.

From: Halseth, Aileen
To: Scott Johnson
Subject: McKinley Park Water Vault
Date: Friday, July 7, 2017 4:16:46 PM

Dear Mr. Johnson,

I and my family are unhappy with the proposed water vault. As east Sacramento residents living close to McKinley Park, we are very aware that McKinley Park is one of the most-used parks in Sacramento. The installation of the water vault would be disruptive to the user friendly environment of the park as well as disruptive for our neighborhood. Even after the vault is completed, we have further concerns about the potential smell and maintenance issues that the vault could cause. Surely there must be a better site for the vault? A site that is not in the middle of a residential neighborhood or a heavily used public park.

Thank you for reading our email, and keeping our concerns in mind.

All the best,

Aileen, Andy and Adam Halseth
3430 H Street
Sacramento CA 95816

Sent from my iPhone

From: Melinda Johnson
To: Scott Johnson
Subject: MC KINLEY PARK WATER VAULT ENVIRONMENTAL REVIEW COMMENT
Date: Friday, July 7, 2017 4:32:58 PM

MC KINLEY PARK WATER VAULT ENVIRONMENTAL REVIEW COMMENT

7/7/17 4:00 p.m.

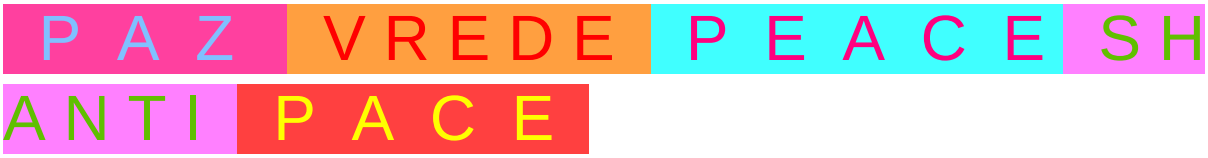
To who it may concern,

I have concerns about the order which will be coming from the Water Vault as it is so close to homes, including mine.

1. Will the Vault be vented?
2. When will it be vented, at what times of year and hours of the day?
3. Where will the electricity lines run to power the vault?
4. If the Vault emits an odor, how will this odor be managed. What chemicals will be used to treat the odor?
5. What specific chemicals will be used in the tank itself and/or become airborne into the neighborhood during venting or off-gassing?
6. Will the chemicals become airborne as the vault releases or vents?

Thank you!

Melinda Johnson
600 34th street
Sacramento, CA, 95816



Melinda Johnson

From: Melinda Johnson
To: Scott Johnson
Subject: MC KINLEY PARK WATER VAULT ENVIRONMENTAL REVIEW COMMENT 7/7/17 4:00 p.m.
Date: Friday, July 7, 2017 4:48:16 PM

Mr. Johnson,
I received this in my email box to be forwarded to you: 7/7/17 4:00 p.m.
Thank you,
Melinda Johnson

Mr. Johnson:

These are my comments and concerns about the McKinley Water Vault that I would like to see addressed in the EIR

1. This project is degrading a majestic historic park that has been here since late 1800s. This park needs to be preserved. Why is the City putting water sewage storage vaults in public places where children and neighbors congregate and play?
2. Please provide an explanation why this vault is not being installed below a parking lot somewhere else (i.e Cannery on C Street) or the empty lot to the east side of Cannery parking lot, like most vaults are elsewhere in USA...though not in Sacramento it seems. Private land was being considered in McVillage so why not one of these two other open sites?
3. Why is it more costly for this project to go into McVillage via Alhambra Blvd. verses putting it in McKinley Park?

4. Ball fields are Sacramento Utilities' choice for these vaults. Due to limited drainage of a few inches of soil over the top of the vault, rain and sprinkler water causes soggy grassy areas as noted by neighbors and park maintenance crews. How is this going to be remedied? Trees certainly can not grow on top of a vault.
5. The 50'x 50' building on top of the vault, means less open space in the park. The EIR needs to address the placement of all equipment for this project and how the ball fields will be affected.
6. What is the design of the building? Will it be like the latest prefab portable restroom installed by the playground, or more natural and follow the parks other older dark brick buildings so that it does not standout. How will it be protected from graffiti?
7. Where are the vault's air vents to be located?
8. Saying "increasing air circulation within the vault", use of "activated carbon" filters,

and/or chemicals will be used for odor control does not filter the air that backs up through the present sewer drainage pipes & curb drains around the neighborhood. Walk down a sidewalk near a middle of the street manhole cover now on H Street or Park Way etc. and the odor spreads sometimes 50 feet around it. How will this be controlled? We want guarantees.

9. With the City approving the addition of housing developments, multifamily high-rises in various areas (i.e. downtown, midtown, Curtis Park and McVillage), the combined system is only going to get further overloaded. This will likely mean a need for a future expansion of the water treatment facility size and/or possibly another facility in a different location. Please address this impact and future plans.
10. Instead of bandaiding the combined sewer system with water vaults, why is the City not using the money to split the system into separate sewage and street drainage? This has the potential to save water treatment costs including the need for more treatment facilities.
11. There needs to be a plan such that all vehicles involved in the construction are not allowed to impact other surrounding/adjacent neighborhood streets. There should be no traffic diversions to other streets including idling vehicles from contractors or City vehicles, trucks, buses etc. parked on other street. Sacramento Metropolitan Air Quality needs to be involved since diesel vehicles are in use. There needs to be a violation imposed for those that try to sneak by this traffic, air quality and public health/safety issue. The neighbors were poorly impacted with the water meter - pipe replacement installation which took close to 11 months. This project is expected to take 18-24 months to complete. We do not want more of the same. The construction vehicles need to be on the construction site and traffic allowed to flow as usual with no street closures.
12. Is a second water storage vault also planned for installation either in the soccer field at Alhambra & McKinley Blvds. or the grass areas by Sheppard's Garden building? If so, when will this project be started?
13. Parks has removed several trees with the pond project along with many other trees that were determined to be diseased, dead or dying over the past several years. Removal of trees to make construction access easier is not acceptable and all measures should be implemented to protect the roots of the trees already there. This should be monitored by Sacramento Tree Foundation. Saying you will replace removed trees means you are not replacing their intrinsic shade and air filtration. They will not return to their current height and fullness for years and if current ones area left in place they will grow to provide more benefit which new trees will not ever catch up to. More shade trees are needed not "lollipop" size trees. Also trees can not

be planted close to the edge of the vault due to possible root damage to the vault and/or tree root damage from the vault wall.

Judy McClaver
716 35th Street
Sacramento, CA 95816

P A Z V R E D E P E A C E S H A N T I P A C E

Melinda Johnson

From:	Theodore Cosmo Marentis
To:	Scott Johnson
Subject:	McKinley Park water vault concerns
Date:	Friday, July 7, 2017 8:34:01 PM

Mr. Johnson,

I have heard and read about the plans for the water vault in McKinley Park. Thank you very much for your efforts to improve the city and overall well being of all the Sacramento citizens.

Having lived here for three years I am not sure the need for a vault is really there. We just came out of the rainiest winter in decades and spot flooding is to be expected. This is a very large sum of moneys and a very prolonged duration of a project that the need does not seem to justify the cost.

After talking to a number of neighbors it seems there is a a lot of well-thought-after and organizing concern for the project. McKinley park is the most utilized and enjoyed park in the city by people of all ages. Any time of the day you visit you see so many people that come together to enjoy the park. Turning a big part of the park into a project for two years just seems like a very significant opportunity cost for all the people of the city. There is definite loss of use for two years for the potential to avoid localized flooding that may happen once every few decades. The trade off is just not favorable.

Finally, there are other areas that seem to be much more in need of a water vault project. For example, half of McKinley village was submersed under water in the winter months and historically the area is a swamp. Their needs for a vault seem much more immediate to drain the area and they have a lot of empty space that they can built the vault they really need, just where it's needed.

Thank you very much for your consideration. Please feel free to contact me with any questions or concerns.

Sincerely,

Theo Marentis
3301 McKinley Blvd
Sacramento CA 95816

From: Joan Volkblack
To: Scott Johnson
Subject: McKinley Park Vault
Date: Thursday, July 6, 2017 2:43:20 PM

Do not want this project in our park or neighborhood.

City of
SACRAMENTO
Community Development

MCKINLEY WATER VAULT

ENVIRONMENTAL IMPACT REPORT (EIR) NOTICE OF PREPARATION (NOP)

COMMENT FORM

Please provide the following information if you wish to receive Notice of Availability of the Draft EIR and to document the author of comments received. Thank you.

Name: Jim Conant

Email: jdc5683@gmail.com

Address: 332 32nd St

Organization: _____

☒ I would like to receive future environmental notices via email.

Please provide us with your written comments by **July 7, 2017.** Comments on the NOP may be sent to:

City of Sacramento
Community Development Department
300 Richards Blvd, Third Floor
Sacramento, CA 95811

Attn: Scott Johnson, Associate Planner (Email: srjohnson@cityofsacramento.org)

You may attach additional pages to this form and/or you may submit your written comments separately. Written comments on the scope of the EIR will be acknowledged in the Draft EIR and will be considered in preparation of the document.

I would be most concerned about disruption of park activities during construction phase specifically the jogging path.
I also hope there is very limited visual impact of the above ground facilities which will detract from the enjoyment of the park.

In The Matter Of:

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

McKINLEY WATER VAULT ENVIRONMENTAL IMPACT REPORT

06.19.17 SCOPING MEETING

June 19, 2017

L.J. HART & ASSOCIATES, INC. / BARRON & RICH

1900 Point West Way, Suite 277

Sacramento, CA 95815

916-922-9001

production@ljhart.com

CITY OF SACRAMENTO

DEPARTMENT OF UTILITIES

McKINLEY WATER VAULT

--o0o--

ENVIRONMENTAL IMPACT REPORT

SCOPING MEETING

Monday, June 19, 2017, 6:00 p.m.

Clunie Grand Hall

601 Alhambra Boulevard

Sacramento, California

--o0o--

L.J. HART & ASSOCIATES, INC.
BARRON & RICH
Certified Shorthand Reporters

Reported by: LINDA J. HART, CSR License 4357, RMR/CRR

A P P E A R A N C E S

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES
By: JAMES YORITA, Project Manager
McKinleyWaterVault@cityofsacramento.org
CityofSacramento.org/McKinleyWaterVault
916.808.5545

CROCKER & CROCKER
By: LUCY EIDAM CROCKER, Facilitator
1614 - 19th Street
Sacramento, California 95811
Lucy@crockercrocker.com
916.491.3161

Also present:

Brett Grant, Supervising Engineer, Utilities
Scott Johnson, Community Development
Tom Burford, Community Development
Daniel Breg
Meredith Parkin, Stantec
Kim Clyma, Stantec
Lori Denaro
Councilmember Jeff Harris
Bill Busath
Meagan Luevano, Crocker & Crocker

--o0o--

PUBLIC COMMENTS

--o0o--

MS. EIDAM-CROCKER: All right. Okay. So we are going to talk quickly about the project team is going to be available at every station that we have -- and I know I am standing in front of this. Sorry.

And you can discuss the project directly with all of the subject matter experts or staff that I introduced earlier, and then all of the stations are outlined here on the slide, there's five of them.

And there are comment cards that I hope you received one of which when you first walked in, and there's also a fact sheet, and we also have copies of the NOP.

If you would prefer, there is a court reporter sitting right over here, and you can provide verbal comments and she can type it in for you, or if you just prefer to talk to her about what your comments or concerns are, she will take those down, as well.

Some people find that easier to do and we encourage you to do that, if you prefer.

To submit comments, the information, we are going to leave this slide up for you. You can submit those to Scott Johnson before five o'clock on July 7th. And just a note that the public counter is only open

until four o'clock, and his information is going to be indicated there, as well.

And just to let you know, this is part of the formal environmental process and this is just part of the process to disclose further projects, specifications and information within the Environmental Impact Report.

And, again, this is just the beginning of the public outreach process. There will be further meetings after today.

We really appreciate all of you coming. We know that this is a big project, an important project, and we really appreciate all of you coming, and this is the end of our formal presentation, and we hope that you'll all stay and go to the stations and ask questions to all of the folks over there. So, thank you again.

PUBLIC COMMENTS

MS. KAY OVERMAN: My name is Kay Overman. My question is: Why was there not an open Q&A session?

It appears that they're not willing to take the questions from the public, because they won't want to answer them.

MS. SHEILA WOLFE: Okay. My name is Sheila Wolfe, and I have a few questions.

What is the frequency of the flooding? When the statement came up about it doesn't happen very

06:39:48-06:41:18 Page 5

often, but it does, so what is the data on the frequency of occurrence? And what are the dates on those?

The second question is: We all recently went through -- I love that you can type and not look -- that we all went -- we had a big sewer upgrade and we -- our flooding on 33rd Street was significantly reduced.

I am in the lowest spot, and I know that the sewer upgrades, which were a gigantic hassle, made a difference.

So in what capacity were those things done in relation to now with regards to the vault?

My next question relates to, they said, well, they are saying this is the best place, and I wondered about the -- what was the evaluation criteria to choose the best place?

And how did these other places compare with one another, what criteria? What's the definition of the best place?

And I wondered about those photos that were used.

MS. KAY OVERMAN: They're ancient.

MS. SHEILA WOLFE: What were the dates on the photos? Was that prior to the sewer replacement or post?

And I wondered also about choosing that spot

06:41:24-06:42:56 Page 6

in the ball field as opposed to --

MS. KAY OVERMAN: -- the soccer field --

MS. SHEILA WOLFE: -- or the separate garden or the soccer field? I mean, what's the criteria?

It's not clear to us what process was used to determine location and any of the other places that were considered.

And one last question. I'm sorry.

Well, we were told, so we understand that at one point the proposal for the vault was to be at McKinley Village and the -- so we understood that at one point there was a consideration for the placing -- the vault being at McKinley Village in the yet to be developed areas.

But as I hear on the gossip rumor mill, I don't know this as a fact, is that the developers actually convinced the decision makers that it would be perhaps bad for business to have it at McKinley Village.

And, I guess, what's the validity of the process that went through to consider McKinley Park versus McKinley Village?

MS. PATTY BONNSTETTER: Which is undeveloped --

THE REPORTER: What's your name?

MS. PATTY BONNSTETTER: Patty Bonnstetter.

06:43:16-06:44:55 Page 7

There is an undeveloped area in McKinley Village right now where there are no homes.

It would seem that would be a good place to disrupt, rather than the park, but they're going to tear up the park.

MS. KAY OVERMAN: Okay.

MS. ANN BRODERICK: I have another one. Okay. He said it's only going to be used in extreme cases.

This seems like a huge amount of effort and expense for that. So how do they justify that?

And my next question is: When it's not being used, will it be emptied or will there be waste sitting there in it?

Is it proven technology that works, the vault itself?

Is it actually someplace else at this capacity of a million cubic feet? Or is this actually the first one they've ever built that large and are we just going to be guinea pigs?

Because what I heard is that the one in Oak Park is not working well, and that's documented that it's not working well, so why do they think a bigger one at McKinley or anyplace would work better?

MS. KAY OVERMAN: Okay. I have another one.

My understanding is that the one over in Oak

06:44:58-06:45:55 Page 8

Park, they haven't been able to get stuff to grow consistently on top of it, so there's a bunch of dirt.

MS. ANN BRODERICK: Yes, and I heard that from the city.

MS. KAY OVERMAN: And that could be a problem here. And the same thing happens --

MS. ANN BRODERICK: In fact, I heard about this project, because I asked when they were going to replant the trees, because we've lost so many trees.

MS. KAY OVERMAN: Dozens of trees.

MS. ANN BRODERICK: So I asked the city when are they going to replant, and this is when I first heard about this project, that they may not replant the trees, which is pretty sad, when we used to have a park full of trees, they're saying we may not have any trees.

MS. KAY OVERMAN: Good point.

MS. ANN BRODERICK: Will we really have grass growing, green grass growing for people to use, because it's used every night out here. Every night it's used by soccer kids --

MS. KAY OVERMAN: Frisbee sometimes.

MS. ANN BRODERICK: -- everyone, everybody comes here.

So when are they going to be notified that they can't use it for possibly a two-year period of

06:45:57-06:47:19 Page 9

time?
MS. KAY OVERMAN: What parts of the park will be closed down while they're doing the construction?
That's going to have a huge impact on play facilities for kids, you know, even if they don't close the playground. We have weddings --
MS. ANN BRODERICK: -- weddings, parties, everything.
MS. KAY OVERMAN: This is one of the most popular parks in all of Sacramento.
Why choose this one, when they could be -- this could be put anywhere in East Sacramento, a field that nobody uses. Why here?
MS. ANN BRODERICK: Most cities now, most cities now are going with a two-part system, sewer/rain drain off. That's what all the cities are doing on the East Coast, the Midwest, and barely any in the West Coast.
MR. ALFREDO CZERWINSKI: They said there's one in the whole place.
MS. ANN BRODERICK: I know, because we don't have any money, I guess. I don't know why it is, but people on the East Coast are going with separate systems, because that is the ideal method of doing -- working with both water systems.

06:47:21-06:48:29 Page 10

So why weren't we going in that direction?
Why are we just putting a band-aid on it, when eventually we'll have to have separate systems? That's going to be mandated, it's my impression, by the federal government that we have to have separate systems, so why are we spending a fortune building a combined one?
And the other question is: Who is paying for it? Who really is paying for all of this?
MS. KAY OVERMAN: Well, they said they will increase our water bills. We are.
MS. SHEILA WOLFE: So the question is, that's a question about how do the two processes compare, the proposal that we are moving forward and the two systems?
MS. ANN BRODERICK: Isn't that the question? Is a separate system the ideal method?
MS. SHEILA WOLFE: Right, but we're proposing that. I guess we're asking questions to say --
MS. ANN BRODERICK: Why won't they consider it?
MS. SHEILA WOLFE: -- or how do those two compare or why was that formed?
I mean, why was this decision made as opposed to this decision? If they are going to respond to these questions, it's really good to have a question as opposed to a statement, because then you have to

06:48:31-06:51:06 Page 11

respond.
And I appreciate that, because we don't want to pontificate. I want a real answer.
MR. ALFREDO CZERWINSKI: Since it was missing from tonight's presentation, I would like to know what opportunity there will be for the public to hear each other's questions and then comment answers.
It seems to me tonight's event is a little flawed in it, meaning 40 of us have the same question, we're supposed to ask it 40 times one-on-one of these so-called experts?
But it would have saved a lot of time if one person could raise their hand, ask a question, and 39 of us would go, "Oh, I see. I had that same question."
I'm not too violently complaining but I am complaining. This was not as helpful as it could have been. They could have spent 10 minutes with open Q&A and we could have been done.
So my question is: How are they going to fix what I just complained about it?
MR. CHRIS DROUIN: I believe that the choice in the baseball field is not a good choice. It will disrupt the quality of life for people, the citizens of Sacramento, and that the siting could be made more appropriately in McKinley Park, over in the parkway

06:51:10-06:55:54 Page 12

area, where the bulk of the water problem is.
The water problem appears to be over there, and the city engineer or the guy who is the engineer over there was saying that the concern was about the trees that might be disrupted.
I'd be concerned that there would not only be trees disrupted here, but people use that baseball field a lot and would make, you know, it would be disruptive for years for the public, where that is not as well used an area, it is not used routinely and, therefore, would be a better choice.
MS. VICTORIA TANFORAN: Okay. So they are not taking questions; right?
I think -- so, we live right at the corner of 33rd and Park. So, basically, our property double fronts the park, so we definitely have a very personal interest in this. We just purchased this house early this year and it's everything to us.
We understand that there's a significant need for a solution to the flooding problem around here and we're both pro solving that. However, the potential risk of having something like that right outside of our door is something that's concerning from two perspectives: 1) The construction. We have faith that this is going to happen efficiently and respectfully as

06:55:59-06:57:30 Page 13

possible; however, I'd like to know more about what the risks are to our property in that construction phase.

And also knowing that there's going to be some sort of parameters around that construction, things that are going to be, like, noise and smell and things like that, so that we might still have a chance of enjoying our property, so that's the first point of it.

The second component of it, once it's in operation, my understanding is that this water is going to be contained in this vault, and then it's, basically, going to somehow be filtered back into whatever body of water.

What I would like to know is: How is that water getting there?

And if that system fails, how at risk is our -- our properties? What happens if that system fails, this one million cubic feet of water and then transient to some other body of water.

So those are my biggest concerns.

What have you got to say?

MR. KONRAD KNUTSEN: So they talk about alternatives, and part of the EIR phase is to also examine potential alternatives, so just some -- I am sure we'll hear more about other ways to mitigate this wastewater back up, during this water vault, so I'm

06:57:36-06:58:40 Page 14

interested in that.

I had a question on the, some of the ingress/egress of the water, but you already addressed that.

The photos that were referenced, I want to know when they were. I mean, if they were this past year, that's alarming, but if they were back in 1995 or pre-2000? We have been doing pretty well.

MS. VICTORIA TANFORAN: How significant is that issue?

MR. KONRAD KNUTSEN: So were there some other changes made between then and now, because this was a pretty significant storm that we just had?

So why didn't we see backups to the magnitude of the photos?

MS. VICTORIA TANFORAN: And not to interrupt you, but our house is in the red zone on those maps, and we just did full inspections on this thing.

There was zero flood damage after one of the biggest floods in more recent history, so how big is the problem? Really?

Is it big enough to compromise our whole lifestyle that we just purchased?

MR. KONRAD KNUTSEN: So yeah, yeah, I think it's -- everything we talked about, you know, it's going

06:58:44-07:14:45 Page 15

to -- it's going to be an eyesore.

That's kind of unfortunate for a year-and-a-half where part of the park will be sort of decommissioned for a while until that gets -- this gets running, and yeah, there's just -- I was hoping to come tonight and hear more specifics and less of what I was able to glean from the website.

MS. VICTORIA TANFORAN: It sounds like maybe they're not in the phase yet, but in this community people really appreciate this park, this amenity, this lifestyle around here.

And it seems like it would have been more appropriate to start these public outreach meetings specifically addressing the human aspect as opposed to, oh, the laundry list of other aspects that they had listed.

To me it was interesting that of the three things on that list that were omitted, homes and people were omitted from that list, and that to me seems a little bit backwards in the way you want to address such a major project in an area that's soon to be -- where so many people care about their environment. I mean --

MS. ANN BRODERICK: So some of the issues about the community outreach is the fact that the age group in McKinley Park is a little bit older than a lot

07:14:48-07:28:08 Page 16

of other groups, so they don't do a lot of social media, and some of these people barely know how to use a computer, so they really should do more outreach, like television, radio.

Jeff Harris and his meetings, I have been to several Jeff Harris meetings. I have asked it twice in both meetings. I was shut down, to say that will be discussed at some other meetings.

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He is representing -- if he is, he should do that in a way where he answers the questions in any meetings that he's conducting.

(Whereupon the proceedings were concluded at 7:28 p.m.)

CERTIFICATE OF CERTIFIED SHORTHAND REPORTER

I, LINDA J. HART, a Certified Shorthand Reporter, licensed by the State of California, being empowered to administer oaths and affirmations pursuant to Section 2093(b) of the Code of Civil Procedure, do hereby certify:

That the said proceeding was taken before me in shorthand writing, and was thereafter transcribed, under my direction, by computer-assisted transcription;

That the foregoing transcript constitutes a true and correct record of the proceedings which then and there took place;

That I am a disinterested person to the said action;

IN WITNESS WHEREOF, I have hereunto subscribed my signature on this 21st day of June, 2017.

Linda Hart

LINDA J. HART, RMR/CRR
California CSR # 4357

L.J. HART & ASSOCIATES, INC.
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Certified Shorthand Reporters
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Job No. 17-7043 ljh

CROCKER & CROCKER
Attn: LUCY EIDAM-CROCKER
1614 - 19th Street
Sacramento, California 95811

--o0o

Re: McKINLEY WATER VAULT - SCOPING MEETING
Date taken: June 19, 2017

--o0o--

Dear Ms. Eidam-Crocker:

We wish to inform you of the disposition of this original transcript. The following procedure is being taken by our office.

_XX_ The original is being forwarded to your office.

Sincerely,

L.J. HART & ASSOCIATES, INC.
BARRON & RICH
Certified Shorthand Reporters

In The Matter Of:

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

McKINLEY WATER VAULT ENVIRONMENTAL IMPACT REPORT

06.19.17 SCOPING MEETING

June 19, 2017

L.J. HART & ASSOCIATES, INC. / BARRON & RICH

1900 Point West Way, Suite 277

Sacramento, CA 95815

916-922-9001

production@ljhart.com

CITY OF SACRAMENTO

DEPARTMENT OF UTILITIES

McKINLEY WATER VAULT

--o0o--

ENVIRONMENTAL IMPACT REPORT

SCOPING MEETING

Monday, June 19, 2017, 6:00 p.m.

Clunie Grand Hall

601 Alhambra Boulevard

Sacramento, California

--o0o--

L.J. HART & ASSOCIATES, INC.
BARRON & RICH
Certified Shorthand Reporters

Reported by: LINDA J. HART, CSR License 4357, RMR/CRR

A P P E A R A N C E S

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES
By: JAMES YORITA, Project Manager
McKinleyWaterVault@cityofsacramento.org
CityofSacramento.org/McKinleyWaterVault
916.808.5545

CROCKER & CROCKER
By: LUCY EIDAM CROCKER, Facilitator
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Lucy@crockercrocker.com
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Also present:

Brett Grant, Supervising Engineer, Utilities
Scott Johnson, Community Development
Tom Burford, Community Development
Daniel Breg
Meredith Parkin, Stantec
Kim Clyma, Stantec
Lori Denaro
Councilmember Jeff Harris
Bill Busath
Meagan Luevano, Crocker & Crocker

--o0o--

PUBLIC COMMENTS

--o0o--

06:35:01 MS. EIDAM-CROCKER: All right. Okay. So we
06:35:09 are going to talk quickly about the project team is
06:35:15 going to be available at every station that we have --
06:35:18 and I know I am standing in front of this. Sorry.
06:35:22 And you can discuss the project directly with
06:35:24 all of the subject matter experts or staff that I
06:35:29 introduced earlier, and then all of the stations are
06:35:31 outlined here on the slide, there's five of them.
06:35:34 And there are comment cards that I hope you
06:35:37 received one of which when you first walked in, and
06:35:39 there's also a fact sheet, and we also have copies of
06:35:42 the NOP.
06:35:45 If you would prefer, there is a court reporter
06:35:47 sitting right over here, and you can provide verbal
06:35:51 comments and she can type it in for you, or if you just
06:35:54 prefer to talk to her about what your comments or
06:35:56 concerns are, she will take those down, as well.
06:36:00 Some people find that easier to do and we
06:36:04 encourage you to do that, if you prefer.
06:36:07 To submit comments, the information, we are
06:36:13 going to leave this slide up for you. You can submit
06:36:16 those to Scott Johnson before five o'clock on July 7th.
06:36:22 And just a note that the public counter is only open

06:36:25 until four o'clock, and his information is going to be
06:36:29 indicated there, as well.
06:36:32 And just to let you know, this is part of the
06:36:36 formal environmental process and this is just part of
06:36:42 the process to disclose further projects, specifications
06:36:46 and information within the Environmental Impact Report.
06:36:49 And, again, this is just the beginning of the
06:36:51 public outreach process. There will be further meetings
06:36:54 after today.
06:36:56 We really appreciate all of you coming. We
06:36:59 know that this is a big project, an important project,
06:37:03 and we really appreciate all of you coming, and this is
06:37:07 the end of our formal presentation, and we hope that
06:37:09 you'll all stay and go to the stations and ask questions
06:37:14 to all of the folks over there. So, thank you again.
06:37:24 PUBLIC COMMENTS
06:37:24 MS. KAY OVERMAN: My name is Kay Overman. My
06:39:01 question is: Why was there not an open Q&A session?
06:39:04 It appears that they're not willing to take
06:39:07 the questions from the public, because they won't want
06:39:31 to answer them.
06:39:32 MS. SHEILA WOLFE: Okay. My name is Sheila
06:39:38 Wolfe, and I have a few questions.
06:39:40 What is the frequency of the flooding? When
06:39:46 the statement came up about it doesn't happen very

often, but it does, so what is the data on the frequency of occurrence? And what are the dates on those?

The second question is: We all recently went through -- I love that you can type and not look -- that we all went -- we had a big sewer upgrade and we -- our flooding on 33rd Street was significantly reduced.

I am in the lowest spot, and I know that the sewer upgrades, which were a gigantic hassle, made a difference.

So in what capacity were those things done in relation to now with regards to the vault?

My next question relates to, they said, well, they are saying this is the best place, and I wondered about the -- what was the evaluation criteria to choose the best place?

And how did these other places compare with one another, what criteria? What's the definition of the best place?

And I wondered about those photos that were used.

MS. KAY OVERMAN: They're ancient.

MS. SHEILA WOLFE: What were the dates on the photos? Was that prior to the sewer replacement or post?

And I wondered also about choosing that spot

in the ball field as opposed to --

MS. KAY OVERMAN: -- the soccer field --

MS. SHEILA WOLFE: -- or the separate garden or the soccer field? I mean, what's the criteria?

It's not clear to us what process was used to determine location and any of the other places that were considered.

And one last question. I'm sorry.

Well, we were told, so we understand that at one point the proposal for the vault was to be at McKinley Village and the -- so we understood that at one point there was a consideration for the placing -- the vault being at McKinley Village in the yet to be developed areas.

But as I hear on the gossip rumor mill, I don't know this as a fact, is that the developers actually convinced the decision makers that it would be perhaps bad for business to have it at McKinley Village.

And, I guess, what's the validity of the process that went through to consider McKinley Park versus McKinley Village?

MS. PATTY BONNSTETTER: Which is undeveloped --

THE REPORTER: What's your name?

MS. PATTY BONNSTETTER: Patty Bonnstetter.

06:43:16 There is an undeveloped area in McKinley Village right
06:43:18 now where there are no homes.
06:43:22 It would seem that would be a good place to
06:43:24 disrupt, rather than the park, but they're going to tear
06:43:30 up the park.
06:43:39 MS. KAY OVERMAN: Okay.
06:43:40 MS. ANN BRODERICK: I have another one. Okay.
06:43:41 He said it's only going to be used in extreme cases.
06:43:47 This seems like a huge amount of effort and
06:43:49 expense for that. So how do they justify that?
06:43:56 And my next question is: When it's not being
06:44:02 used, will it be emptied or will there be waste sitting
06:44:06 there in it?
06:44:07 Is it proven technology that works, the vault
06:44:16 itself?
06:44:16 Is it actually someplace else at this capacity
06:44:19 of a million cubic feet? Or is this actually the first
06:44:23 one they've ever built that large and are we just going
06:44:29 to be guinea pigs?
06:44:29 Because what I heard is that the one in Oak
06:44:31 Park is not working well, and that's documented that
06:44:34 it's not working well, so why do they think a bigger one
06:44:38 at McKinley or anyplace would work better?
06:44:40 MS. KAY OVERMAN: Okay. I have another one.
06:44:55 My understanding is that the one over in Oak

06:44:58 Park, they haven't been able to get stuff to grow
06:45:01 consistently on top of it, so there's a bunch of dirt.
06:45:07 MS. ANN BRODERICK: Yes, and I heard that from
06:45:09 the city.
06:45:09 MS. KAY OVERMAN: And that could be a problem
06:45:09 here. And the same thing happens --
06:45:09 MS. ANN BRODERICK: In fact, I heard about
06:45:09 this project, because I asked when they were going to
06:45:20 replant the trees, because we've lost so many trees.
06:45:21 MS. KAY OVERMAN: Dozens of trees.
06:45:22 MS. ANN BRODERICK: So I asked the city when
06:45:23 are they going to replant, and this is when I first
06:45:25 heard about this project, that they may not replant the
06:45:28 trees, which is pretty sad, when we used to have a park
06:45:32 full of trees, they're saying we may not have any trees.
06:45:37 MS. KAY OVERMAN: Good point.
06:45:37 MS. ANN BRODERICK: Will we really have grass
06:45:40 growing, green grass growing for people to use, because
06:45:43 it's used every night out here. Every night it's used
06:45:46 by soccer kids --
06:45:49 MS. KAY OVERMAN: Frisbee sometimes.
06:45:51 MS. ANN BRODERICK: -- everyone, everybody
06:45:53 comes here.
06:45:53 So when are they going to be notified that
06:45:55 they can't use it for possibly a two-year period of

time?

MS. KAY OVERMAN: What parts of the park will be closed down while they're doing the construction?

That's going to have a huge impact on play facilities for kids, you know, even if they don't close the playground. We have weddings --

MS. ANN BRODERICK: -- weddings, parties, everything.

MS. KAY OVERMAN: This is one of the most popular parks in all of Sacramento.

Why choose this one, when they could be -- this could be put anywhere in East Sacramento, a field that nobody uses. Why here?

MS. ANN BRODERICK: Most cities now, most cities now are going with a two-part system, sewer/rain drain off. That's what all the cities are doing on the East Coast, the Midwest, and barely any in the West Coast.

MR. ALFREDO CZERWINSKI: They said there's one in the whole place.

MS. ANN BRODERICK: I know, because we don't have any money, I guess. I don't know why it is, but people on the East Coast are going with separate systems, because that is the ideal method of doing -- working with both water systems.

So why weren't we going in that direction?

Why are we just putting a band-aid on it, when eventually we'll have to have separate systems? That's going to be mandated, it's my impression, by the federal government that we have to have separate systems, so why are we spending a fortune building a combined one?

And the other question is: Who is paying for it? Who really is paying for all of this?

MS. KAY OVERMAN: Well, they said they will increase our water bills. We are.

MS. SHEILA WOLFE: So the question is, that's a question about how do the two processes compare, the proposal that we are moving forward and the two systems?

MS. ANN BRODERICK: Isn't that the question? Is a separate system the ideal method?

MS. SHEILA WOLFE: Right, but we're proposing that. I guess we're asking questions to say --

MS. ANN BRODERICK: Why won't they consider it?

MS. SHEILA WOLFE: -- or how do those two compare or why was that formed?

I mean, why was this decision made as opposed to this decision? If they are going to respond to these questions, it's really good to have a question as opposed to a statement, because then you have to

respond.

And I appreciate that, because we don't want to pontificate. I want a real answer.

MR. ALFREDO CZERWINSKI: Since it was missing from tonight's presentation, I would like to know what opportunity there will be for the public to hear each other's questions and then comment answers.

It seems to me tonight's event is a little flawed in it, meaning 40 of us have the same question, we're supposed to ask it 40 times one-on-one of these so-called experts?

But it would have saved a lot of time if one person could raise their hand, ask a question, and 39 of us would go, "Oh, I see. I had that same question."

I'm not too violently complaining but I am complaining. This was not as helpful as it could have been. They could have spent 10 minutes with open Q&A and we could have been done.

So my question is: How are they going to fix what I just complained about it?

MR. CHRIS DROUIN: I believe that the choice in the baseball field is not a good choice. It will disrupt the quality of life for people, the citizens of Sacramento, and that the siting could be made more appropriately in McKinley Park, over in the parkway

area, where the bulk of the water problem is.

The water problem appears to be over there, and the city engineer or the guy who is the engineer over there was saying that the concern was about the trees that might be disrupted.

I'd be concerned that there would not only be trees disrupted here, but people use that baseball field a lot and would make, you know, it would be disruptive for years for the public, where that is not as well used an area, it is not used routinely and, therefore, would be a better choice.

MS. VICTORIA TANFORAN: Okay. So they are not taking questions; right?

I think -- so, we live right at the corner of 33rd and Park. So, basically, our property double fronts the park, so we definitely have a very personal interest in this. We just purchased this house early this year and it's everything to us.

We understand that there's a significant need for a solution to the flooding problem around here and we're both pro solving that. However, the potential risk of having something like that right outside of our door is something that's concerning from two perspectives: 1) The construction. We have faith that this is going to happen efficiently and respectfully as

possible; however, I'd like to know more about what the risks are to our property in that construction phase.

And also knowing that there's going to be some sort of parameters around that construction, things that are going to be, like, noise and smell and things like that, so that we might still have a chance of enjoying our property, so that's the first point of it.

The second component of it, once it's in operation, my understanding is that this water is going to be contained in this vault, and then it's, basically, going to somehow be filtered back into whatever body of water.

What I would like to know is: How is that water getting there?

And if that system fails, how at risk is our -- our properties? What happens if that system fails, this one million cubic feet of water and then transient to some other body of water.

So those are my biggest concerns.

What have you got to say?

MR. KONRAD KNUTSEN: So they talk about alternatives, and part of the EIR phase is to also examine potential alternatives, so just some -- I am sure we'll hear more about other ways to mitigate this wastewater back up, during this water vault, so I'm

interested in that.

I had a question on the, some of the ingress/egress of the water, but you already addressed that.

The photos that were referenced, I want to know when they were. I mean, if they were this past year, that's alarming, but if they were back in 1995 or pre-2000? We have been doing pretty well.

MS. VICTORIA TANFORAN: How significant is that issue?

MR. KONRAD KNUTSEN: So were there some other changes made between then and now, because this was a pretty significant storm that we just had?

So why didn't we see backups to the magnitude of the photos?

MS. VICTORIA TANFORAN: And not to interrupt you, but our house is in the red zone on those maps, and we just did full inspections on this thing.

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California CSR # 4357

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Job No. 17-7043 ljh

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Attn: LUCY EIDAM-CROCKER
1614 - 19th Street
Sacramento, California 95811

--o0o

Re: McKINLEY WATER VAULT - SCOPING MEETING
Date taken: June 19, 2017

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BARRON & RICH
Certified Shorthand Reporters

Appendix B CALEEMOD RESULTS

McKinley Water Vault Project

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.80	1000sqft	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Non-default values based on the project description

Land Use -

Construction Phase - Non-default values based on Project Description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Off-road Equipment - Non-default values based on project description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Trips and VMT - Non-default values based on project description. Hauling = 85,000 cu yards total, 18 cu yrds per truck = 4,722 total trips

Grading - Non-default values based on project description

Architectural Coating - Non-default values based on project description

Energy Use -

Construction Off-road Equipment Mitigation - non-default valules based on the PD

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	230.00	65.00
tblConstructionPhase	NumDays	8.00	260.00
tblConstructionPhase	NumDays	8.00	110.00
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/24/2020	11/27/2020
tblConstructionPhase	PhaseEndDate	10/25/2019	3/27/2020
tblConstructionPhase	PhaseEndDate	11/22/2019	8/29/2020
tblConstructionPhase	PhaseStartDate	11/23/2019	8/31/2020
tblConstructionPhase	PhaseStartDate	10/26/2019	3/30/2020
tblGrading	AcresOfGrading	130.00	0.00
tblGrading	AcresOfGrading	55.00	4.00
tblGrading	MaterialExported	0.00	85,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	10,625.00	4,722.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	36.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	18.00
tblTripsAndVMT	WorkerTripNumber	91.00	18.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3606	4.2306	2.2002	5.2200e-003	1.2058	0.1849	1.3907	0.6445	0.1702	0.8146	0.0000	479.3904	479.3904	0.1117	0.0000	482.1823
2020	0.2906	3.0822	2.0274	4.0400e-003	1.1716	0.1472	1.3187	0.6260	0.1362	0.7621	0.0000	358.2178	358.2178	0.0943	0.0000	360.5739
Total	**0.6513**	**7.3129**	**4.2276**	**9.2600e-003**	**2.3774**	**0.3320**	**2.7094**	**1.2704**	**0.3063**	**1.5767**	**0.0000**	**837.6081**	**837.6081**	**0.2059**	**0.0000**	**842.7562**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3606	4.2306	2.2002	5.2200e-003	1.2058	0.1849	1.3907	0.6445	0.1702	0.8146	0.0000	479.3900	479.3900	0.1117	0.0000	482.1819
2020	0.2906	3.0822	2.0274	4.0400e-003	1.1716	0.1472	1.3187	0.6260	0.1362	0.7621	0.0000	358.2174	358.2174	0.0943	0.0000	360.5735
Total	**0.6513**	**7.3129**	**4.2276**	**9.2600e-003**	**2.3774**	**0.3320**	**2.7094**	**1.2704**	**0.3063**	**1.5767**	**0.0000**	**837.6074**	**837.6074**	**0.2059**	**0.0000**	**842.7554**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9518	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003
Energy	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	1,399.5732	1,399.5732	0.0524	0.0168	1,405.9022
Mobile	0.3715	1.6293	4.5374	0.0140	1.1828	0.0125	1.1953	0.3172	0.0117	0.3289	0.0000	1,281.9916	1,281.9916	0.0623	0.0000	1,283.5479
Waste						0.0000	0.0000		0.0000	0.0000	54.8218	0.0000	54.8218	3.2399	0.0000	135.8186
Water						0.0000	0.0000		0.0000	0.0000	17.8197	73.0057	90.8253	0.0646	0.0394	104.1928
Total	**1.3656**	**2.0128**	**4.8623**	**0.0163**	**1.1828**	**0.0416**	**1.2245**	**0.3172**	**0.0409**	**0.3580**	**72.6414**	**2,754.5758**	**2,827.2173**	**3.4192**	**0.0563**	**2,929.4672**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.9518	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003
Energy	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	1,399.5732	1,399.5732	0.0524	0.0168	1,405.9022
Mobile	0.3715	1.6293	4.5374	0.0140	1.1828	0.0125	1.1953	0.3172	0.0117	0.3289	0.0000	1,281.9916	1,281.9916	0.0623	0.0000	1,283.5479
Waste						0.0000	0.0000		0.0000	0.0000	54.8218	0.0000	54.8218	3.2399	0.0000	135.8186
Water						0.0000	0.0000		0.0000	0.0000	17.8197	73.0057	90.8253	0.0646	0.0394	104.1928
Total	**1.3656**	**2.0128**	**4.8623**	**0.0163**	**1.1828**	**0.0416**	**1.2245**	**0.3172**	**0.0409**	**0.3580**	**72.6414**	**2,754.5758**	**2,827.2173**	**3.4192**	**0.0563**	**2,929.4672**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/7/2019	3/29/2019	5	60	
2	Excavation	Grading	3/30/2019	3/27/2020	5	260	
3	Grading	Grading	3/30/2020	8/29/2020	5	110	
4	Building Construction	Building Construction	8/31/2020	11/27/2020	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Excavation	Excavators	1	8.00	158	0.38
Excavation	Graders	1	8.00	187	0.41
Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	6	15.00	1.00	4,722.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	1.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0820	0.8647	0.3952	7.0000e-004		0.0447	0.0447		0.0411	0.0411	0.0000	62.7574	62.7574	0.0199	0.0000	63.2538
Total	**0.0820**	**0.8647**	**0.3952**	**7.0000e-004**	**0.3613**	**0.0447**	**0.4060**	**0.1986**	**0.0411**	**0.2397**	**0.0000**	**62.7574**	**62.7574**	**0.0199**	**0.0000**	**63.2538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.5300e-003	0.0166	4.0000e-005	3.9700e-003	3.0000e-005	4.0000e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.6254	3.6254	1.1000e-004	0.0000	3.6282
Total	**2.1800e-003**	**1.5300e-003**	**0.0166**	**4.0000e-005**	**3.9700e-003**	**3.0000e-005**	**4.0000e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.6254**	**3.6254**	**1.1000e-004**	**0.0000**	**3.6282**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3613	0.0000	0.3613	0.1986	0.0000	0.1986	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0820	0.8647	0.3952	7.0000e-004		0.0447	0.0447		0.0411	0.0411	0.0000	62.7574	62.7574	0.0199	0.0000	63.2538
Total	**0.0820**	**0.8647**	**0.3952**	**7.0000e-004**	**0.3613**	**0.0447**	**0.4060**	**0.1986**	**0.0411**	**0.2397**	**0.0000**	**62.7574**	**62.7574**	**0.0199**	**0.0000**	**63.2538**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.5300e-003	0.0166	4.0000e-005	3.9700e-003	3.0000e-005	4.0000e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.6254	3.6254	1.1000e-004	0.0000	3.6282
Total	**2.1800e-003**	**1.5300e-003**	**0.0166**	**4.0000e-005**	**3.9700e-003**	**3.0000e-005**	**4.0000e-003**	**1.0500e-003**	**3.0000e-005**	**1.0800e-003**	**0.0000**	**3.6254**	**3.6254**	**1.1000e-004**	**0.0000**	**3.6282**

3.3 Excavation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7917	0.0000	0.7917	0.4317	0.0000	0.4317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2542	2.7923	1.6049	2.9200e-003		0.1376	0.1376		0.1266	0.1266	0.0000	262.4263	262.4263	0.0830	0.0000	264.5020
Total	**0.2542**	**2.7923**	**1.6049**	**2.9200e-003**	**0.7917**	**0.1376**	**0.9293**	**0.4317**	**0.1266**	**0.5583**	**0.0000**	**262.4263**	**262.4263**	**0.0830**	**0.0000**	**264.5020**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0158	0.5558	0.1345	1.4200e-003	0.0375	2.3400e-003	0.0398	0.0101	2.2400e-003	0.0123	0.0000	138.3165	138.3165	8.2200e-003	0.0000	138.5221
Vendor	4.7000e-004	0.0121	3.6900e-003	2.0000e-005	5.8000e-004	9.0000e-005	6.6000e-004	1.7000e-004	8.0000e-005	2.5000e-004	0.0000	2.3452	2.3452	1.5000e-004	0.0000	2.3489
Worker	5.9700e-003	4.2000e-003	0.0453	1.1000e-004	0.0109	8.0000e-005	0.0109	2.8900e-003	7.0000e-005	2.9600e-003	0.0000	9.9196	9.9196	3.1000e-004	0.0000	9.9273
Total	**0.0222**	**0.5721**	**0.1835**	**1.5500e-003**	**0.0489**	**2.5100e-003**	**0.0514**	**0.0131**	**2.3900e-003**	**0.0155**	**0.0000**	**150.5812**	**150.5812**	**8.6800e-003**	**0.0000**	**150.7982**

3.3 Excavation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7917	0.0000	0.7917	0.4317	0.0000	0.4317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2542	2.7923	1.6049	2.9200e-003		0.1376	0.1376		0.1266	0.1266	0.0000	262.4260	262.4260	0.0830	0.0000	264.5017
Total	**0.2542**	**2.7923**	**1.6049**	**2.9200e-003**	**0.7917**	**0.1376**	**0.9293**	**0.4317**	**0.1266**	**0.5583**	**0.0000**	**262.4260**	**262.4260**	**0.0830**	**0.0000**	**264.5017**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0158	0.5558	0.1345	1.4200e-003	0.0375	2.3400e-003	0.0398	0.0101	2.2400e-003	0.0123	0.0000	138.3165	138.3165	8.2200e-003	0.0000	138.5221
Vendor	4.7000e-004	0.0121	3.6900e-003	2.0000e-005	5.8000e-004	9.0000e-005	6.6000e-004	1.7000e-004	8.0000e-005	2.5000e-004	0.0000	2.3452	2.3452	1.5000e-004	0.0000	2.3489
Worker	5.9700e-003	4.2000e-003	0.0453	1.1000e-004	0.0109	8.0000e-005	0.0109	2.8900e-003	7.0000e-005	2.9600e-003	0.0000	9.9196	9.9196	3.1000e-004	0.0000	9.9273
Total	**0.0222**	**0.5721**	**0.1835**	**1.5500e-003**	**0.0489**	**2.5100e-003**	**0.0514**	**0.0131**	**2.3900e-003**	**0.0155**	**0.0000**	**150.5812**	**150.5812**	**8.6800e-003**	**0.0000**	**150.7982**

3.3 Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7917	0.0000	0.7917	0.4317	0.0000	0.4317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0765	0.8312	0.5057	9.3000e-004		0.0401	0.0401		0.0369	0.0369	0.0000	82.0851	82.0851	0.0266	0.0000	82.7488
Total	**0.0765**	**0.8312**	**0.5057**	**9.3000e-004**	**0.7917**	**0.0401**	**0.8318**	**0.4317**	**0.0369**	**0.4686**	**0.0000**	**82.0851**	**82.0851**	**0.0266**	**0.0000**	**82.7488**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-003	0.1644	0.0371	4.5000e-004	0.0324	5.9000e-004	0.0330	8.2200e-003	5.6000e-004	8.7900e-003	0.0000	43.7719	43.7719	2.5400e-003	0.0000	43.8355
Vendor	1.2000e-004	3.5300e-003	9.9000e-004	1.0000e-005	1.8000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7453	0.7453	4.0000e-005	0.0000	0.7464
Worker	1.7600e-003	1.1900e-003	0.0131	3.0000e-005	3.4700e-003	2.0000e-005	3.5000e-003	9.2000e-004	2.0000e-005	9.5000e-004	0.0000	3.0747	3.0747	9.0000e-005	0.0000	3.0769
Total	**6.2800e-003**	**0.1691**	**0.0512**	**4.9000e-004**	**0.0360**	**6.3000e-004**	**0.0367**	**9.1900e-003**	**6.0000e-004**	**9.8100e-003**	**0.0000**	**47.5920**	**47.5920**	**2.6700e-003**	**0.0000**	**47.6589**

3.3 Excavation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7917	0.0000	0.7917	0.4317	0.0000	0.4317	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0765	0.8312	0.5057	9.3000e-004		0.0401	0.0401		0.0369	0.0369	0.0000	82.0850	82.0850	0.0266	0.0000	82.7487
Total	**0.0765**	**0.8312**	**0.5057**	**9.3000e-004**	**0.7917**	**0.0401**	**0.8318**	**0.4317**	**0.0369**	**0.4686**	**0.0000**	**82.0850**	**82.0850**	**0.0266**	**0.0000**	**82.7487**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-003	0.1644	0.0371	4.5000e-004	0.0324	5.9000e-004	0.0330	8.2200e-003	5.6000e-004	8.7900e-003	0.0000	43.7719	43.7719	2.5400e-003	0.0000	43.8355
Vendor	1.2000e-004	3.5300e-003	9.9000e-004	1.0000e-005	1.8000e-004	2.0000e-005	2.0000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7453	0.7453	4.0000e-005	0.0000	0.7464
Worker	1.7600e-003	1.1900e-003	0.0131	3.0000e-005	3.4700e-003	2.0000e-005	3.5000e-003	9.2000e-004	2.0000e-005	9.5000e-004	0.0000	3.0747	3.0747	9.0000e-005	0.0000	3.0769
Total	**6.2800e-003**	**0.1691**	**0.0512**	**4.9000e-004**	**0.0360**	**6.3000e-004**	**0.0367**	**9.1900e-003**	**6.0000e-004**	**9.8100e-003**	**0.0000**	**47.5920**	**47.5920**	**2.6700e-003**	**0.0000**	**47.6589**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3333	0.0000	0.3333	0.1823	0.0000	0.1823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1336	1.4512	0.8829	1.6300e-003		0.0700	0.0700		0.0644	0.0644	0.0000	143.3231	143.3231	0.0464	0.0000	144.4820
Total	**0.1336**	**1.4512**	**0.8829**	**1.6300e-003**	**0.3333**	**0.0700**	**0.4034**	**0.1823**	**0.0644**	**0.2467**	**0.0000**	**143.3231**	**143.3231**	**0.0464**	**0.0000**	**144.4820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0700e-003	2.0800e-003	0.0228	6.0000e-005	6.0600e-003	4.0000e-005	6.1000e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.3686	5.3686	1.5000e-004	0.0000	5.3724
Total	**3.0700e-003**	**2.0800e-003**	**0.0228**	**6.0000e-005**	**6.0600e-003**	**4.0000e-005**	**6.1000e-003**	**1.6100e-003**	**4.0000e-005**	**1.6500e-003**	**0.0000**	**5.3686**	**5.3686**	**1.5000e-004**	**0.0000**	**5.3724**

3.4 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3333	0.0000	0.3333	0.1823	0.0000	0.1823	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1336	1.4512	0.8829	1.6300e-003		0.0700	0.0700		0.0644	0.0644	0.0000	143.3229	143.3229	0.0464	0.0000	144.4818
Total	**0.1336**	**1.4512**	**0.8829**	**1.6300e-003**	**0.3333**	**0.0700**	**0.4034**	**0.1823**	**0.0644**	**0.2467**	**0.0000**	**143.3229**	**143.3229**	**0.0464**	**0.0000**	**144.4818**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0700e-003	2.0800e-003	0.0228	6.0000e-005	6.0600e-003	4.0000e-005	6.1000e-003	1.6100e-003	4.0000e-005	1.6500e-003	0.0000	5.3686	5.3686	1.5000e-004	0.0000	5.3724
Total	**3.0700e-003**	**2.0800e-003**	**0.0228**	**6.0000e-005**	**6.0600e-003**	**4.0000e-005**	**6.1000e-003**	**1.6100e-003**	**4.0000e-005**	**1.6500e-003**	**0.0000**	**5.3686**	**5.3686**	**1.5000e-004**	**0.0000**	**5.3724**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0689	0.6236	0.5476	8.7000e-004		0.0363	0.0363		0.0341	0.0341	0.0000	75.2732	75.2732	0.0184	0.0000	75.7323
Total	**0.0689**	**0.6236**	**0.5476**	**8.7000e-004**		**0.0363**	**0.0363**		**0.0341**	**0.0341**	**0.0000**	**75.2732**	**75.2732**	**0.0184**	**0.0000**	**75.7323**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.6400e-003	1.0200e-003	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7690	0.7690	5.0000e-005	0.0000	0.7701
Worker	2.1800e-003	1.4800e-003	0.0162	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.8068	3.8068	1.1000e-004	0.0000	3.8095
Total	**2.3000e-003**	**5.1200e-003**	**0.0172**	**5.0000e-005**	**4.4900e-003**	**5.0000e-005**	**4.5400e-003**	**1.1900e-003**	**5.0000e-005**	**1.2400e-003**	**0.0000**	**4.5758**	**4.5758**	**1.6000e-004**	**0.0000**	**4.5796**

3.5 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0689	0.6236	0.5476	8.7000e-004		0.0363	0.0363		0.0341	0.0341	0.0000	75.2732	75.2732	0.0184	0.0000	75.7323
Total	**0.0689**	**0.6236**	**0.5476**	**8.7000e-004**		**0.0363**	**0.0363**		**0.0341**	**0.0341**	**0.0000**	**75.2732**	**75.2732**	**0.0184**	**0.0000**	**75.7323**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.6400e-003	1.0200e-003	1.0000e-005	1.9000e-004	2.0000e-005	2.1000e-004	5.0000e-005	2.0000e-005	7.0000e-005	0.0000	0.7690	0.7690	5.0000e-005	0.0000	0.7701
Worker	2.1800e-003	1.4800e-003	0.0162	4.0000e-005	4.3000e-003	3.0000e-005	4.3300e-003	1.1400e-003	3.0000e-005	1.1700e-003	0.0000	3.8068	3.8068	1.1000e-004	0.0000	3.8095
Total	**2.3000e-003**	**5.1200e-003**	**0.0172**	**5.0000e-005**	**4.4900e-003**	**5.0000e-005**	**4.5400e-003**	**1.1900e-003**	**5.0000e-005**	**1.2400e-003**	**0.0000**	**4.5758**	**4.5758**	**1.6000e-004**	**0.0000**	**4.5796**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3715	1.6293	4.5374	0.0140	1.1828	0.0125	1.1953	0.3172	0.0117	0.3289	0.0000	1,281.9916	1,281.9916	0.0623	0.0000	1,283.5479
Unmitigated	0.3715	1.6293	4.5374	0.0140	1.1828	0.0125	1.1953	0.3172	0.0117	0.3289	0.0000	1,281.9916	1,281.9916	0.0623	0.0000	1,283.5479

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,518.07	287.50	148.10	3,171,102	3,171,102
Total	1,518.07	287.50	148.10	3,171,102	3,171,102

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	982.0880	982.0880	0.0444	9.1900e-003	985.9361
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	982.0880	982.0880	0.0444	9.1900e-003	985.9361
NaturalGas Mitigated	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	417.4851	417.4851	8.0000e-003	7.6500e-003	419.9660
NaturalGas Unmitigated	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	417.4851	417.4851	8.0000e-003	7.6500e-003	419.9660

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	7.82338e+006	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	417.4851	417.4851	8.0000e-003	7.6500e-003	419.9660
Total		**0.0422**	**0.3835**	**0.3221**	**2.3000e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**	**0.0000**	**417.4851**	**417.4851**	**8.0000e-003**	**7.6500e-003**	**419.9660**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	7.82338e+006	0.0422	0.3835	0.3221	2.3000e-003		0.0292	0.0292		0.0292	0.0292	0.0000	417.4851	417.4851	8.0000e-003	7.6500e-003	419.9660
Total		**0.0422**	**0.3835**	**0.3221**	**2.3000e-003**		**0.0292**	**0.0292**		**0.0292**	**0.0292**	**0.0000**	**417.4851**	**417.4851**	**8.0000e-003**	**7.6500e-003**	**419.9660**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.3759e+006	982.0880	0.0444	9.1900e-003	985.9361
Total		**982.0880**	**0.0444**	**9.1900e-003**	**985.9361**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	3.3759e+006	982.0880	0.0444	9.1900e-003	985.9361
Total		**982.0880**	**0.0444**	**9.1900e-003**	**985.9361**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9518	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003
Unmitigated	0.9518	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1010					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003
Total	**0.9518**	**3.0000e-005**	**2.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.4100e-003**	**5.4100e-003**	**1.0000e-005**	**0.0000**	**5.7600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1010					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.8506					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.6000e-004	3.0000e-005	2.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.4100e-003	5.4100e-003	1.0000e-005	0.0000	5.7600e-003
Total	**0.9518**	**3.0000e-005**	**2.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**5.4100e-003**	**5.4100e-003**	**1.0000e-005**	**0.0000**	**5.7600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	90.8253	0.0646	0.0394	104.1928
Unmitigated	90.8253	0.0646	0.0394	104.1928

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	50.3663 / 0	90.8253	0.0646	0.0394	104.1928
Total		**90.8253**	**0.0646**	**0.0394**	**104.1928**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	50.3663 / 0	90.8253	0.0646	0.0394	104.1928
Total		**90.8253**	**0.0646**	**0.0394**	**104.1928**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	54.8218	3.2399	0.0000	135.8186
Unmitigated	54.8218	3.2399	0.0000	135.8186

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	270.07	54.8218	3.2399	0.0000	135.8186
Total		**54.8218**	**3.2399**	**0.0000**	**135.8186**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	270.07	54.8218	3.2399	0.0000	135.8186
Total		**54.8218**	**3.2399**	**0.0000**	**135.8186**

9.0 Operational Offroad

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

10.0 Vegetation

McKinley Water Vault Project

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.80	1000sqft	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Non-default values based on the project description

Land Use -

Construction Phase - Non-default values based on Project Description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Off-road Equipment - Non-default values based on project description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Trips and VMT - Non-default values based on project description. Hauling = 85,000 cu yards total, 18 cu yrds per truck = 4,722 total trips

Grading - Non-default values based on project description

Architectural Coating - Non-default values based on project description

Energy Use -

Construction Off-road Equipment Mitigation - non-default valules based on the PD

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	230.00	65.00
tblConstructionPhase	NumDays	8.00	260.00
tblConstructionPhase	NumDays	8.00	110.00
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/24/2020	11/27/2020
tblConstructionPhase	PhaseEndDate	10/25/2019	3/27/2020
tblConstructionPhase	PhaseEndDate	11/22/2019	8/29/2020
tblConstructionPhase	PhaseStartDate	11/23/2019	8/31/2020
tblConstructionPhase	PhaseStartDate	10/26/2019	3/30/2020
tblGrading	AcresOfGrading	130.00	0.00
tblGrading	AcresOfGrading	55.00	4.00
tblGrading	MaterialExported	0.00	85,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	10,625.00	4,722.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	36.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	18.00
tblTripsAndVMT	WorkerTripNumber	91.00	18.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.8191	33.9485	18.2107	0.0457	12.1811	1.4905	13.6716	6.6568	1.3713	8.0281	0.0000	4,643.8558	4,643.8558	1.0250	0.0000	4,669.4809
2020	2.6352	31.5691	17.7226	0.0455	7.2766	1.2932	8.5698	3.6232	1.1905	4.8137	0.0000	4,559.5777	4,559.5777	1.0213	0.0000	4,585.1109
Total	**5.4544**	**65.5176**	**35.9332**	**0.0912**	**19.4577**	**2.7837**	**22.2415**	**10.2800**	**2.5617**	**12.8417**	**0.0000**	**9,203.4335**	**9,203.4335**	**2.0463**	**0.0000**	**9,254.5918**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.8191	33.9485	18.2107	0.0457	12.1811	1.4905	13.6716	6.6568	1.3713	8.0281	0.0000	4,643.8558	4,643.8558	1.0250	0.0000	4,669.4809
2020	2.6352	31.5691	17.7226	0.0455	7.2766	1.2932	8.5698	3.6232	1.1905	4.8137	0.0000	4,559.5777	4,559.5777	1.0213	0.0000	4,585.1109
Total	**5.4544**	**65.5176**	**35.9332**	**0.0912**	**19.4577**	**2.7837**	**22.2415**	**10.2800**	**2.5617**	**12.8417**	**0.0000**	**9,203.4335**	**9,203.4335**	**2.0463**	**0.0000**	**9,254.5918**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Energy	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Mobile	3.3870	11.3409	37.2784	0.1100	8.9079	0.0904	8.9983	2.3817	0.0847	2.4664		11,125.8477	11,125.8477	0.5150		11,138.7228
Total	**8.8343**	**13.4424**	**39.0658**	**0.1226**	**8.9079**	**0.2502**	**9.1581**	**2.3817**	**0.2444**	**2.6262**		**13,647.5315**	**13,647.5315**	**0.5635**	**0.0462**	**13,675.3946**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Energy	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Mobile	3.3870	11.3409	37.2784	0.1100	8.9079	0.0904	8.9983	2.3817	0.0847	2.4664		11,125.8477	11,125.8477	0.5150		11,138.7228
Total	**8.8343**	**13.4424**	**39.0658**	**0.1226**	**8.9079**	**0.2502**	**9.1581**	**2.3817**	**0.2444**	**2.6262**		**13,647.5315**	**13,647.5315**	**0.5635**	**0.0462**	**13,675.3946**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/7/2019	3/29/2019	5	60	
2	Excavation	Grading	3/30/2019	3/27/2020	5	260	
3	Grading	Grading	3/30/2020	8/29/2020	5	110	
4	Building Construction	Building Construction	8/31/2020	11/27/2020	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Excavation	Excavators	1	8.00	158	0.38
Excavation	Graders	1	8.00	187	0.41
Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	6	15.00	1.00	4,722.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	1.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.7348	28.8236	13.1736	0.0233		1.4896	1.4896		1.3704	1.3704		2,305.9407	2,305.9407	0.7296		2,324.1801
Total	**2.7348**	**28.8236**	**13.1736**	**0.0233**	**12.0442**	**1.4896**	**13.5337**	**6.6205**	**1.3704**	**7.9908**		**2,305.9407**	**2,305.9407**	**0.7296**		**2,324.1801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0843	0.0463	0.6499	1.4800e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		147.3555	147.3555	4.6400e-003		147.4714
Total	**0.0843**	**0.0463**	**0.6499**	**1.4800e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**147.3555**	**147.3555**	**4.6400e-003**		**147.4714**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.7348	28.8236	13.1736	0.0233		1.4896	1.4896		1.3704	1.3704	0.0000	2,305.9407	2,305.9407	0.7296		2,324.1801
Total	**2.7348**	**28.8236**	**13.1736**	**0.0233**	**12.0442**	**1.4896**	**13.5337**	**6.6205**	**1.3704**	**7.9908**	**0.0000**	**2,305.9407**	**2,305.9407**	**0.7296**		**2,324.1801**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0843	0.0463	0.6499	1.4800e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		147.3555	147.3555	4.6400e-003		147.4714
Total	**0.0843**	**0.0463**	**0.6499**	**1.4800e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**147.3555**	**147.3555**	**4.6400e-003**		**147.4714**

3.3 Excavation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.0897**	**1.3974**	**7.4871**	**3.3205**	**1.2856**	**4.6060**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	5.4422	1.3399	0.0146	0.3928	0.0234	0.4162	0.1054	0.0224	0.1278		1,557.7277	1,557.7277	0.0904		1,559.9870
Vendor	4.7300e-003	0.1198	0.0358	2.5000e-004	6.0200e-003	8.6000e-004	6.8800e-003	1.7300e-003	8.3000e-004	2.5600e-003		26.5251	26.5251	1.5900e-003		26.5649
Worker	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.2333**	**5.6006**	**1.9173**	**0.0160**	**0.5130**	**0.0251**	**0.5380**	**0.1374**	**0.0240**	**0.1613**		**1,707.0491**	**1,707.0491**	**0.0958**		**1,709.4448**

3.3 Excavation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.0897**	**1.3974**	**7.4871**	**3.3205**	**1.2856**	**4.6060**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1583	5.4422	1.3399	0.0146	0.3928	0.0234	0.4162	0.1054	0.0224	0.1278		1,557.7277	1,557.7277	0.0904		1,559.9870
Vendor	4.7300e-003	0.1198	0.0358	2.5000e-004	6.0200e-003	8.6000e-004	6.8800e-003	1.7300e-003	8.3000e-004	2.5600e-003		26.5251	26.5251	1.5900e-003		26.5649
Worker	0.0703	0.0386	0.5416	1.2300e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		122.7963	122.7963	3.8600e-003		122.8929
Total	**0.2333**	**5.6006**	**1.9173**	**0.0160**	**0.5130**	**0.0251**	**0.5380**	**0.1374**	**0.0240**	**0.1613**		**1,707.0491**	**1,707.0491**	**0.0958**		**1,709.4448**

3.3 Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0897**	**1.2734**	**7.3631**	**3.3205**	**1.1716**	**4.4920**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1380	5.0391	1.1503	0.0144	1.0668	0.0184	1.0852	0.2708	0.0176	0.2884		1,541.7001	1,541.7001	0.0874		1,543.8852
Vendor	3.7700e-003	0.1098	0.0295	2.5000e-004	6.0200e-003	5.7000e-004	6.5900e-003	1.7300e-003	5.5000e-004	2.2800e-003		26.3655	26.3655	1.4900e-003		26.4029
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	**0.2064**	**5.1832**	**1.6696**	**0.0158**	**1.1869**	**0.0198**	**1.2067**	**0.3028**	**0.0189**	**0.3217**		**1,687.0926**	**1,687.0926**	**0.0923**		**1,689.4002**

3.3 Excavation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0897**	**1.2734**	**7.3631**	**3.3205**	**1.1716**	**4.4920**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1380	5.0391	1.1503	0.0144	1.0668	0.0184	1.0852	0.2708	0.0176	0.2884		1,541.7001	1,541.7001	0.0874		1,543.8852
Vendor	3.7700e-003	0.1098	0.0295	2.5000e-004	6.0200e-003	5.7000e-004	6.5900e-003	1.7300e-003	5.5000e-004	2.2800e-003		26.3655	26.3655	1.4900e-003		26.4029
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	**0.2064**	**5.1832**	**1.6696**	**0.0158**	**1.1869**	**0.0198**	**1.2067**	**0.3028**	**0.0189**	**0.3217**		**1,687.0926**	**1,687.0926**	**0.0923**		**1,689.4002**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0607	0.0000	6.0607	3.3144	0.0000	3.3144			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0607**	**1.2734**	**7.3341**	**3.3144**	**1.1716**	**4.4859**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	**0.0647**	**0.0343**	**0.4898**	**1.2000e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**119.0269**	**119.0269**	**3.4100e-003**		**119.1122**

3.4 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0607	0.0000	6.0607	3.3144	0.0000	3.3144			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0607**	**1.2734**	**7.3341**	**3.3144**	**1.1716**	**4.4859**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	**0.0647**	**0.0343**	**0.4898**	**1.2000e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**119.0269**	**119.0269**	**3.4100e-003**		**119.1122**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7700e-003	0.1098	0.0295	2.5000e-004	6.0200e-003	5.7000e-004	6.5900e-003	1.7300e-003	5.5000e-004	2.2800e-003		26.3655	26.3655	1.4900e-003		26.4029
Worker	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346
Total	**0.0814**	**0.1510**	**0.6172**	**1.6900e-003**	**0.1430**	**1.5200e-003**	**0.1445**	**0.0381**	**1.4300e-003**	**0.0395**		**169.1979**	**169.1979**	**5.5800e-003**		**169.3375**

3.5 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.7700e-003	0.1098	0.0295	2.5000e-004	6.0200e-003	5.7000e-004	6.5900e-003	1.7300e-003	5.5000e-004	2.2800e-003		26.3655	26.3655	1.4900e-003		26.4029
Worker	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346
Total	**0.0814**	**0.1510**	**0.6172**	**1.6900e-003**	**0.1430**	**1.5200e-003**	**0.1445**	**0.0381**	**1.4300e-003**	**0.0395**		**169.1979**	**169.1979**	**5.5800e-003**		**169.3375**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3870	11.3409	37.2784	0.1100	8.9079	0.0904	8.9983	2.3817	0.0847	2.4664		11,125.8477	11,125.8477	0.5150		11,138.7228
Unmitigated	3.3870	11.3409	37.2784	0.1100	8.9079	0.0904	8.9983	2.3817	0.0847	2.4664		11,125.8477	11,125.8477	0.5150		11,138.7228

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,518.07	287.50	148.10	3,171,102	3,171,102
Total	1,518.07	287.50	148.10	3,171,102	3,171,102

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
NaturalGas Unmitigated	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	21433.9	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Total		**0.2312**	**2.1014**	**1.7652**	**0.0126**		**0.1597**	**0.1597**		**0.1597**	**0.1597**		**2,521.6361**	**2,521.6361**	**0.0483**	**0.0462**	**2,536.6209**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	21.4339	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Total		**0.2312**	**2.1014**	**1.7652**	**0.0126**		**0.1597**	**0.1597**		**0.1597**	**0.1597**		**2,521.6361**	**2,521.6361**	**0.0483**	**0.0462**	**2,536.6209**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Unmitigated	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5532					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Total	**5.2162**	**2.0000e-004**	**0.0223**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0477**	**0.0477**	**1.3000e-004**		**0.0508**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5532					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Total	**5.2162**	**2.0000e-004**	**0.0223**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0477**	**0.0477**	**1.3000e-004**		**0.0508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

McKinley Water Vault Project

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	217.80	1000sqft	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Non-default values based on the project description

Land Use -

Construction Phase - Non-default values based on Project Description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Off-road Equipment - Non-default values based on project description

Off-road Equipment -

Off-road Equipment - Non-default values based on project description

Trips and VMT - Non-default values based on project description. Hauling = 85,000 cu yards total, 18 cu yrds per truck = 4,722 total trips

Grading - Non-default values based on project description

Architectural Coating - Non-default values based on project description

Energy Use -

Construction Off-road Equipment Mitigation - non-default valules based on the PD

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tblConstructionPhase	NumDays	230.00	65.00
tblConstructionPhase	NumDays	8.00	260.00
tblConstructionPhase	NumDays	8.00	110.00
tblConstructionPhase	NumDays	5.00	60.00
tblConstructionPhase	PhaseEndDate	4/24/2020	11/27/2020
tblConstructionPhase	PhaseEndDate	10/25/2019	3/27/2020
tblConstructionPhase	PhaseEndDate	11/22/2019	8/29/2020
tblConstructionPhase	PhaseStartDate	11/23/2019	8/31/2020
tblConstructionPhase	PhaseStartDate	10/26/2019	3/30/2020
tblGrading	AcresOfGrading	130.00	0.00
tblGrading	AcresOfGrading	55.00	4.00
tblGrading	MaterialExported	0.00	85,000.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblTripsAndVMT	HaulingTripNumber	10,625.00	4,722.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	36.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	18.00
tblTripsAndVMT	WorkerTripNumber	91.00	18.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.8142	34.1940	18.2372	0.0453	12.1811	1.4905	13.6716	6.6568	1.3713	8.0281	0.0000	4,604.8357	4,604.8357	1.0291	0.0000	4,630.5630
2020	2.6346	31.7853	17.7372	0.0451	7.2766	1.2938	8.5705	3.6232	1.1911	4.8143	0.0000	4,520.7304	4,520.7304	1.0251	0.0000	4,546.3573
Total	**5.4488**	**65.9792**	**35.9744**	**0.0904**	**19.4577**	**2.7844**	**22.2421**	**10.2800**	**2.5623**	**12.8423**	**0.0000**	**9,125.5661**	**9,125.5661**	**2.0542**	**0.0000**	**9,176.9203**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.8142	34.1940	18.2372	0.0453	12.1811	1.4905	13.6716	6.6568	1.3713	8.0281	0.0000	4,604.8357	4,604.8357	1.0291	0.0000	4,630.5630
2020	2.6346	31.7853	17.7372	0.0451	7.2766	1.2938	8.5705	3.6232	1.1911	4.8143	0.0000	4,520.7304	4,520.7304	1.0251	0.0000	4,546.3573
Total	**5.4488**	**65.9792**	**35.9744**	**0.0904**	**19.4577**	**2.7844**	**22.2421**	**10.2800**	**2.5623**	**12.8423**	**0.0000**	**9,125.5661**	**9,125.5661**	**2.0542**	**0.0000**	**9,176.9203**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Energy	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Mobile	2.5691	12.2188	34.1255	0.0992	8.9079	0.0916	8.9995	2.3817	0.0858	2.4675		10,047.6680	10,047.6680	0.5072		10,060.3474
Total	**8.0164**	**14.3204**	**35.9130**	**0.1118**	**8.9079**	**0.2514**	**9.1592**	**2.3817**	**0.2456**	**2.6273**		**12,569.3518**	**12,569.3518**	**0.5556**	**0.0462**	**12,597.0191**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Energy	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Mobile	2.5691	12.2188	34.1255	0.0992	8.9079	0.0916	8.9995	2.3817	0.0858	2.4675		10,047.6680	10,047.6680	0.5072		10,060.3474
Total	**8.0164**	**14.3204**	**35.9130**	**0.1118**	**8.9079**	**0.2514**	**9.1592**	**2.3817**	**0.2456**	**2.6273**		**12,569.3518**	**12,569.3518**	**0.5556**	**0.0462**	**12,597.0191**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/7/2019	3/29/2019	5	60	
2	Excavation	Grading	3/30/2019	3/27/2020	5	260	
3	Grading	Grading	3/30/2020	8/29/2020	5	110	
4	Building Construction	Building Construction	8/31/2020	11/27/2020	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Excavation	Excavators	1	8.00	158	0.38
Excavation	Graders	1	8.00	187	0.41
Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Excavation	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	6	15.00	1.00	4,722.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	18.00	1.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.7348	28.8236	13.1736	0.0233		1.4896	1.4896		1.3704	1.3704		2,305.9407	2,305.9407	0.7296		2,324.1801
Total	**2.7348**	**28.8236**	**13.1736**	**0.0233**	**12.0442**	**1.4896**	**13.5337**	**6.6205**	**1.3704**	**7.9908**		**2,305.9407**	**2,305.9407**	**0.7296**		**2,324.1801**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0573	0.5591	1.3000e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		129.4200	129.4200	4.1100e-003		129.5227
Total	**0.0776**	**0.0573**	**0.5591**	**1.3000e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**129.4200**	**129.4200**	**4.1100e-003**		**129.5227**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.7348	28.8236	13.1736	0.0233		1.4896	1.4896		1.3704	1.3704	0.0000	2,305.9407	2,305.9407	0.7296		2,324.1801
Total	**2.7348**	**28.8236**	**13.1736**	**0.0233**	**12.0442**	**1.4896**	**13.5337**	**6.6205**	**1.3704**	**7.9908**	**0.0000**	**2,305.9407**	**2,305.9407**	**0.7296**		**2,324.1801**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0573	0.5591	1.3000e-003	0.1369	9.8000e-004	0.1379	0.0363	9.0000e-004	0.0372		129.4200	129.4200	4.1100e-003		129.5227
Total	**0.0776**	**0.0573**	**0.5591**	**1.3000e-003**	**0.1369**	**9.8000e-004**	**0.1379**	**0.0363**	**9.0000e-004**	**0.0372**		**129.4200**	**129.4200**	**4.1100e-003**		**129.5227**

3.3 Excavation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856		2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.0897**	**1.3974**	**7.4871**	**3.3205**	**1.2856**	**4.6060**		**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1640	5.6755	1.4372	0.0143	0.3928	0.0242	0.4170	0.1054	0.0231	0.1285		1,534.3203	1,534.3203	0.0948		1,536.6895
Vendor	4.9700e-003	0.1227	0.0407	2.4000e-004	6.0200e-003	8.9000e-004	6.9100e-003	1.7300e-003	8.5000e-004	2.5800e-003		25.8586	25.8586	1.7300e-003		25.9018
Worker	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.2337**	**5.8460**	**1.9438**	**0.0157**	**0.5130**	**0.0259**	**0.5388**	**0.1374**	**0.0247**	**0.1621**		**1,668.0289**	**1,668.0289**	**0.0999**		**1,670.5268**

3.3 Excavation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.5805	28.3480	16.2934	0.0297		1.3974	1.3974		1.2856	1.2856	0.0000	2,936.8068	2,936.8068	0.9292		2,960.0361
Total	**2.5805**	**28.3480**	**16.2934**	**0.0297**	**6.0897**	**1.3974**	**7.4871**	**3.3205**	**1.2856**	**4.6060**	**0.0000**	**2,936.8068**	**2,936.8068**	**0.9292**		**2,960.0361**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1640	5.6755	1.4372	0.0143	0.3928	0.0242	0.4170	0.1054	0.0231	0.1285		1,534.3203	1,534.3203	0.0948		1,536.6895
Vendor	4.9700e-003	0.1227	0.0407	2.4000e-004	6.0200e-003	8.9000e-004	6.9100e-003	1.7300e-003	8.5000e-004	2.5800e-003		25.8586	25.8586	1.7300e-003		25.9018
Worker	0.0647	0.0477	0.4660	1.0800e-003	0.1141	8.1000e-004	0.1149	0.0303	7.5000e-004	0.0310		107.8500	107.8500	3.4200e-003		107.9356
Total	**0.2337**	**5.8460**	**1.9438**	**0.0157**	**0.5130**	**0.0259**	**0.5388**	**0.1374**	**0.0247**	**0.1621**		**1,668.0289**	**1,668.0289**	**0.0999**		**1,670.5268**

3.3 Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0897**	**1.2734**	**7.3631**	**3.3205**	**1.1716**	**4.4920**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1424	5.2449	1.2309	0.0142	1.0668	0.0190	1.0858	0.2708	0.0182	0.2890		1,518.0207	1,518.0207	0.0914		1,520.3066
Vendor	3.9700e-003	0.1121	0.0340	2.4000e-004	6.0200e-003	5.9000e-004	6.6100e-003	1.7300e-003	5.7000e-004	2.3000e-003		25.6912	25.6912	1.6200e-003		25.7317
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	**0.2058**	**5.3994**	**1.6842**	**0.0155**	**1.1869**	**0.0204**	**1.2073**	**0.3028**	**0.0195**	**0.3223**		**1,648.2452**	**1,648.2452**	**0.0961**		**1,650.6467**

3.3 Excavation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0897	0.0000	6.0897	3.3205	0.0000	3.3205			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0897**	**1.2734**	**7.3631**	**3.3205**	**1.1716**	**4.4920**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1424	5.2449	1.2309	0.0142	1.0668	0.0190	1.0858	0.2708	0.0182	0.2890		1,518.0207	1,518.0207	0.0914		1,520.3066
Vendor	3.9700e-003	0.1121	0.0340	2.4000e-004	6.0200e-003	5.9000e-004	6.6100e-003	1.7300e-003	5.7000e-004	2.3000e-003		25.6912	25.6912	1.6200e-003		25.7317
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	**0.2058**	**5.3994**	**1.6842**	**0.0155**	**1.1869**	**0.0204**	**1.2073**	**0.3028**	**0.0195**	**0.3223**		**1,648.2452**	**1,648.2452**	**0.0961**		**1,650.6467**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0607	0.0000	6.0607	3.3144	0.0000	3.3144			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0607**	**1.2734**	**7.3341**	**3.3144**	**1.1716**	**4.4859**		**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	**0.0595**	**0.0424**	**0.4194**	**1.0500e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**104.5333**	**104.5333**	**3.0100e-003**		**104.6084**

3.4 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0607	0.0000	6.0607	3.3144	0.0000	3.3144			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.4851	2,872.4851	0.9290		2,895.7106
Total	**2.4288**	**26.3859**	**16.0530**	**0.0297**	**6.0607**	**1.2734**	**7.3341**	**3.3144**	**1.1716**	**4.4859**	**0.0000**	**2,872.4851**	**2,872.4851**	**0.9290**		**2,895.7106**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	**0.0595**	**0.0424**	**0.4194**	**1.0500e-003**	**0.1141**	**7.9000e-004**	**0.1149**	**0.0303**	**7.3000e-004**	**0.0310**		**104.5333**	**104.5333**	**3.0100e-003**		**104.6084**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9700e-003	0.1121	0.0340	2.4000e-004	6.0200e-003	5.9000e-004	6.6100e-003	1.7300e-003	5.7000e-004	2.3000e-003		25.6912	25.6912	1.6200e-003		25.7317
Worker	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301
Total	**0.0754**	**0.1629**	**0.5372**	**1.5000e-003**	**0.1430**	**1.5400e-003**	**0.1445**	**0.0381**	**1.4500e-003**	**0.0395**		**151.1312**	**151.1312**	**5.2300e-003**		**151.2618**

3.5 Building Construction - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**	**0.0000**	**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9700e-003	0.1121	0.0340	2.4000e-004	6.0200e-003	5.9000e-004	6.6100e-003	1.7300e-003	5.7000e-004	2.3000e-003		25.6912	25.6912	1.6200e-003		25.7317
Worker	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301
Total	**0.0754**	**0.1629**	**0.5372**	**1.5000e-003**	**0.1430**	**1.5400e-003**	**0.1445**	**0.0381**	**1.4500e-003**	**0.0395**		**151.1312**	**151.1312**	**5.2300e-003**		**151.2618**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.5691	12.2188	34.1255	0.0992	8.9079	0.0916	8.9995	2.3817	0.0858	2.4675		10,047.6680	10,047.6680	0.5072		10,060.3474
Unmitigated	2.5691	12.2188	34.1255	0.0992	8.9079	0.0916	8.9995	2.3817	0.0858	2.4675		10,047.6680	10,047.6680	0.5072		10,060.3474

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	1,518.07	287.50	148.10	3,171,102	3,171,102
Total	1,518.07	287.50	148.10	3,171,102	3,171,102

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	10.00	5.00	6.50	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.555851	0.039752	0.205040	0.120748	0.020349	0.005402	0.018507	0.022668	0.002052	0.002157	0.005939	0.000618	0.000915

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
NaturalGas Unmitigated	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	21433.9	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Total		**0.2312**	**2.1014**	**1.7652**	**0.0126**		**0.1597**	**0.1597**		**0.1597**	**0.1597**		**2,521.6361**	**2,521.6361**	**0.0483**	**0.0462**	**2,536.6209**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	21.4339	0.2312	2.1014	1.7652	0.0126		0.1597	0.1597		0.1597	0.1597		2,521.6361	2,521.6361	0.0483	0.0462	2,536.6209
Total		**0.2312**	**2.1014**	**1.7652**	**0.0126**		**0.1597**	**0.1597**		**0.1597**	**0.1597**		**2,521.6361**	**2,521.6361**	**0.0483**	**0.0462**	**2,536.6209**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Unmitigated	5.2162	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5532					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Total	**5.2162**	**2.0000e-004**	**0.0223**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0477**	**0.0477**	**1.3000e-004**		**0.0508**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5532					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.6609					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0900e-003	2.0000e-004	0.0223	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005		0.0477	0.0477	1.3000e-004		0.0508
Total	**5.2162**	**2.0000e-004**	**0.0223**	**0.0000**		**8.0000e-005**	**8.0000e-005**		**8.0000e-005**	**8.0000e-005**		**0.0477**	**0.0477**	**1.3000e-004**		**0.0508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

Appendix C ARBORIST REPORT

Arborist Report

McKinley Water Vault Proposed Project

Prepared for:
City of Sacramento
915 I Street
Sacramento, CA 95814

Prepared by:
Stantec Consulting Services Inc.
101 Providence Mine Rd, # 202
Nevada City, CA 95959

October 10, 2017

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Abbreviations

APN	Assessor's Parcel Number
ASA	Arborist Study Area
BFFP	State Board of Forestry and Fire Protection
Board	State Board of Forestry and Fire Protection
CC	(Sacramento) City Code
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CIP	Capital Improvement Project
City	City of Sacramento
City Tree Permit	City of Sacramento Tree Permit
CSSIP	Combined Sewer System Improvement Plan
CWA	Clean Water Act
BMP	Best Management Practice
DSH	Diameter at Standard Height (Note: For the purpose of this Study the acronym DSH has been adopted in lieu of Diameter at Breast Height [DBH] to be consistent with County and City standards and references).
GPS	Global Positioning System
NPDES	National Pollutant Discharge Elimination System
OWCA	Oak Woodland Conservation Act
OWCP	Oak Woodlands Conservation Fund
PFL	Professional Forester's Law
PRC	Public Resources Code
Project	Proposed McKinley Water Vault Project

Report	Arborist Report
ROW	right-of-way
Stantec	Stantec Consulting Services Inc.
State	State of California
WCB	Wildlife Conservation Fund

1.0 INTRODUCTION

The purpose of this Arborist Report (Report) is to provide geographical location, tree health assessments, and a general summary of the existing trees that occur within and near the proposed McKinley Water Vault Project (Project). This Report also addresses the State of California (State) and City of Sacramento (City) regulations regarding the protection, avoidance, permitting, and mitigation associated with tree species identified with the proposed Project area.

The proposed Project is located within McKinley Park at 601 Alhambra Boulevard, (East) Sacramento, California (Figure 1.0 Project Location Map). The proposed Project area consists of one parcel (i.e., Assessor's Parcel Number [APN] 003-0010-002). The proposed Project setting is typical of a park with sports fields, grass areas, recreation facilities, trees, picnic areas, a pool, a playground, and a rose garden. Surrounding uses include on street parking, residential, and commercial land uses.

The City is proposing the Project under the baseball field on the eastern side of McKinley Park adjacent to 33rd street, to reduce flooding within the area of East Sacramento. During construction, the Project would occupy a three- to four-acre footprint. Following completion of construction, the area would be returned to its original condition. The permanent above-ground control facilities would be located outside the footprint of the ball field and would be approximately 20-feet by 35-feet adjacent to the underground water vault.

For the purpose of the arborist tree field assessment, the proposed Project work area (6.8 acres) was surveyed. In addition, potential staging, access, and other work areas were also surveyed. These areas specifically comprise the 1) potential H Street site access area (1.8 acres), 2) potential McKinley Boulevard site access area (2.0 acres), 3) potential 33rd Street site access area (0.6 acre), and 4) potential trench work area (1.0 acre). Thus, the total area surveyed was 12.2 acres.

Document Path: \\US1362-F01\workgroup\184(0)active\184030594\gis\mxd\arborist study\fig 1 mckin arb study location map.mxd

Project: 184030594; Sources: Stantec 2017. Created By: M. Kennedy. 6/21/2017. Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

Stantec

0 0.05 0.1 Miles

1:5,250

Figure 1
Project Location

City of Sacramento
McKinley Water Vault Project

2.0 REGULATORY OVERVIEW

The Regulatory Overview section describes applicable laws and regulations administered by the State and local governing bodies that apply to tree resources specific to the proposed Project area.

2.1 CALIFORNIA TREE PROTECTION REGULATIONS

California laws that regulate and/or protect oaks and other tree species include: the Professional Forester's Law (PFL); the California Environmental Quality Act (CEQA); and the State Board of Forestry and Fire Protection (BFFP). PFL addresses oak habitat evaluations. CEQA addresses that "a county (or 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.

2.2 CITY OF SACRAMENTO TREE ORDINANCE, SACRAMENTO CITY CODE 12.56

2.2.1 General Requirements

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 City Council on August 4, 2016. The new tree ordinance amends section 2.62.030 and 8.04.100, and deletes chapter 12.60 and 12.64 of the Sacramento CC, related to trees. CC Section 12.56.050 relates specifically to tree permits and requires that a tree permit be obtained before regulated work is performed on city trees or private protected (Appendix C Tree Permit Application).

2.2.2 Definitions CC 12.56.020

2.2.2.1 City Trees

City tree means any tree the trunk of which, when measured four and one-half feet above ground, is partially or completely located in a city park, on real property the city owns in fee, or on a public right-of-way, including any street, road, sidewalk, park strip, mow strip, or alley.

2.2.2.2 Director

For City trees located within City parks, the Director of the City Parks Department handles approvals for tree removal. For all other City trees located on City property or within the ROW, the City Director of Utilities handles approvals. If a Capital Improvement Project (CIP) cannot avoid tree removal, then a justification letter to the Director of Utilities is compiled. The Director of Utilities then makes a recommendation to the City Council for approval prior to work or removal. The Director will post approvals and specifications for work periods upon consent.

2.2.2.3 Private Protected Tree

"Private protected tree" means:

A. A tree that is designated by city council resolution to have special historical value, special environmental value, or significant community benefit, and is located on private property;
B. Any native Valley Oak (*Quercus lobata*), Blue Oak (*Quercus douglasii*), Interior Live Oak (*Quercus wislizenii*), Coast Live Oak (*Quercus agrifolia*), California Buckeye (*Aesculus californica),* or California Sycamore (*Platanus racemosa*), that has a DSH of twelve (12) inches or more, and is located on private property;
C. A tree that has a DSH of twenty-four (24) inches or more located on private property that:
    1. Is an undeveloped lot; or
    2. Does not include any single unit or duplex dwellings; or
D. A tree that has a DSH of thirty-two (32) inches or more located on private property that includes any single unit or duplex dwellings.

2.2.2.4 Regulated Work

Regulated work means planting a City tree, or any act that could adversely impact the health of a City tree or private protected tree such as:

- Removing a City tree or private protected tree;
- Pruning the branches or roots from a City tree or private protected tree;
- Affixing any signs, lights, or hardware to a City tree;
- Grading, clearing, excavating, adding fill soil, trenching, boring, compacting, or paving within the tree protection zone of a City tree or private protected tree;
- Placing or storing construction equipment or construction material within the tree protection zone of a City tree or private protected tree;
- Application of any harmful substance within the tree protection zone of a City tree or private protected tree; or

- Topping a City tree or private protected tree. Regulated work does not include routine maintenance.

2.2.2.5 Minor Pruning

"Minor pruning" means the removal of dead branches; or cutting of roots or branches less than two inches in diameter, measured at the location of the cut, from a private protected tree in a cumulative amount of no more than ten (10) percent of a combination of the root system and tree crown within a twelve (12) month period.

2.2.2.6 Tree Protection Plan

"Tree protection plan" means the plan submitted by the applicant and approved by the city to list the site conditions and treatments to guard city trees and private protected trees during the construction and landscaping processes.

2.2.2.7 Tree Protection Zone

"Tree protection zone" means the area around a tree within the outermost circumference of the canopy or as set forth in a tree protection plan.

2.2.3 Removal of City Trees in Public Projects CC Section 12.56.040

A. Whenever feasible, the city shall modify the design of public projects to avoid the removal or damage to city trees.

B. If the city proposes to remove city trees that have a DSH of four inches or more as part of a public project that otherwise requires city council approval, the city project manager shall provide written justification to the director of the need to remove city trees for the public project. The director shall review the written justification and if the director agrees with the written justification the director shall make a recommendation to the city council to approve the request to remove the city trees. The request for approval from city council may take place at any stage of the public project but the city shall obtain council approval prior to removing the city trees. City trees proposed to be removed as part of a public project that either does not require city council approval or has a DSH less than four inches shall be removed as provided in CC section 12.56.030(C).

C. The director shall provide written notice of the proposal to remove city trees as part of a public project by posting a notice of the time, date, and location of the city council meeting during which the city council is to decide whether or not to remove city trees in a conspicuous place on or in proximity to the trees at least fifteen (15) days prior to the city council meeting. (Ord. 2016-0026 § 4)

2.2.4 City Trees Permit Application CC Section 12.56.050(C)

1. The director shall issue tree permits for regulated work on city trees if the applicant establishes, to the director's satisfaction, that there is a need for the proposed work; any detriment to the city tree population entailed by the proposed work is justified in the individual case and, in the case of removal, the director approves the tree replacement plan. In making the determinations, the director shall consider any relevant factors, including, but not limited to:
   a. The health and structural condition of the tree;
   b. Whether the proposed regulated work conforms to current best management practices for the tree care industry;
   c. The above and below ground space available for root and crown growth;
   d. The desirability of the species;
   e. Whether the proposed work would improve growing conditions of neighboring trees;
   f. The approximate age of the tree compared with the average life span for the species;
   g. Whether or not the tree is acting as a host for an organism that is pathogenic to other trees;
   h. The need for the proposed work in order to develop property; and
   i. Whether there are reasonable means of accomplishing the applicant's goal with less impact to the tree.
2. The director may condition any permit issued for regulated work on city trees as the director determines to be necessary.

2.2.5 Tree Replacement Plans CC 12.56.060

Any other tree replacement plan must provide for the replacement of trees at a ratio of one-inch DSH of tree replaced for each inch DSH of tree removed (1:1 ratio) (CC section 12.56.060(A)(2)). Trees replacement plans must include on-site or off-site replacement and/or payment of in-lieu fee) (CC section 12.56.060(B)).

3.0 METHODS

A Stantec qualified Arborist and Terrestrial Biologist conducted a protocol-level field survey on April 27, 2017. A follow-up survey was conducted on August 22, 2017 to verify and assess the addition of additional project features. The field survey was conducted on ground-level and was based on the visual inspection of trees occurring within the proposed Project area (including features such as staging and access) constituting the 12.2 acres studied for the Report (Arborist Study Area (ASA)).

Each tree location within the ASA was mapped with a sub-meter Trimble Geo XH Global Positioning System (GPS) for its geographic location and canopy extent to establish the baseline for the tree protection zone (CC section 12.56) to inform engineering proposed Project design efforts. Trees were assessed using standard arborist tree health metrics including species, DSH, canopy cover, bark health, new and surface growth, leaf color, disease (including parasites and insect infestations), and other notable characteristics. Specific tree health assessment parameters used to survey trees within the ASA are further detailed in Table 1 below. The tree health assessments accounted for seasonality and past drought stress and increased seasonal precipitation during the period of study.

Table 1 Field Survey Tree Health Assessment Parameters

Assessment	Assessment Description	Assessment Score
Canopy Cover	Canopy cover die-back by percentage based on density and presence of foliage at the crown on the tree	**1**: Sparse canopy to full die-back (0-25%) **2**: Partial canopy (25-50%) **3**: Medium canopy (50-75%) **4**: Full canopy (75-100%)
Bark Health	Bark health is assessed through the absence/ sluffing of bark on the bole and limbs of the tree	**1**: Poor Health: decaying or dead; 75-100% bark absence; bark absent from bole and limbs of tree; abundant root rot; extensive insect damage; overall discoloration and bark shape irregularities; abundant surface growth **2**: Fair Health: 50-75% bark absence; some root rot and insect damage; discoloration and bark shape irregularities; bark sluffing. **3**: Good Health: 25-50% bark absence; some root or heart rot present; bark only missing from tree limbs. **4**: Excellent Health: 0-25% bark absence. Present bark generally intact and of high vigor.
New Growth Presence	"New growth" is any new vascular growth including leaf buds, basal sprouts, epicormic stems, and saplings.	**1**: Present **0**: Not present

Assessment	Assessment Description	Assessment Score
Leaf Color	Leaf color is assessed based on abnormal colorations that are not typical for the species or season, uniform throughout all present foliage, etc.	**1**: Normal: Color has no abnormalities present **0**: Abnormal: Color has abnormalities present (e.g., spotting, insect tracks, necrotic tips, etc.)
Surface Growth Presence	Surface growth on trunk and stems includes lichen, moss, and all other normal terrestrial algal plants (i.e., non-vascular plants, bryophytes).	**1**: Not Present **0**: Present
Disease	Disease includes fungal/mold presence and other pathogens, tubers, cankers, structural decay (e.g., basal decay, irregular growth pattern of tree), root and heart rot, etc.	**1**: Not Present **0**: Present
Parasites	Parasites can include, but are not limited to the presence of mistletoe, red pustules, etc.	**1**: Not Present **0**: Present
Insect Infestation	Signs of insects include burrowing/ bore holes; frass, larvae or larva galleries, or insect presence; leaf notching; epicormics stems, galls, etc.	**1**: Not Present **0**: Present

Following the field survey, data results were compiled and further analyzed. Each tree was catalogued, assigned an overall health score, and results were visually analyzed and represented using Geographic Information Systems (GIS). The overall tree health score was calculated by the adding together the score of each individual parameter for a particular tree. The overall tree health was then classified based on the overall score based on the classification descriptions defined in Table 2.

Table 2 Overall Tree Health Score Classifications

Overall Score	Score Type	Score Description
1 to 4	poor health / dead	Absent to little canopy over (< 25%), no new growth, bark damaged or absent, surface growth, foliage present is discolored and/or damaged
5 to 7	fair health	Sparse to partial canopy cover, minimal to no new growth present specifically in the canopy, bark sluffing off or damaged yet intact in some places, abnormal surface growths, potential disease presence, some parasite and/or insect damage and/or infestation
8 to 11	good health	Intact to medium canopy cover, new growth present, minimal bark and leaf discoloration, some growth present, no disease, normal surface growth, minimal insect infestations/damage
12 to 14	excellent health	Intact and full canopy, healthy new growth present, no surface growth, excellent bark and leaf health, no disease present

4.0 RESULTS

The arborist field survey mapped and assessed 129 total trees within the ASA based on the metrics outlined in the Methods (Section 3.0) above. The palette of the assessed trees included 33 unique species as illustrated in Table 3 below.

Table 3 Observed Tree Species

Species Name	Native Status	Number of Species Assessed
American sycamore (*Planatus occidentalis*)	native	4
Austrian pine (*Pinus nigra*)	non-native	1
Australian pine (*Casuarina equisetifolia*)	non-native	1
Black cottonwood (*Populus trichocarpa*)	native	4
Black locust (*Robinia pseudoacacia*)	invasive non-native	1
Black oak (*Quercus kelloggii*)	native	1
Bradford pear (*Pyrus calleryanana 'Bradford'*)	non-native	1
California coast redwood (*Sequoia sempervirens*)	native	20
Camphor (*Cinnamomum camphora*)	non-native	7
Chestnut oak (*Quercus prinus*)	non-native	1
Chinese elm (*Ulmus parvifolia*)	non-native	4
Chinese pistache (*Pistacia chinensis*)	invasive non-native	7
Coast live oak (*Quercus agrifolia*)	native	3
Cork oak (*Quercus suber*)	non-native	3
Crape myrtle (*Lagerstroemia indica*)	non-native	4
Deodar cedar (*Cedrus deodara*)	non-native	1
Elm (*Ulmus species*)	non-native	9
English oak (*Quercus robur*)	non-native	3
Fruitless mulberry (*Morus alba*)	non-native	4
Ginkgo (*Ginkgo biloba*)	non-native	2
Gray pine (*Pinus sabiana*)	native	1
Liquidambar (*Liquidambar styraciflua*)	non-native	1
Little leaf london (*Tilia cordata*)	non-native	1
London planetree (*Platanus x acerifolia*)	non-native	5
London planetree; American sycamore (*Platanus x acerifolia; Planatus occidentalis*)	native	14
Mexican fan palm (*Washingtonia robusta*)	invasive non-native	1

Mourning cypress (*Cupressus funebris*)	invasive non-native	1
Norway spruce (*Picea abies*)	non-native	1
Pear (Pyrus species)	non-native	1
Purple leaf plum (*Prunus cerasifera*)	non-native	1
Red oak (*Quercus rubra*)	non-native	1
Sawleaf zelkova (*Zelkova serrata*)	non-native	8
Scarlet oak (*Quercus coccinea*)	non-native	3
Southern live oak (*Quercus virginiana)*	non-native	2
Tulip tree (*Liriodendron tulipfera*)	non-native	1
Valley oak (*Quercus lobata*)	native	6
	Total Trees Within ASA	**129**

Of the 129 trees assessed, the overall health score was good, averaging a health score of 11 out of 14 possible points. Of the 129 trees, 56 were classified with a score at or above 12 indicating excellent health and the remaining 73 were classified at or above a heath assessment score of 8 indicating they are in good health. Table 4 below summarizes the assessed metrics for inventoried trees.

Table 4 Tree Inventory Study Results

Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
1	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	120.24	10.26	4	4	1	1	1	1	1	1	**14**
2	QUERUB	red oak	*Quercus rubra*	36.64	2.72	4	4	0	1	1	1	1	1	**13**
3	ULMPAR	Chinese elm	*Ulmus parvifolia*	24.36	2.03	3	4	0	1	1	1	1	1	**12**
4	QUESUB	cork oak	*Quercus suber*	29.52	2.46	4	3	0	1	1	1	1	1	**12**
5	PLAOCC	American sycamore	*Platanus occidentalis*	111.36	9.28	4	4	1	1	0	1	1	1	**13**
6	QUEPRI	chestnut oak	*Quercus prinus*	9.96	0.83	3	3	0	1	1	1	1	0	**10**
7	ZELSER	sawleaf zelkova	*Zelkova serrata*	90.00	7.50	3	3	1	1	0	1	1	0	**10**
8	CINCAM	camphor	*Cinnamomum camphora*	111.60	9.30	4	4	1	0	1	1	1	0	**12**
9	ULM SP.	elm	*Ulmus species*	89.28	7.44	3	3	1	1	0	1	1	0	**8**
10	PISCHI	Chinese pistache	*Pistacia chinensis*	69.72	5.81	3	4	1	1	0	1	1	0	**11**
11	PISCHI	Chinese pistache	*Pistacia chinensis*	87.00	7.25	3	3	1	1	0	1	1	0	**10**
12	SEQSEM	California coast redwood	*Sequoia sempervirens*	101.16	8.43	4	4	1	0	1	1	1	0	**12**
13	SEQSEM	California coast redwood	*Sequoia sempervirens*	145.80	12.15	4	3	1	0	1	1	1	0	**11**
14	PLAOCC	American sycamore	*Platanus occidentalis*	26.16	2.18	4	3	1	1	0	1	1	1	**12**
15	QUESUB	cork oak	*Quercus suber*	32.28	2.69	4	4	1	1	1	1	1	1	**14**
16	WASROB	Mexican fan palm	*Washingtonia robusta*	104.28	8.69	2	2	0	1	1	1	1	1	**9**
17	SEQSEM	California coast redwood	*Sequoia sempervirens*	34.80	2.90	3	3	1	1	0	1	1	0	**10**
18	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	53.28	4.44	3	4	1	0	1	1	1	0	**11**
19	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	61.44	5.12	3	4	1	0	0	1	1	0	**10**

ARBORIST REPORT

RESULTS
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Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
20	CINCAM	camphor	*Cinnamomum camphora*	120.24	10.02	4	4	1	1	1	1	1	1	**14**
21	CASEQU	Australian pine	*Casuarina equisetifolia*	109.68	9.14	3	3	0	0	0	1	1	0	**8**
22	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	85.32	7.11	4	4	1	0	0	1	1	0	**11**
23	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	82.08	6.84	4	3	0	0	1	1	1	0	**10**
24	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	82.2	6.85	4	3	1	0	0	1	1	0	**10**
25	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	75.00	6.25	4	3	1	0	0	1	1	0	**10**
26	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	65.16	5.43	3	3	1	0	1	1	1	0	**10**
27	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	93.72	7.81	4	3	1	0	1	1	1	0	**11**
28	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	75.48	6.29	3	3	0	0	1	1	1	0	**9**
29	QUEROB	English oak	*Quercus robur*	39.84	3.32	4	3	1	1	0	1	1	1	**12**
30	QUECOC	scarlet oak	*Quercus coccinea*	47.04	3.92	4	4	1	1	1	1	1	1	**14**
31	PISCHI	Chinese pistache	*Pistacia chinensis*	130.20	10.85	2	2	1	1	0	1	1	0	**8**
32	ROBPSE	black locust	*Robinia pseudoacacia*	128.88	10.74	3	3	1	1	0	1	1	0	**10**
33	CINCAM	camphor	*Cinnamomum camphora*	93.96	7.83	4	3	1	0	0	1	1	1	**11**
34	QUAKEL	black oak	*Quercus kelloggii*	105.48	8.79	4	4	1	1	0	1	1	0	**12**
35	PISCHI	Chinese pistache	*Pistacia chinensis*	90.00	7.50	4	4	1	1	1	1	1	0	**13**
36	QUEROB	English oak	*Quercus robur*	85.20	7.10	4	2	1	1	0	1	1	0	**10**
37	ULM SP.	elm	*Ulmus* species	128.52	10.71	4	3	1	1	0	1	1	0	**11**

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RESULTS
February 7, 2018

Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
38	CEDDEO	Deodar cedar	*Cedrus deodara*	85.44	7.12	3	4	1	1	1		1	0	**12**
39	ULM SP.	elm	*Ulmus species*	9.68	7.89	4	4	1	1	0	1	1	1	**13**
40	PICABI	Norway spruce	*Picea abies*	21.36	1.78	4	2	1	1	0	1	1	0	**10**
41	MORALB	fruitless mulberry	*Morus alba*	105.36	8.78	3	3	1	1	0	1	1	0	**10**
42	MORALB	fruitless mulberry	*Morus alba*	86.04	7.17	3	3	1	1	0	1	1	0	**10**
43	GINBIL	ginkgo	*Ginkgo biloba*	42.12	3.51	4	4	1	1	0	1	1	1	**13**
44	LIRTUL	tulip tree	*Liriodendron tulipfera*	74.52	6.21	4	4	1	1	1	1	1	0	**13**
45	ULM SP.	elm	*Ulmus species*	18.24	1.52	4	3	1	1	0	1	1	0	**11**
46	PINNIG	Austrian pine	*Pinus nigra*	118.80	9.90	4	4	1	1	0	1	1	0	**12**
49	QUEAGR	coast live oak	*Quercus agrifolia*	80.52	6.71	3	3	1	1	1	0	1	0	**10**
50	QUEAGR	coast live oak	*Quercus agrifolia*	200.40	16.70	4	3	1	0	0	0	1	0	**9**
51	QUEAGR	coast live oak	*Quercus agrifolia*	109.92	9.16	4	3	1	0	0	0	1	0	**9**
52	QUEVIR	southern live oak	*Quercus virginiana*	24.36	12.03	4	3	1	0	0	1	1	0	**10**
53	QUEVIR	southern live oak	*Quercus virginiana*	73.08	6.09	4	4	1	0	1	1	1	0	**12**
54	POPTRI	black cottonwood	*Populus trichocarpa*	12.72	1.06	3	3	1	1	0	0	1	0	**9**
55	PISCHI	Chinese pistache	*Pistacia chinensis*	7.56	0.63	4	3	1	1	0	1	1	1	**12**
56	PISCHI	Chinese pistache	*Pistacia chinensis*	10.80	0.90	4	3	1	1	0	1	1	1	**12**
57	PYR SP.	pear	*Pyrus* species	6.00	0.50	4	3	1	1	0	1	1	0	**11**
58	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	69.72	5.81	3	4	1	0	0	1	1	0	**10**
59	SEQSEM	California coast redwood	*Sequoia sempervirens*	118.80	9.90	4	4	1	0	0	1	1	0	**11**
60	PLAACE	London planetree; American sycamore	*Platanus x acerifolia; Planatus occidentalis*	58.44	4.87	3	3	1	0	0	1	1	0	**9**

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RESULTS
February 7, 2018

Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
61	SEQSEM	California coast redwood	*Sequoia sempervirens*	11.28	0.94	4	4	1	0	0	1	1	1	**12**
62	SEQSEM	California coast redwood	*Sequoia sempervirens*	62.04	5.17	4	3	1	1	0	1	1	0	**11**
63	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	59.40	4.95	3	4	1	0	0	1	1	0	**10**
64	SEQSEM	California coast redwood	*Sequoia sempervirens*	53.64	4.47	4	4	1	1	0	1	1	0	**12**
65	QUESUB	cork oak	*Quercus subra*	24.48	2.04	4	4	1	1	1	1	1	0	**13**
66	CINCAM	camphor	*Cinnamomum camphora*	93.96	7.83	4	4	1	0	0	1	1	0	**11**
67	CINCAM	camphor	*Cinnamomum camphora*	93.00	7.75	4	4	1	0	0	1	1	0	**11**
68	ULM SP.	elm	*Ulmus species*	106.20	8.85	4	4	1	1	0	1	1	0	**12**
69	PISCHI	Chinese pistache	*Pistacia chinensis*	90.60	7.55	4	4	1	1	1	1	1	0	**13**
70	PLAACE	London planetree; American sycamore	*Platanus* x *acerifolia; Planatus occidentalis*	58.44	4.87	3	3	1	0	0	1	1	0	**9**
71	ZELSER	sawleaf zelkova	*Zelkova serrata*	7.0	0.58	4	3	0	1	0	1	1	0	**10**
72	CINCAM	camphor	*Cinnamomum camphora*	5.0	0.42	4	3	1	1	1	1	1	1	**13**
73	LAGIND	crape myrtle	*Lagerstroemia indica*	6.0	0.50	4	2	0	1	1	1	1	1	**11**
74	LAGIND	crape myrtle	*Lagerstroemia indica*	5.3	0.44	3	2	0	1	1	1	1	1	**10**
75	ULM SP.	elm	*Ulmus* species	8.2	0.69	4	2	0	1	0	1	1	1	**10**
76	ULM SP.	elm	*Ulmus* species	8.0	0.66	4	2	1	1	0	1	1	1	**11**
77	LAGIND	crape myrtle	*Lagerstroemia indica*	9.0	0.75	4	3	0	1	1	1	1	1	**12**
78	QUELOB	valley oak	*Quercus lobata*	19.5	1.63	4	4	0	1	1	1	1	1	**13**
79	QUELOB	valley oak	*Quercus lobata*	11.5	0.96	4	4	0	1	1	1	1	1	**13**
80	PLAOCC	American sycamore	*Plantanus occidentalis*	42.0	3.50	4	3	0	1	0	1	1	0	**10**
81	PLAOCC	American sycamore	*Plantanus occidentalis*	32.0	2.67	4	4	0	1	1	1	1	0	**12**

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RESULTS
February 7, 2018

Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
82	PINSAB	gray pine	*Pinus sabiana*	46.0	3.83	4	4	0	0	0	1	1	1	**11**
83	PLAACE	London planetree	*Plantanus x acerifolia*	10.0	0.83	3	2	0	0	1	1	1	1	**9**
84	ZELSER	sawleaf zelkova	*Zelkova serrata*	29.5	2.46	4	4	0	0	1	1	1	1	**12**
85	ZELSER	sawleaf zelkova	*Zelkova serrata*	19.0	1.58	3	4	1	1	0	1	1	1	**12**
86	ZELSER	sawleaf zelkova	*Zelkova serrata*	43.0	3.58	2	3	0	0	1	1	1	1	**9**
87	PLAACE	London planetree	*Plantanus x acerifolia*	19.5	1.63	4	3	0	0	1	1	1	1	**11**
88	PLAACE	London planetree	*Plantanus x acerifolia*	17.5	1.46	4	4	0	0	0	1	1	1	**11**
89	ZELSER	sawleaf zelkova	*Zelkova serrata*	34.0	2.83	4	3	0	1	0	0	1	1	**10**
90	ZELSER	sawleaf zelkova	*Zelkova serrata*	29.0	2.42	4	3	0	1	0	1	1	1	**11**
91	PLAACE	London planetree	*Plantanus x acerifolia*	18.5	1.54	3	3	1	0	1	1	1	1	**11**
92	CINCAM	camphor	*Cinnamomum camphora*	38.5	3.21	4	3	0	1	0	1	1	1	**11**
93	POPTRI	black cottonwood	*Populus trichocarpa*	20.5	1.71	4	4	1	0	1	1	1	1	**13**
94	POPTRI	black cottonwood	*Populus trichocarpa*	19.0	1.58	4	3	1	1	0	1	1	1	**12**
95	ULMPAR	Chinese elm	*Ulmus parvifolia*	27.0	2.25	4	2	0	0	0	1	1	1	**9**
96	ULMPAR	Chinese elm	*Ulmus parvifolia*	29.5	2.46	4	2	1	1	0	1	1	1	**11**
97	ZELSER	sawleaf zelkova	*Zelkova serrata*	31.5	2.63	4	3	0	1	0	1	1	1	**11**
98	LIQSTY	liquidambar	*Liquidambar styraciflua*	30.0	2.50	4	4	0	1	0	1	1	1	**12**
99	ULMPAR	Chinese elm	*Ulmus parvifolia*	39.0	3.25	4	3	0	1	0	1	1	1	**11**
100	PLAACE	London planetree	*Plantanus x acerifolia*	20.0	1.67	3	4	1	0	0	1	1	1	**11**
101	SEQSEM	California coast redwood	*Sequoia sempervirens*	10.0	0.83	4	4	1	0	1	1	1	1	**13**
102	POPTRI	black cottonwood	*Populus trichocarpa*	31.0	2.58	4	3	0	1	1	1	1	1	**12**
103	SEQSEM	California coast redwood	*Sequoia sempervirens*	53.5	4.46	4	4	1	1	1	1	1	1	**14**

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Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
104	SEQSEM	California coast redwood	*Sequoia sempervirens*	32.0	2.67	4	4	1	0	0	1	1	1	**12**
105	SEQSEM	California coast redwood	*Sequoia sempervirens*	59.0	4.92	4	4	1	0	1	1	1	1	**13**
106	SEQSEM	California coast redwood	*Sequoia sempervirens*	45.0	3.75	4	3	1	0	0	1	1	1	**11**
107	SEQSEM	California coast redwood	*Sequoia sempervirens*	17.0	1.42	4	3	1	0	0	1	1	1	**11**
108	SEQSEM	California coast redwood	*Sequoia sempervirens*	35.5	2.96	4	4	0	0	0	1	1	1	**11**
109	SEQSEM	California coast redwood	*Sequoia sempervirens*	47.0	3.92	4	3	1	0	0	1	1	1	**11**
110	SEQSEM	California coast redwood	*Sequoia sempervirens*	68.0	5.67	4	4	1	0	0	1	1	1	**12**
111	SEQSEM	California coast redwood	*Sequoia sempervirens*	33.7	2.81	4	4	1	1	0	1	1	1	**13**
112	GINBIL	ginkgo	*Ginkgo biloba*	9.0	0.75	4	4	0	1	1	1	1	1	**13**
113	SEQSEM	California coast redwood	*Sequoia sempervirens*	12.0	1.00	4	3	0	0	0	1	1	1	**10**
114	SEQSEM	California coast redwood	*Sequoia sempervirens*	19.0	1.58	4	3	0	0	0	1	1	1	**10**
115	ULM SP.	elm	*Ulmus species*	6.1	0.51	4	2	0	1	0	1	1	1	**10**
116	QUEROB	English oak	*Quercus robur*	20.0	1.67	4	3	0	1	0	1	1	1	**11**
117	SEQSEM	California coast redwood	*Sequoia sempervirens*	27.0	2.25	4	4	1	1	0	1	1	1	**13**
118	PYRCAL	Bradford pear	*Pyrus calleryanana 'Bradford'*	2.5	0.21	4	4	1	1	1	1	1	1	**14**
119	MORALB	fruitless mulberry	*Morus alba*	17.1	1.42	4	4	1	1	0	1	1	1	**13**
120	MORALB	fruitless mulberry	*Morus alba*	22.7	1.89	4	4	1	1	0	1	1	1	**13**
121	QUELOB	valley oak	*Quercus lobata*	14.5	1.21	4	4	0	1	1	1	1	1	**13**
122	TILCOR	little leaf linden	*Tilia cordata*	31.8	2.65	4	3	0	0	0	1	1	1	**10**
123	LAGIND	crape myrtle	*Lagerstroemia indica*	4.5	0.38	4	3	0	1	1	1	1	1	**12**
124	QUELOB	valley oak	*Quercus lobata*	26.0	2.17	4	4	0	1	0	1	1	1	**12**
125	QUELOB	valley oak	*Quercus lobata*	9.0	0.75	4	2	0	1	0	1	1	1	**10**

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RESULTS
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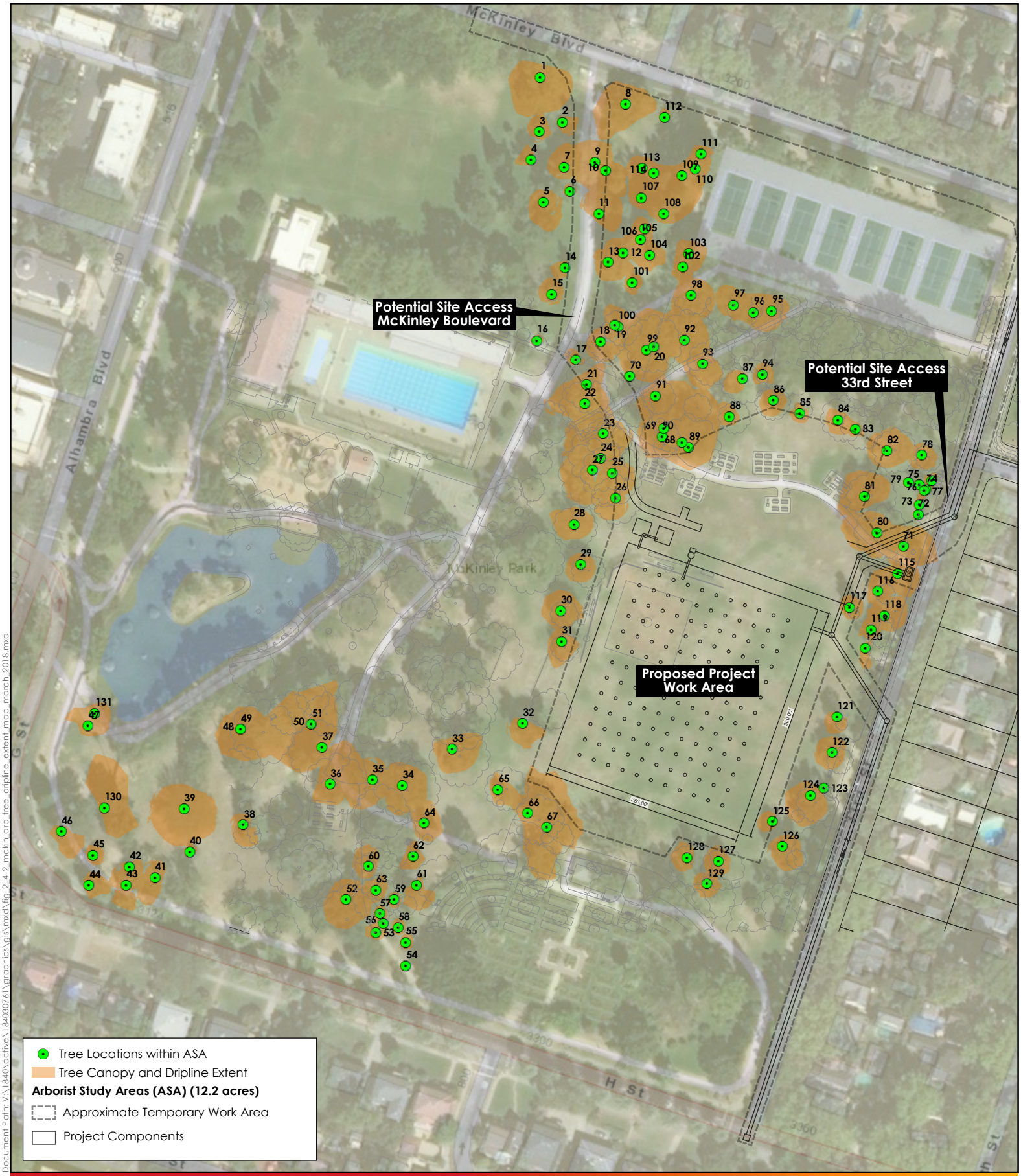
Tree ID	Species Code	Common Name	Scientific Name	DSH (inches)	DSH (Feet)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasite	Insects	Total Health Score
126	QUELOB	valley oak	*Quercus lobata*	23.0	1.92	4	4	0	1	0	1	1	1	**12**
127	QUECOC	scarlet oak	*Quercus coccinea*	12.0	1.00	4	3	0	1	0	1	1	1	**11**
128	QUECOC	scarlet oak	*Quercus coccinea*	13.0	1.08	4	4	0	1	0	1	1	1	**12**
129	ULM SP.	elm	*Ulmus* species	17.0	1.42	4	4	0	1	0	1	1	1	**12**
130	CUPFUN	mourning cypress	*Cupressus funebris*	38.7	3.23	4	3	0	1	0	1	1	1	**11**
131	PRUCER	purple leaf plum	*Prunus cerasifera*	11.0	0.92	4	4	0	1	1	1	1	1	**13**



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Project: 184030594; Sources: Stantec 2017. Created By: M. Kennedy. 3/6/2018. Updated: Date: 3/6/2018.
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User

Stantec

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Figure 2
Arborist Study Results

City of Sacramento
McKinley Water Vault Project

5.0 CONCLUSIONS

5.1 RESULTS SUMMARY

Qualified Stantec professionals conducted a protocol-level field survey on April 27, 2017 and a follow-up survey on August 22, 2017 in accordance with American National Standard for Tree Care Operations—Tree, Shrub and Other Woody Plant Maintenance-Standard Practices (ANSI A300 standards). The Report was prepared and reviewed by a Qualified Arborist meeting City technical and professional requirements and in accordance with ANSI A300 standards (CC 12.56.020).

The field survey was conducted within the 12.2 acre ASA from the ground-level and was based on the visual inspection of trees occurring within the proposed Project area; including 6.8 acres of work area, 1.8 acres of H Street access, 2.0 acres of McKinley Boulevard access, 0.6 acre 33rd Street access, and 1.0 acre trench work area. Specific assessment metrics documented included species, DSH, canopy cover, bark health, new and surface growth, leaf color, disease (including parasites and insect infestations), and other notable characteristics (Figure 2 Arborist Study Results).

The arborist field survey mapped 131 total trees, both native, non-native, and invasive, within the proposed Project area vicinity. Of the surveyed trees 129 were within the ASA and were identified and assessed resulting in identification of 33 unique species in good and excellent condition with an average good health score of 11 Tree canopies were mapped to establish recommended Tree Protection/Avoidance Zones and are illustrated on Figure 2.

5.2 PERMITTING REQUIREMENTS

As explained in the City of Sacramento Tree Ordinance, Sacramento City Code 12.56 (Section 2.2 above) Section 12.56 of the CC requires a tree permit be obtained before 'regulated work' is performed on City trees and/or private protected trees (Appendix C Tree Permit Application). The ASA is located entirely within a City Park; therefore, these recommendations are limited to City Trees within City property.

If the proposed Project would impact the identified dripline (protection zone) of City trees CC 12.56 would apply. Tree protection zones were delineated by the dripline and extent of the canopy during field surveys. This geographic information was evaluated in conjunction with the health assessment to establish the recommended tree protection zone as shown on Figure 2.

This Report is intended to meet the Arborist Report requirements of CC 12.56 as well as to inform the City's Project design decisions. This Report may be used to support design decisions and used by the City's Department of Utilities project manager to justify to the City Council the need for removal of certain trees in accordance with CC12.56.040.

5.3 RECOMMENDATIONS

To support tree preservation during engineering avoidance and design efforts, the following standard Best Management Practices (BMPs) are recommended to reduce impacts to trees within the ASA and surrounding the proposed Project:

- Continue consultation with a qualified arborist throughout the proposed Project design process. This could include a pre-construction meeting with on-site Project personnel as well. Also ensure that tree protection measures as specified by the City, and proposed Project arborist, are written into construction specifications;
- Integrate preserved trees with other design elements;
- Following final design and approval, trees that have the potential to be impacted should be tagged with the corresponding identification numbers documented in this Report to provide a system for monitoring;
- 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 a qualified 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.

6.0 REFERENCES

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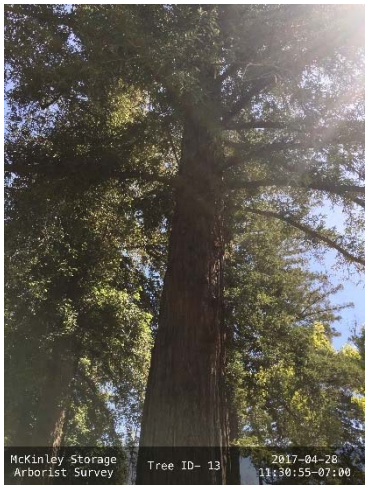
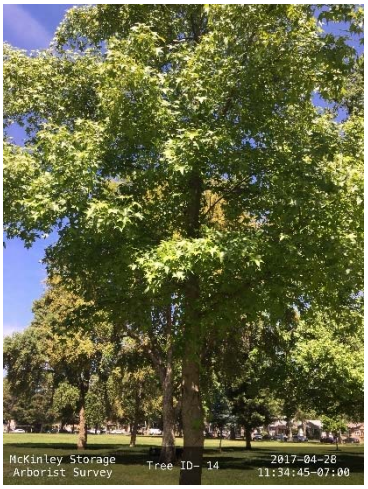
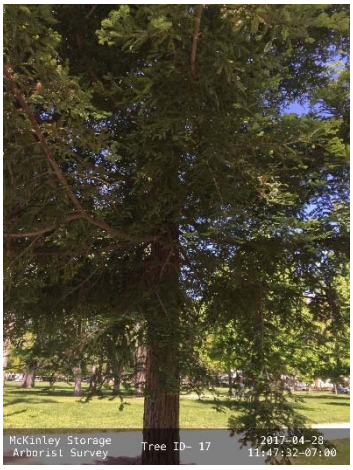
Appendix A PHOTO RECORD

The Photo Record documents site conditions and trees tagged during the Arborist Study conducted on April 27, 2017 within the proposed Project area ASA.

		
Tree ID-1: London planetree; American sycamore (Platanus x acerifolia; Planatus occidentalis)	Tree ID-2: red oak (Quercus rubra)	Tree ID-3: Chinese elm (Ulmus parviflora)
		
Tree ID-4: cork oak (Quercus suber)	Tree ID-5: American sycamore (Platanus occidentalis)	Tree ID-6: chestnut oak (Quercus prinus)

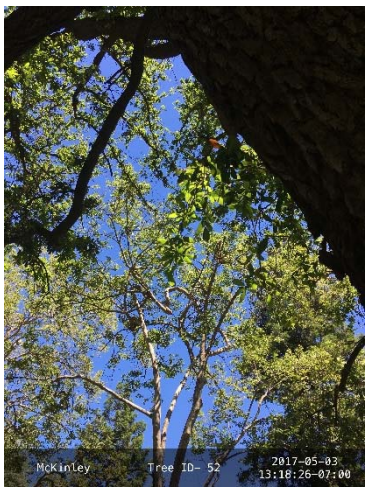
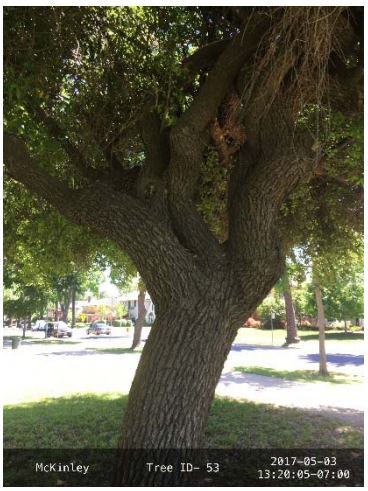
		
Tree ID-7: sawleaf zelkova (*Zelkova serrata)*	Tree ID-8: camphor (*Cinnamomum camphora)*	Tree ID-9: elm (*Ulmus* species*)*
		
Tree ID-10: Chinese pistache (*Pistacia chinensis)*	Tree ID-11: Chinese pistache (*Pistacia chinensis)*	Tree ID-12: California coast redwood *(Sequoia sempervirens)*
		
Tree ID-13: California coast redwood *(Sequoia sempervirens)*	Tree ID-14: American sycamore (*Platanus occidentalis)*	Tree ID-15: cork oak (*Quercus suber)*

		
Tree ID-16: Mexican fan palm (*Washingtonia robusta)*	Tree ID-17: California coast redwood *(Sequoia sempervirens)*	Tree ID-18: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*
		
Tree ID-19: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-20: camphor (*Cinnamomum camphora)*	Tree ID-21: Australian pine (*Casuarina equisetifolia)*
		
Tree ID-22: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-23: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-24: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*

		
Tree ID-25: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-26: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-27: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*
		
Tree ID-28: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-29: English oak (*Quercus robar*)	Tree ID-30: scarlet oak (*Quercus coccinea)*
		
Tree ID-31: Chinese pistache (*Pistacia chinensis)*	Tree ID-32: black locust (*Robinia pseudocacia)*	Tree ID-33: camphor (*Cinnamomum camphora)*

		
Tree ID-34: black oak (*Quercus kelloggii)*	Tree ID-35: Chinese pistache (*Pistacia chinensis)*	Tree ID-36: English oak (*Quercus robar)*
		
Tree ID-37: elm (*Ulmus* species*)*	Tree ID-38: Deodar cedar (*Cedrus deodara)*	Tree ID-39: elm (*Ulmus* species*)*
		
Tree ID-40: Norway spruce (*Picea abies)*	Tree ID-41: fruitless mulberry *(Morus alba)*	Tree ID-42: fruitless mulberry *(Morus alba)*

		
Tree ID-43: gingko (*Gingko biloba)*	Tree ID-44: tulip tree (*Liriodendron tulipfera)*	Tree ID-45: elm (*Ulmus* species)
		
Tree ID-46: Austrian pine (*Pinus nigra).* Note this tree is not within the ASA or included with assessment data (Table 4)	Tree ID-47: morning cypress (*Cupressus funebris).* Note this tree is not within the ASA or included with assessment data (Table 4)	Tree ID-48: coast live oak (*Quercus agrifolia)*
		
Tree ID-49: coast live oak (*Quercus agrifolia)*	Tree ID-50: coast live oak (*Quercus agrifolia)*	Tree ID-51: coast live oak (*Quercus agrifolia)*

		
Tree ID-52: coast live oak (*Quercus agrifolia)*	Tree ID-53: coast live oak (*Quercus agrifolia)*	Tree ID-54: black cottonwood (*Populus trichocarpa)*
		
Tree ID-55: Chinese pistache (*Pistacia chinensis)*	Tree ID-56: Chinese pistache (*Pistacia chinensis)*	Tree ID-57: pear (*Pyrus species)*
		
Tree ID-58: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*	Tree ID-59: California coast redwood (*Sequoia sempervirens)*	Tree ID-60: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*

		
Tree ID-61: California coast redwood (*Sequoia sempervirens)*	Tree ID-62: California coast redwood (*Sequoia sempervirens)*	Tree ID-63: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis)*
		
Tree ID-64: Sequoia sempervirens (*Sequoia sempervirens)*	Tree ID-65: cork oak (*Quercus subra)*	Tree ID-66: camphor (*Cinnamomum camphora)*
		
Tree ID-67: camphor (*Cinnamomum camphora)*	Tree ID-68: elm (*Ulmus* species*)*	Tree ID-69: Chinese pistache (*Pistacia chinensis)*

		
Tree ID-70: London planetree; American sycamore (*Platanus* x *acerifolia; Planatus occidentalis*)	Tree ID-71: sawleaf zelkova: (*Zelkova serrata)*	Tree ID-72: camphor (*Cinnamomum camphora)*
		
Tree ID-73: crape myrtle (*Lagerstroemia indica)*	Tree ID-74: crape myrtle (*Lagerstroemia indica*)	Tree ID-75: elm (*Ulmus* species*)*
		
Tree ID-76: elm (*Ulmus* species*)*	Tree ID-77: crape myrtle (*Lagerstroemia indica*)	Tree ID-78: valley oak (*Quercus lobata*)

		
Tree ID-79: valley oak (*Quercus lobata*)	Tree ID-80: American sycamore (*Plantanus occidentalis*)	Tree ID-81: American sycamore (*Plantanus occidentalis*)
		
Tree ID-82: gray pine (*Pinus sabiana*)	Tree ID-83: London planetree; (*Platanus* x *acerifolia)*	Tree ID-84: sawleaf zelkova: (*Zelkova serrata)*
		
Tree ID-85: sawleaf zelkova: (*Zelkova serrata)*	Tree ID-86: sawleaf zelkova: (*Zelkova serrata)*	Tree ID-87: London planetree; (*Platanus* x *acerifolia)*

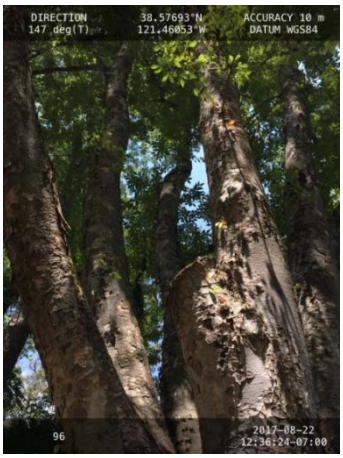
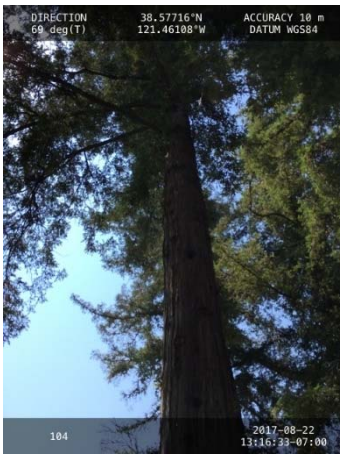
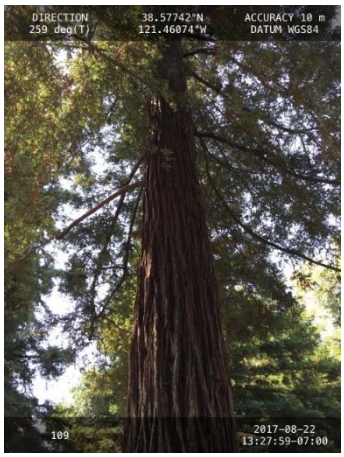
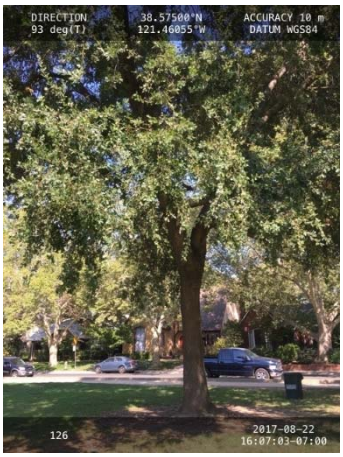
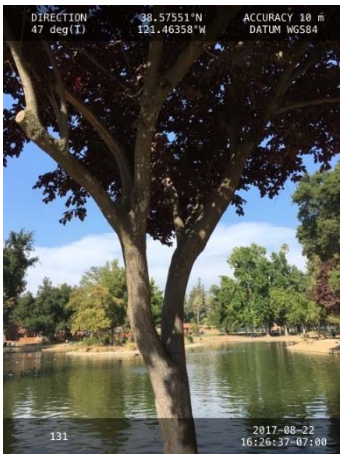
		
Tree ID-88: London planetree; (*Platanus* x *acerifolia*)	Tree ID-89: sawleaf zelkova: (*Zelkova serrata*)	Tree ID-90: sawleaf zelkova: (*Zelkova serrata)*
		
Tree ID-91: London planetree; (*Platanus* x *acerifolia*)	Tree ID-92: camphor (*Cinnamomum camphora*)	Tree ID-93: black cottonwood (*Populus trichocarpa*)
		
Tree ID-94: black cottonwood (*Populus trichocarpa*)	Tree ID-95: Chinese elm (*Ulmus parvifolia*)	Tree ID-96: Chinese elm (*Ulmus parvifolia*)

	Photo N/A	
Tree ID-97: sawleaf zelkova: (*Zelkova serrata*)	Tree ID-98: liquidambar (*Liquidambar styraciflua*)	Tree ID-99: Chinese elm (*Ulmus parvifolia*)
Photo N/A		Photo N/A
Tree ID-100: London planetree; (*Platanus x acerifolia*)	Tree ID-101: California coast redwood (*Sequoia sempervirens*)	Tree ID-102: black cottonwood (*Populus trichocarpa*)
		
Tree ID-103: California coast redwood (*Sequoia sempervirens*)	Tree ID-104: California coast redwood (*Sequoia sempervirens*)	Tree ID-105: California coast redwood (*Sequoia sempervirens*)

		
Tree ID-106: California coast redwood (*Sequoia sempervirens*)	Tree ID-107: California coast redwood (*Sequoia sempervirens*)	Tree ID-108: California coast redwood (*Sequoia sempervirens*)
		
Tree ID-109: California coast redwood (*Sequoia sempervirens*)	Tree ID-110: California coast redwood (*Sequoia sempervirens*)	Tree ID-111: California coast redwood (*Sequoia sempervirens*)
		Photo N/A
Tree ID-112: ginkgo (*Ginkgo biloba*)	Tree ID-113: California coast redwood (*Sequoia sempervirens*)	Tree ID-114: California coast redwood (*Sequoia sempervirens*)

		
Tree ID-115: elm (*Ulmus* species)	Tree ID-116: English oak (*Quercus robur*)	Tree ID-117: California coast redwood (*Sequoia sempervirens*)
		Photo N/A
Tree ID-118: Bradfor pear (*Pyrus calleryanana* 'Bradford')	Tree ID-119: fruitless mulberry (*Morus alba*)	Tree ID-120: fruitless mulberry (*Morus alba*)
		
Tree ID-121: valley oak (*Quercus lobata*)	Tree ID-122: little leaf linden (*Tilia cordata*)	Tree ID-123: crape myrtle (*Lagerstroemia indica*)

		
Tree ID-124: valley oak (*Quercus lobata*)	Tree ID-125: valley oak (*Quercus lobata*)	Tree ID-126: valley oak (*Quercus lobata)*
		
Tree ID-127: scarlet oak (*Quercus coccinea*)	Tree ID-128: scarlet oak (*Quercus coccinea*)	Tree ID-129: elm (*Ulmus* species)
		
Tree ID-130: mourning cypress (*Cupressus funebris*)	Tree ID-131: purple leaf plum (*Prunus cerasifera*)	

Appendix B BASELINE ARBORIST STUDY DATASHEETS

Baseline Arborist Survey Datasheet

Project McKinley Storage (1) **Site** McKinley Park

Client City of Sacramento **Date** 04-18-2017

Weather Clear, Breezy, 63°F **Observer(s)** R. Reynolds, E. Fitzwilliam

Site Conditions Urban Park

Notes Site #01, Canopies recorded as general area.

GPS- DBH-needs trimmed, omit "tree health," DBH multi stem → $(X^2)+(X^2)=\sqrt{Y}=DBH$

Baseline Data				Tree Health Assessment									
Tree Number	ROW Tree Location	Species	DBH (FEET)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
1	IN	PLAACE	10.20	4	4	1	1	1	1	1	1	14	Street tree
2	NO	QUERUB	2.72	4	4	0	1	1	1	1	1	13	Along Foot path
3	NO	ULMPAR	2.03	3	4	0	1	1	1	1	1	12	Along foot path, weeping canopy
4	NO	QUESUB	2.46	4	3	0	1	1	1	1	1	12	Along foot path
5	NO	PLAOCC	9.28	4	4	1	1	0	1	1	1	13	Along foot path
6	NO	QUEPRI	0.83	3	3	0	1	1	1	1	0	10	Along foot path
7	NO	ZELSER	7.50	3	3	1	1	0	1	1	0	10	Along foot path, Nest
8	IN	CINCAM	9.30	4	4	1	0	1	1	1	0	12	Splits above BH, Street tree, Bird box
9	NO	ULM SP.	7.44	3	3	1	1	0	1	1	0	8	Along foot path
10	NO	PISCHI	5.81	3	4	1	1	0	1	1	0	11	Along foot path, Canker sp. AS #9
11	NO	PISCHI	7.25	3	3	1	1	0	1	1	0	10	Along foot path, Sawfly sp. AS #9 & #10
12	NO	SEQSEM	8.43	4	4	1	0	1	1	1	0	12	Along foot path
13	NO	SEQSEM	12.15	4	3	1	0	1	1	1	0	11	Along foot path; Limbed
14	NO	PLAOCC	2.18	4	3	1	1	0	1	1	1	12	Along foot path
15	NO	QUESUB	2.69	4	4	1	1	1	1	1	1	14	Along foot path
16	NO	WASROB	8.69	2	2	0	1	1	1	1	1	9	Along foot path

Project McKinley Street Site #1 Date 04-28-2017 Tree Health Assessment Datasheet pg 2 of 5

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
17	out	SEQSEM	2.90	3	3	1	1	0	1	1	0	10	~~Power Line through Canopy~~ Along Foot Path
18	out	PLAACE	4.44	3	4	1	0	1	1	1	0	11	Along foot Path
19	out	PLAACE	5.12	3	4	1	0	0	1	1	0	10	Base cleared of vegetation Along foot Path
20	out	CINCAM	10.02	4	4	1	1	1	1	1	1	14	Base cleared of vegetation. Along foot path, power line through canopy
21	out	CASEQU	9.14	3	3	0	0	0	1	1	0	8	along foot path
22	out	PLAACE	7.11	4	4	1	0	0	1	1	0	11	along foot path
23	out	PLAACE	6.84	4	3	0	0	1	1	1	0	10	Power Line attached to base Along foot path @ field
24	out	PLAACE	6.85	4	3	1	0	0	1	1	0	10	Along foot path @ field
25	out	PLAACE	6.25	4	3	1	0	0	1	1	0	10	Base cleared of veg. Along foot path @ field
26	out	PLAACE	5.43	3	3	1	0	1	1	1	0	10	Base cleared of veg. Along foot path @ field
27	out	PLAACE	7.81	4	3	1	0	1	1	1	0	11	Along foot path @ field
28	out	PLAACE	6.29	3	3	0	0	1	1	1	0	9	@ field, veg cleared @ base, BIRD BOX
29	out	QUEROB	3.32	4	3	1	1	0	1	1	1	12	@ field
30	out	QUECOC	3.92	4	4	1	1	1	1	1	1	14	@ field, weeping canopy
31	out	PISCHI?	10.85	2	2	1	1	0	1	1	0	8	@ field.

ASSESSMENT KEY

Canopy Cover	1- Sparse to full die-back (0-25%); 2- Partial (25-50%); 3- Medium (50-75%); 4- Full (75-100%)
Bark Health	1- Poor to No bark (75-100%); 2- Fair (50-75%); 3-Good (25-50%); 4- Excellent (0-25%)
New Growth	1- Present; 0- Not present
Leaf Color	1- Normal; 0- Abnormal
Surface Growth	1- Not Present; 0- Present
Disease	1- Not Present; 0- Present
Parasites	1- Not Present; 0- Present
Insects	1- Not Present; 0- Present
Overall Tree Health	1-3 Poor Health/Dead; 4-7 Fair Health; 7-10 Good Health; 11-14 Excellent Health

TREE SPECIES REFERENCE KEY

CA Oak	
CVC	
English Oak	
Deja Sulis	
Chinese Elm	
Platane	
Australian Pine	

Chinese ELM - Ulmus parvifolia
There is ALSO English Oak
CA fan palm or Queen Palm

Baseline Arborist Survey Datasheet

Project Mckinley Storage **Site** McKinley PARK (SITE #1)

Client City of Sacramento **Date** 5/3/2017

Weather 81°F, Clear **Observer(s)** M. KENNEDY, S. [illegible]

Site Conditions URBAN park

Notes (no new trees from last page)

Baseline Data				Tree Health Assessment									Notes
Tree Number	Tree Location	Species	DBH (FEET)	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	
32	OUT	ROBPSE	10.74	3	3	1	1	0	1	1	0	10	@ field
33	OUT	CINCAM	7.83	4	3	1	0	0	1	1	1	11	H St Access route
34	OUT	QUAKEL	8.79	4	4	1	1	0	1	1	0	12	H. St. Access route
35	OUT	PISCHI	7.50	4	4	1	1	1	1	1	0	13	H. St Access @ foot path
36	OUT	QUERUB	7.10	4	2	1	1	0	1	1	0	10	H. St. Access @ foot path
37	OUT	ULM SP.	10.71	4	3	1	1	0	1	1	0	11	H. St. access @ foot path
38	OUT	CEDDEO	7.12	3	4	1	1	1	1	1	0	12	H. St. Access
39	OUT	ULM. SP.	7.89	4	4	1	1	0	1	1	1	13	H. Street access
40	OUT	PICABI	1.78	4	2	1	1	0	1	1	0	10	H. Street Access, pitch, & BLACK BERRIES
41	IN	MORALB	8.78	3	3	1	1	0	1	1	0	10	H. St. Access @ H St
42	IN	MORALB	7.17	3	3	1	1	0	1	1	0	10	H. ST Access @ H ST. INVASIVE KERRY (SAME AS #41)
43	IN	GINBIL	3.51	4	4	1	1	0	1	1	1	13	H. St. Access @ H St
44	IN	LIRTUL	6.21	3	4	1	1	1	1	1	0	13	H. ST. Access @ H. Street, Flowering
45	IN	ULM SP.	1.52	4	3	1	1	0	1	1	0	11	H. St. Access. Potential for [illegible]
46	IN	PINNIG	9.90	4	4	1	1	0	1	1	0	12	H. St. Access @ H. St, pond wax dropline
47	IN	CUPFUN	9.46	4	2	0	0	0	1	1	0	9	H. St. Access, split below DBH

↕ Multiple stem: 2.02, 4.02, 3.29, 4.44, 6.23

POSS REM

Project McKinley Storage Site McKinley Park Date 05/03/17 Tree Health Assessment Datasheet pg 4 of 5

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
48	IN	QUEAGR	9.87	4	4	1	0	1	1	1	0	12	along footpath
49	IN	QUEAGR	6.71	3	3	1	1	1	0	1	0	10	; along footpath; potential canker
50	IN	QUEAGR	16.70	4	3	1	0	0	0	1	0	9	at field; potential cankers
51	IN	QUEAGR	9.16	4	3	1	0	0	0	1	0	9	; at field, potential cankers
52	IN	QUEVIR	12.03	4	3	1	0	0	1	1	0	10	near HSt
53	IN	QUEVIR	6.09	4	4	1	0	1	1	1	0	12	· at HSt. along footpath
54	IN	POPTRI	1.06	3	3	1	1	0	0	1	0	9	; at HSt; along footpath
55	IN	PISCHI	0.63	4	3	1	1	0	1	1	1	12	; along footpath
56	IN	PISCHI	0.90	4	3	1	1	0	1	1	1	12	along; foot path
57	IN	PYR SP.	8.50	4	3	1	1	0	1	1	0	11	Bradford Pear?, along footpath; near gar
58	IN	PLAACE	5.81	3	4	1	0	0	1	1	0	10	; along footpath
59	IN	SEQSEM	9.9	4	4	1	0	0	1	1	0	11	; near garden;
60	IN	PLAACE	4.87	3	3	1	0	0	1	1	1	9	; along footpath; veg clea around
61	IN	SEQSEM	0.94	4	4	1	0	0	1	1	1	12	; near gardens
62	IN	SEQSEM	5.17	4	3	1	1	0	1	1	0	11	; near gardens

ASSESSMENT KEY

Canopy Cover	1- Sparse to full die-back (0-25%); 2- Partial (25-50%); 3- Medium (50-75%); 4- Full (75-100%)
Bark Health	1- Poor to No bark (75-100%); 2- Fair (50-75%); 3-Good (25-50%); 4- Excellent (0-25%)
New Growth	1- Present; 0- Not present
Leaf Color	1- Normal; 0- Abnormal
Surface Growth	1- Not Present; 0- Present
Disease	1- Not Present; 0- Present
Parasites	1- Not Present; 0- Present
Insects	1- Not Present; 0- Present
Overall Tree Health	1-3 Poor Health/Dead; 4-7 Fair Health; 7-10 Good Health; 11-14 Excellent Health

TREE SPECIES REFERENCE KEY

PIR	
PLAACE	
QUE AGR	
QUE VIR	
Quercus Distinct	

Baseline Arborist Survey Datasheet

Project McKinley Park Storage
Client City of Sacramento
Weather sunny, clear, 90°F
Site Conditions urban park
Notes no new notes

Site McKin
Date 05/03/17
Observer(s) MKennedy, ECarmichael

multiple; 3.97, 6.66

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
63	IN	PLAACE	4.95	3	4	1	0	0	1	1	0	10	along footpath
64	IN	SEQSEM	4.47	4	4	1	1	0	1	1	0	12	
65	IN	QUEVIR	7.04	4	4	1	1	1	1	1	0	13	at field; wood chips @ base
66	IN	CINCAM	7.83	4	4	1	0	0	1	1	0	11	at field; wood chips @ base
67	IN	CINCAM	7.75	4	4	1	0	0	1	1	0	11	at field, wood chips @ base
68	IN	ULMSP.	8.85	4	4	1	1	0	1	1	0	12	along foot path; veg cleared @ base
69	IN	PISCHI	7.55	4	4	1	1	1	1	1	0	13	along footpath; cable tag attached to bole
70	IN	PLAACE	4.87	3	3	1	0	0	1	1	0	9	along foot path; veg cleared @ base

Baseline Arborist Survey Datasheet

Project McKinley Park Storage Vault **Site** McKinley Park

Client City of Sacramento **Date** 8/22/17

Weather Partly Cloudy, 80° **Observer(s)** M. Oats, Z Pope

Site Conditions

Notes

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
71	33rd St.	ZELSER	4.5, 3.5, 4	4	3	0	1	0	1	1	0	10	near Pathway
72	33rd St.	EUCAM	2.5, 2.5, 3, 2	4	3	1	1	1	1	1	1	13	in Concrete area next to veg
73	33rd St.	LAGIND	6	4	2	0	1	1	1	1	1	11	in Concrete area next to veg
74	33rd St.	LAGIND	4, 3.5	3	2	0	1	1	1	1	1	10	in Concrete area next to veg
75	33rd St.	ULMUS SP	2.5, 3.5, 2.5, 2.5, 3, 2.5, 2.5, 3, 2.5	4	2	0	1	0	1	1	1	10	in concrete area next to veg.
76	33rd St.	ULMUS SP	3, 3, 4, 4.5, 3	4	2	1	1	0	1	1	1	11	in concrete area next to veg.
77	33rd St.	LAGIND	5.5, 4.5, 5.5	4	3	0	1	1	1	1	1	12	in concrete area next to veg.
78	33rd St.	QUELOB	19.5	4	4	0	1	1	1	1	1	13	dripline done
79	33rd St.	QUELOB	11.5	4	4	0	1	1	1	1	1	13	,
80	33rd St.	PLAOC	42	4	3	0	1	0	1	1	0	10	has silver tag, dripline done
81	Picnic Benches	PLAOC	32	4	4	0	1	1	1	1	0	12	dripline done
82	Pic c Benc	PINSAB	46	4	4	0	0	0	1	1	1	11	drip line done
83	Picnic Benche	PLA x ACE	10	3	2	0	0	1	1	1	1	9	not wide drip line
84	Picnic Benches	ZELSER	29.5	4	4	0	0	1	1	1	1	12	not wide drip line
85	Picnic Benches	ZELSER	19	3	4	1	1	0	1	1	1	12	not wide drip line
86	Picnic Benches	ZELSER	43	2	3	0	0	1	1	1	1	9	has silver tag (#72), dripline done

Baseline Arborist Survey Datasheet

Project McKinley Park Storage Vault **Site** McKinley Park

Client City of Sacramento **Date** 8/22/17

Weather Partly Cloudy/ 85° **Observer(s)** M. Oats; Z. Pope

Site Conditions

Notes

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
87	Picnic Benches	PLA x ACE	19.5	4	3	0	0	1	1	1	1	11	drip line done
88	Picnic Benches	PLA x ACE	17.5	4	4	0	0	0	1	1	1	11	dripline done
89	Picnic Benches	ZELSER	34	4	3	0	1	0	0	1	1	10	dripline done
90	Picnic Benches	ZELSER	29	4	3	0	1	0	1	1	1	11	has silver tag (#74), dripline done
91	Restroom/ path	PLA x ACE	18.5	3	3	1	0	1	1	1	1	11	drip line done
92	tennis courts	CINCAM	38.5	4	3	0	1	0	1	1	1	11	
93	tennis courts	POPTRI	20.5	4	4	1	0	1	1	1	1	13	
94	tennis courts	POPTRI	19	4	3	1	1	0	1	1	1	12	
95	tennis courts	ULMPAR	27	4	2	0	0	0	1	1	1	9	
96	tennis courts	ULMPAR	29.5	4	2	1	1	0	1	1	1	11	
97	tennis courts	ZELSER	31.5	4	3	0	1		1	1	1	11	
98	tennis courts/ wall	LIQSTY	30	4	4	0	1	0	1	1	1	12	
99	Restroom/ tennis courts	ULMPAR	39	4	3	0	1	0	1	1	1	11	drip line done
100	tennis court/ restroom	PLA x ACE	20	3	4	1	0	0	1	1	1	11	drip line done
101	tennis court	SEQSEM	10	4	4	1	0	1	1	1	1	13	
102	tennis courts	POPTRI	31	4	3	0	1	1	1	1	1	12	

Baseline Arborist Survey Datasheet

Project McKinley Park Storage Vault **Site** McKinley Park

Client City of Sacramento **Date** 8/22/17

Weather Partly cloudy; 90° **Observer(s)** M. Oats; Z Pope

Site Conditions

Notes

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
103	tennis courts	SEQSEM	53.5	4	4	1	1	1	1	1	1	14	
104	tennis courts/path	SEQSEM	32	4	4	1	0	0	1	1	1	12	
105	tennis courts	SEQSEM	59	4	4	1	0	1	1	1	1	13	
106	tennis courts	SEQSEM	45	4	3	1	0	0	1	1	1	11	
107	tennis courts Mckinely	SEQSEM	17	4	3	1	0	0	1	1	1	11	
108	tennis courts Mckinely	SEQSEM	35 5	4	4	0	0	0	1	1	1	11	
109	Mckinely tennis	SEQSEM	47	4	3	1	0	0	1	1	1	11	
110	Mckinely tennis	SEQSEM	68	4	4	1	0	0	1	1	1	12	
111	Mckinely tennis	SEQSEM	10.5, 17, 24	4	4	1	1	0	1	1	1	13	
112	Mckinely	GINBIL	9	4	4	0	1	1	1	1	1	13	
113	Mckinely path	SEQSEM	12	4	3	0	0	0	1	1	1	10	has a chain around it
114	Mckinley tennis	SEQSEM	19	4	3	0	0	0	1	1	1	10	
115	33rd St	ULMUS sp.	5, 35	4	2	0	1	0	1	1	1	10	close to path on 33rd St
116	33rd St	QUEROB	20	4	3	0	1	0	1	1	1	11	close to path on 33rd St.
117	33rd St	SEQSEM	27	4	4	1	1	0	1	1	1	13	
118	33rd St	PYR CAL	2.5	4	4	1	1	1	1	1	1	14	

Canadian Geese
Grey Squirrel

Baseline Arborist Survey Datasheet

Project McKinley Park Storage Vault **Site** McKinley Park

Client City of Sacramento **Date** 8/22/17

Weather Partly Cloudy; 90° **Observer(s)** M. Oats; Z. Pope

Site Conditions

Notes

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
119	33rd St.	MORALB	7.5, 10, 10, 6	4	4	1	1	0	1	1	1	13	
120	33rd St.	MORALB	12, 6.5, 8, 9, 13.5	4	4	1	1	0	1	1	1	13	
121	33rd St	QUELOB	14.5	4	4	0	1	1	1	1	1	13	drip line done
122	33rd St	TILCOR	30.5, 9	4	3	0	0	0	1	1	1	10	drip line done
123	33rd	LAGIND	4.5	4	3	0	1	1	1	1	1	12	
124	33rd	QUELOB	26	4	4	0	1	0	1	1	1	12	drip line done
125	33rd	QUELOB	9	4	2	0	1	0	1	1	1	10	drip line done
126	33rd	QUELOB	23	4	4	0	1	0	1	1	1	12	drip line done
127	Rose garden	QUECOC	12	4	3	0	1	0	1	1	1	11	drip line done
128	Rose garden	QUECOC	13	4	4	0	1	0	1	1	1	12	drip line done
129	Rose garden	ULMUS SP.	17	4	4	0	1	0	1	1	1	12	
130	6 St.	CUPFUN	36.5, 13	4	3	0	1	0	1	1	1	11	
131	Alhambra	PRUCER	11	4	4	0	1	1	1	1	1	13	

Compiled Species List: Mckinley Storage Project

Baseline Arborist Survey Datasheet

Project _____ Site _____

Client _____ Date _____

Weather _____ Observer(s) _____

Site Conditions _____

Notes _____

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
		~~California Sycamore (Platanus Racemosa) – PLARAC~~											
		California Redwood (Sequoia Sempervirens) – SEQSEM											
		Chinese Elm (Ulmus Parvifolia) – ULMPAR											
		Cork Oak (Quercus Suber) – QUESUB											
		English oak (Quercus Robur) – QUEROB											
		Australian Pine (Casuarina equisetifolia) – CASEQU											
		Mexican fan Palm (Washingtonia Robusta) – WASROB											
		Ginkgo (Ginkgo biloba) – GINBIL											
		Tulip tree (Liriodendron tulipifera) – LIRTUL											
		fruitless mulberry (Morus alba) – MORALB											
		Coast Live oak (Quercus agrifolia) – QUEAGR											
		Chinese pistache (Pistacia chinensis) – PISCHI											
		London planetree (Platanus hybrid) – PLAHYB											or platanus occidentalis (PLAOCC) American plane
		Southern Live oak (Quercus virginiana) – QUEVIR											
		Black Cottonwood (Populus trichocarpa) – POPTRI											
		Camphor (Cinnamomum camphora) – CINCAM											

* Sawleaf Zelkova (Zelkova serrata) – ZELSER OR Ulmus sp. (various)
* Chestnut oak (Quercus Prinus) – QUEPRI
* Deodar Cedar (Cedrus deodara – CEDDEO

* SOME ARE HYBRIDS – LISTED AS CLOSEST IN DATA

SPECIES LIST CONTINUED

Project _____ Site _____ Date _____ Tree Health Assessment Datasheet pg 2 of 2

Baseline Data				Tree Health Assessment									
Tree Number	Tree Location	Species	DBH	Canopy Cover	Bark Health	New Growth	Leaf Color	Surface Growth	Disease	Parasites	Insects	Overall Health Score	Notes
Picea ABIES) Norway Spruce - PICABI													
Austrian pine (PiAus nigra) - PINNIG													
Pear sp. (Pyrus sp.) - PYR SP - Bradford Pear?													
Scarlet Oak (Quercus (coccinea) - QUECOC													
Red oak (Quercus rubra) QUERUB													
Morning Cypress (Cupressus funebris) - CUPFUN													
Black Locust (Robinia pseudoacacia) - ROBPSE													

ASSESSMENT KEY

Canopy Cover	1- Sparse to full die-back (0-25%); 2- Partial (25-50%); 3- Medium (50-75%); 4- Full (75-100%)
Bark Health	1- Poor to No bark (75-100%); 2- Fair (50-75%); 3-Good (25-50%); 4- Excellent (0-25%)
New Growth	1- Present; 0- Not present
Leaf Color	1- Normal; 0- Abnormal
Surface Growth	1- Not Present; 0- Present
Disease	1- Not Present; 0- Present
Parasites	1- Not Present; 0- Present
Insects	1- Not Present; 0- Present
Overall Tree Health	1-3 Poor Health/Dead; 4-7 Fair Health; 7-10 Good Health; 11-14 Excellent Health

TREE SPECIES REFERENCE KEY

McKinley

𝍸 II	ZELSER - Zelkova serrata
II	CINCAM - Cinnamomum camphora
IIII	LAGIND - Lagerstroemia indica
IIII	Ulmus species
𝍸 I	QUELOB - Quercus lobata
II	PLAOCC - Plantanus occidentalis
I	PINSAB - Pinus sabiana
𝍸	PLA x ACE - Plantanus x acerifolia
13	SEQSEM - Sequoia sempervirens
I	GINBIL - Ginkgo biloba
I	QUEROB - Quercus robur
I	PYRCAL - Pyrus calleryana 'Bradford'
II	MORALB - Morus alba
I	TILCOR - Tilia cordata
II	QUECOC - Quercus coccinea
I	CUPFUN - Cupressus funebris
I	PRUCER - Prunus cerasifera
II	POPTRI - Populus trichocarpa
III	ULMPAR - Ulmus parvifolia
I	LIQSTY - Liquidambar styraciflua

31

13
17

Appendix C TREE PERMIT APPLICATION

City of SACRAMENTO
Department of Public Works

TREE PERMIT APPLICATION

PLEASE SUBMIT APPLICATION TO

Email: urbanforestry@cityofsacramento.org

Postal Mail: 5730 24th Street Building 12-A Sacramento, California 95822

For questions please call 311

APPLICATIONS WILL BE CHARGED A FEE OF $50 TO COVER ARBORIST COSTS
INVOICE WILL BE MAILED TO APPLICANT AFTER PROCESSING

Applicant Information ☐ Property Owner ☐ Agent

Name: _____ Company: _____

Address: _____ City/Zip: _____ Phone: (____)_____

Email:_____ State Contractor License #_____

Property Owner Information (if different):

Name: _____ Phone ( ) _____

Address: _____

Owner/Agent Statement

Property Owner Consent— I am the legal owner of record of the land specified in this application or am authorized and empowered to act as an agent on behalf of the owner of record on all matters relating to this application. I declare that the foregoing is true and correct and accept that false or inaccurate owner authorization may invalidate or delay action on this application.

- A tree permit is nontransferable and must be kept on site when any work described in the permit is taking place.
- It is understood and agreed by the permittee that when any work is completed it shall constitute an acceptance of the permit general provisions.
- Any person who violates any provision of Sacramento City Code 12.56 is subject to criminal sanctions, civil actions, and administrative penalties up to $25,000 for each day the violation continues.

Signature: _____ Date: _____

Tree Information

☐City Tree ☐Residential: ☐ Front Yard ☐ Back Yard ☐ Side Yard
☐Private Protected Tree ☐Commercial

Proposed Activity: ☐Prune ☐Remove ☐Plant ☐Encroach into TPZ ☐Other_____

Address/Location of Tree: _____

Number of Trees: _____ Tree Species and Diameter: _____

_____

Reason for Action**:_____

_____

_____

****Any of the following items may be required to accompany this application:**

- ❖ Arborist report
- ❖ Landscape or tree planting plan
- ❖ Tree protection plan
- ❖ Site map
- ❖ Authorization of the property owner
- ❖ Tree replacement plan
- ❖ Proof of CA State License Board compliance
- ❖ Any other information as deemed necessary

Appendix D CULTURAL RESOURCES DOCUMENTATION

Stantec

Memo

January 17, 2018

Re: **Technical Memorandum addressing the Historic Resources Inventory and Evaluation of McKinley Park for the McKinley Water Vault Project, Draft Environmental Impact Report, APN 003-0010-002-000 and 004-0221-001-0000, Sacramento, California**

Stantec Consulting Services is pleased to provide the findings of the Cultural and Tribal Resources inventory and the Historic Resources Inventory and Evaluation of McKinley Park located in Sacramento, California. The property was evaluated under the criterion of the California Register of Historical Resources (CRHR) on a California Department of Parks and Recreation DPR 523 Form. The results are documented in full on the attached DPR 523 and summarized herein in this Technical Memorandum addressing the property and scope of work undertaken for the project.

RECORDS SEARCH AND BACKGROUND RESEARCH

Stantec conducted a formal records search of the North Central Information Center on October 19, 2017. 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 Office of Historic Preservation Historic Property Database. Cumulatively, the records search identified twenty-two cultural resources within 0.25 mile of the Project area (see Table 1 below).

Table 1. NCIC Records Search Results

Primary Number	Resource Type	Description	Within Project Area	Eligibility Status
P-34-001903	Built Environment	A 102- foot tall, concrete water tower (1937), located at 3230 J Street	No	Listed as 7L in OHP HPD
P-34-002342	Built Environment	The John T. Greene residence, a two-story building (1915), located at 3200 H Street	No	Listed as 1S in OHP HPD
P-34-002723	Built Environment	One story wood framed building located at 901 28th Street (1910)	No	Not Evaluated
P-34-002724	Built Environment	Two story wood framed building located at 903 28th Street (1913)	No	Not Evaluated
P-34-002725	Built Environment	One and one-half story wood framed building located at 518 Alhambra Blvd. (c. 1911)	No	Listed as 7R in OHP HPD
P-34-002764	Built Environment	one and one-half story wood framed building located at 3021 E Street (c. 1910-1915)	No	Listed as 7R in OHP HPD
P-34-002823	Built Environment	one and one-half story wood framed building with a	No	Listed as 7R in OHP HPD

		raised basement, located at 3012 G Street (1916)		
P-34-002876	Built Environment	one and one-half story wood framed building located at 2027 H Street (1913)	No	This building is not listed in the OHP HPD listing
P-34-002877	Built Environment	one story wood framed building located at 2731 H Street (1898)	No	Listed as 7R in OHP HPD
P-34-002878	Built Environment	one and one-half story wood framed building with a raised basement located at 3027 H Street (c. 1910-1915)	No	Listed as 7R in OHP HPD
P-34-002903	Built Environment	one and one-half story wood framed building with a raised basement located at 2820-30 I Street (c. 1910-1913)	No	Listed as 7R in OHP HPD
P-34-002904	Built Environment	one story wood framed building with a raised basement located at 3020 I Street (c. 1895)	No	Listed as 7R in OHP HPD
P-34-003468	Built Environment	two-story brick structure (Turn Verein Hall) located at 3349 J Street (1926)	No	Listed as 3S in OHP HPD
P-34-003471	Built Environment	two-story structure with raised basement located at 3439 J Street (c. 1900-1910)	No	Listed as 5S2 in OHP HPD
P-34-003472	Built Environment	two story structure located at 3468 J Street (c. 1895-1905)	No	Listed as 5S2 in OHP HPD
P-34-003473	Built Environment	two story structure located at 3521 J Street (1912)	No	Listed as 7N in OHP HPD
P-34-003713	Built Environment	fountain and Cypress trees which are the only remaining components of the now extant Alhambra Theater, located at 1025 Alhambra Boulevard (1927)	No	Listed as 5D2 in OHP HPD
P-34-003714	Built Environment	a complex consisting of two stuccoed buildings that were once a single building, located at 800 Alhambra Boulevard (1935-1936)	No	Listed as 5S2 in OHP H HPD
P-34-003879	Built Environment	plaque designating the site of the New Helvetia Cemetery, which was established in 1849 (plaque dedicated in 1937), located	No	Listed as 7L in OHP HPD

		at the northeast corner of Alhambra Boulevard and J Street		
P-34-003124	Built Environment	a segment of the Northern Electric/Sacramento Northern Railroad, located between 18th and 19th Streets (1907).	No	Not Evaluated
24 O189R Bridge	Built Environment	Sac-51, PM 1.2 Bridge at H Street UC (1966)	No	Not Evaluated

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. Additional research included review of available building permits and city maintenance records. Stantec also conducted research at the Center for Sacramento History, the Sacramento Room of the Sacramento Public Library, and pertinent online materials. This focused archival and background research allowed for development of a historic context, including city-wide park development, development of East Sacramento and a detailed history depicting the chronology and evolution of the park.

NATIVE AMERICAN OUTREACH

The City of Sacramento contacted individuals at both the Wilton Rancheria (WR) and the United Auburn Indian Community (UAIC): Antonio Ruiz (WR), Gene Whitehouse (UAIC), Cherilyn Neider (UAIC), Marcos Guerrero (UAIC), and Ed Silva (WR). On June 19, June 22, and June 29th, responses were received from the UAIC and WR, requesting consultation. On July 19, 2017, Scott Johnson contacted Mr. Guerrero, Mr. Hutcheson, and Mr. Silva to schedule a meeting. On July 26, 2017, a meeting date of August 23rd was agreed upon. Ms. Neider also requested GIS files and the cultural report. Mr. Johnson responded on the same day by providing information pertaining to Ms. Neider's question. On August 23, 2017, a phone conference with Mr. Guerrero and Tom Buford (City) was conducted. During the conference call, Mr. Guerrero 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 would send over their recommended measures. On August 23, 2017, Ms. Neider sent the recommended mitigation measures to Mr. Johnson. On September 26, 2017, Mr. Johnson emailed Mr. Ruiz and Mr. Silva to set up a meeting date and time with the Wilton Rancheria. On September 26, 2017, Mr. Ruiz Jr. responded saying he was available on October 6, 2017. At the meeting on October 6, 2017, WR representatives shared that they have knowledge of burials within the vicinity of the park, although they were not certain how far the burials are from the Park. They also asked the following questions: 1) if any preliminary geo-technical studies would be conducted, and if so, if there was opportunity for a tribal representative to monitor; 2) if archaeological resources had been identified within the project area; 3) what the soil haul routes were for soil removal; 4) where the staging areas are located, and 5) if there will be tree removal, and if so, how many trees. 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 Wilton Rancheria and the United Auburn Indian Community and they did not have any concerns about the project.

Reference: Technical Memorandum addressing the Historic Resources Inventory and Evaluation of McKinley Park for the McKinley Water Vault Project, Draft Environmental Impact Report, APN 003-0010-002-000 and 004-0221-001- 0000, Sacramento, California .

ARCHAEOLOGICAL AND ARCHITECTURAL HISTORY SITE INVENTORY

On October 21, 2017, a Stantec archaeologist conducted a pedestrian survey of the Project area. 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.

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 attached 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.

SUMMARY OF INVENTORY AND EVALUATION RESULTS

No archaeological resources were identified as a result of this effort. The inventory and evaluation of McKinley Park addresses the criterion of the CRHR. This project is conducted for Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) and includes inventory and evaluation of McKinley Park in order to determine whether the property appears to be a historically significant. As documented in detail in the accompanying DPR 523, McKinley Park does not appear to meet the criterion for listing in the CRHR. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act Guidelines (CEQA), using the criteria outlined in Section 5024.1 of the California Public Resources Code, and does not appear to be a historical resource for the purpose of CEQA.

Garret Root

Senior Architectural Historian

Phone: 916-754-4347

Garret.Root@stantec.com

Attachment: DPR-523 McKinley Park

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings _____
Review Code _____ Reviewer _____ Date

***Resource Name or #:** (Assigned by recorder) McKinley Park

P1. Other Identifier: _____

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Sacramento County
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

b. USGS 7.5' Quad Sacramento East, Calif. **Date** 1992 **T** 8N ; **R** 5E **Sec** M.D. **B.M.** 22

c. Address 601 Alhambra Boulevard and 3330 McKinley Boulevard City Sacramento, Calif. Zip 95816

d. UTM: (Give more than one for large and/or linear resources) mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
McKinley Park is located east of downtown Sacramento APN 003-0010-002-000 and 004-0221-001-0000

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

McKinley Park is a 36-acre parcel in East Sacramento, bordered by McKinley Boulevard to the north, 33rd Street to the east, H Street to the south, and Alhambra Boulevard to the west (**Photograph 1**). There is also a portion of the park on the east side across 33rd Street at 3330 McKinley Boulevard, often called the "panhandle" (**Photograph 2**). The park consists of four discernable resource categories: buildings, landscape features, athletic facilities, and picnic resources. Within these categories are 20 individual components that make up the park. The Florence Turton Clunie Memorial Library was recorded in 1981 and the Sherpard Garden and Arts Center in 2017. These two buildings are not re-inventoried on this form. The Rose Garden was inventoried individually in 2009 and is not updated herein. There are two buildings that are over 50 years of age, and have not been inventoried previously, the former Garden Club and a bathroom that are inventoried on this form. For a detailed look of all the resources located within the park see the location map and description on the following pages (see Continuation Sheet).

***P3b.Resource Attributes:** (List attributes and codes) HP31—Urban Open Space

***P4. Resources Present:** ☐ Building ☐Structure ☐ Object ☒Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #)
Photograph 1: McKinley Park with Clunie Center and pool and McKinley Playground, camera facing northwest, October 3, 2017.

***P6. Date Constructed/Age and Source:**
☒ Historic ☐ Prehistoric ☐ Both
1871, Sacramento County Recorder

***P7. Owner and Address:**
City of Sacramento Department of Parks and Recreation
915 I Street, 3rd Floor
Sacramento, CA 95814

***P8. Recorded by:** (Name, affiliation, and address)
Garret Root and Rebecca Riggs
Stantec, Inc.
555 Capitol Mall, Suite 650
Sacramento, CA 95814

***P9. Date Recorded:** October 3, 2017

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation**: (Cite survey report and other sources, or enter "none.") Stantec Consulting Services Inc., McKinley Water Vault Project, Draft Environmental Impact Report, Sacramento, Ca, November 2017

***Attachments:** ☐NONE ☐Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) McKinley Park ***NRHP Status Code** 6Z

B1. Historic Name: East Park

B2. Common Name: McKinley Park

B3. Original Use: Recreational Park B4. Present Use: Recreational Park

***B5. Architectural Style:** N/A

***B6. Construction History:** (Construction date, alterations, and date of alterations) The Sacramento City Railway Company purchased the land for East Park in 1871 turning it into the largest recreational area in Sacramento, in 1902 it was purchased by the City of Sacramento, for a complete history see context below.

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____

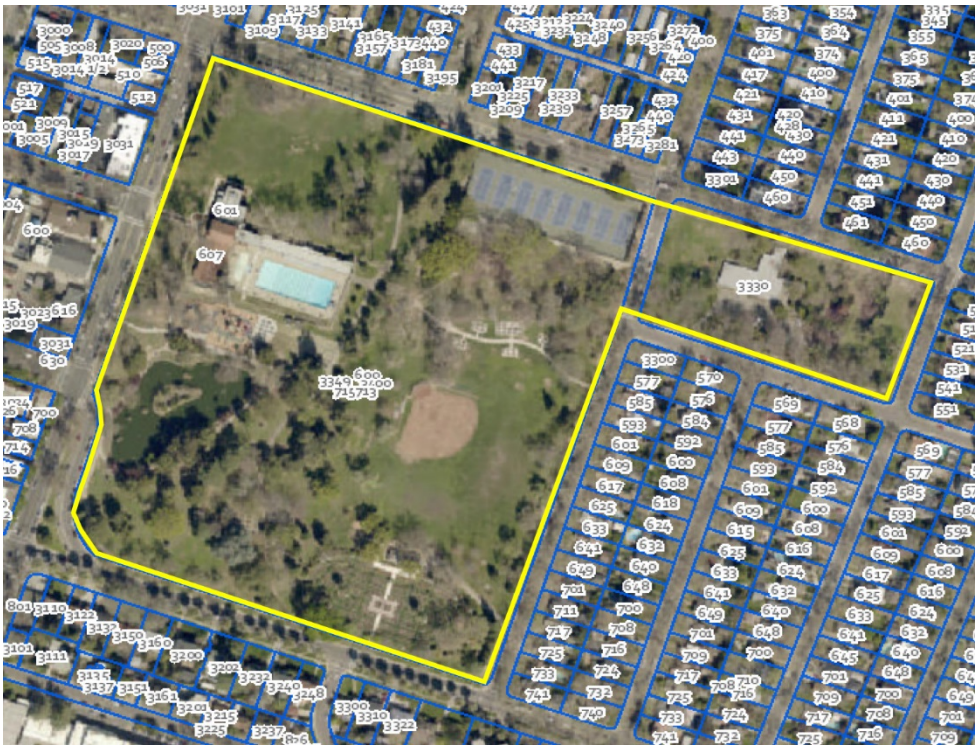
***B8. Related Features:** none

B9a. Architect: Sacramento City Railway Company b. Builder:

***B10. Significance: Theme** n/a **Area** n/a

Period of Significance n/a **Property Type** n/a **Applicable Criteria** n/a (Discuss importance in terms of historical or architectural

This intensive survey and evaluation finds that McKinley Park does not appear to meet the criteria for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) because of a lack of integrity. The property has been evaluated in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act Guidelines (CEQA), using the criteria outlined in Section 5024.1 of the California Public Resources Code and does not appear to be a historical resource for the purpose of CEQA (see continuation sheet).



B11. Additional Resource Attributes: (List attributes and codes) _____

***B12. References:** See footnotes

B13. Remarks:

***B14. Evaluator:** Garret Root and Rebecca Riggs, Stantec Inc.

***Date of Evaluation:** October 2017

This space reserved for official comments.

P3a. Description (Continued):

The park consists of a mixture of resources constructed and modified since 1871. Landscape features include a wide variety of trees located throughout the park (**Photograph 3**). One of the landscape features includes a row of palm trees which originally made up a palm lined streetcar entrance. The rail line connected the club house (no longer extant) with the H and 31st Street (**Photograph 4**). Today many the palms are gone with only short segments still discernable. Other hardscape features include a series of interconnected concrete sidewalks with large sections of open grass added in the latter part of the 20th century (**Photograph 5**). For the purposes of this reporting effort the distinctive resources of the park have been numbered 1 through 20. Resource 1 and 2 are the two buildings of historic age that have not been inventoried previously.

Resource 1 is a building located north of the Frederick N. Evans Memorial Rose Garden, near H Street. The building has a T shaped plan constructed on a board formed concrete curb foundation. The building has a cross-hipped, metal seam roof with moderate pitch, boxed eaves with a narrow overhang and wood fascia (**Photograph 6**). Intermittent rain gutters with metal downspouts are attached to sections of fascia. building exterior is clad inboard and batten siding. The main entrance, located on the south side with a secondary entrance on the east side, both are solid metal doors with simple wood surrounds. Fenestration consists of the following original and modern replacement window types: sliding glass, three over six vinyl frame windows with faux muntins; wood frame hopper windows; and one over one wood sash windows. All the windows have simple wood casements while the wood sash windows have a wood sill. All the windows are protected by metal security screens over them. The windows on the north side have security screens approximately ten inches away from the windows (**Photograph 7**). A brick chimney is located on the north side of the building. Metal double doors on the west side provide access to a crawl space.

Resource 2 is a restroom located between the Clunie Pool and the Cole Baseball Field, with the pool to the west and the baseball field to the southeast. It has a rectangular plan and is constructed on a poured concrete slab foundation. It has a moderate pitch, saltbox, metal seam roof. It is of brick frame construction and has an interior brick chimney on the south side (**Photograph 8**). There are two entrances to the building, one on the southwest side for the women's restroom and one on the northeast side for the men's restroom. The entrances are structural brick with a thick wood header; both have metal security gates. Windows and a large opening on the north side have been filled into with a different age brick. The large opening on the north side has a wide header and brick headers indicate locations of former windows. Metal screens provide venting to the bathrooms (**Photograph 9**).

For Resources 1 through 20 please refer to the table below for brief descriptions and, a map (**Figure 1**) of locational information. The map depicts the Resource Categories with corresponding colors (buildings=yellow, athletic=green, landscape=blue, picnic=red).

Resource Number	Resource Category	Description
1	Building	See above
2	Building	See above

3	Athletic	The Cole Baseball field is located along 33rd Street north of the Rose Garden. It consists of a wood and chain link backstop, a grass baseball diamond and steel frame bleachers with wood seats (**Photograph 10** and **11**).
4	Athletic	There are six horseshoe pits located west of the baseball diamond. They consist of sand pits, steel pipes and wood backstops (**Photograph 12**)
5	Landscape	The Frederick N. Evans Memorial Rose Garden was recorded in 2009 and appears as recorded (**Photograph 13**).
6	Picnic	There are seven metal picnic tables located west of the Frederick N. Evans Memorial Rose Garden. Four are set into concrete pads and three are movable (**Photograph 14**).
7	Athletic	Enveloping the park on all sides is a track. It measures 1.1 miles in length, is approximately 8 feet wide and composed of decomposed granite running surface (**Photograph 15 and 16**).
8	Landscape	The McKinley Park Pond is located along G and Alhambra Street on the western edge of the park (**Photograph 17**). It consists of a concrete walking way encircling the pond with an outlet at the southern end, a dirt island in the middle and rock water features (**Photograph 18**).
9	Athletic	A basketball court is located east of the playground and south of Clunie Library. It appears to have been recently resurfaced with new hoops (**Photograph 19**).
10	Building	Is a modern, prefabricated concrete, men and women's bathroom located south of the Clunie Pool (**Photograph 20**).
11	Picnic	A metal frame and hipped roof picnic shade structure east of the McKinley Playground (**Photograph 21**).
12	Landscape	A playground that depict elements of Sacramento landmarks including a trolley car, the Alhambra Theater, and the Tower Bridge (**Photograph 22**).
13	Building	The Florence Turton Clunie Memorial Library or Clunie Community Center, is located between the McKinley Playground and the soccer fields, with the play structure to the south and the soccer fields to the north. The T shaped building has a façade that faces west to Alhambra Boulevard, which is the main portion of the building (**Photograph 23**). It has three different wings and then stretches east into the park, where the pool is and where the façade faces north to the soccer fields. It was previously recorded in 1981 (**Photograph 24**).
14	Athletic	The soccer field is located at the northwest corner of the park, north of the Clunie Library (**Photograph 25**).
15	Athletic	A handball court consisting of a concrete foundation and wood wall is located at the southwest corner of the tennis courts along McKinley Boulevard (**Photograph 26**).

16	Athletic	Located at the northeast corner of the park are eight, modern tennis courts encircled by a high chain link fence and illuminated by stadium lighting (**Photograph 27**).
17	Athletic	There are no longer in use volleyball net poles south of the tennis courts (**Photograph 28**).
18	Building	The tennis building is located near the northeast corner of the park and directly south of the tennis courts (**Photograph 29**).
19	Picnic	Nine, stationary metal barbeque grills, 30 moveable metal picnic tables set on concrete pads, plastic trash receptacles and modern metal water fountains are located between Resource 2 and 33rd Street (**Photograph 30**).
20	Building	The Shepard Garden and Arts Building front McKinley Boulevard with a parking lot located along Park Way (**Photograph 31** and **32**). This building was inventoried in 2017 and is not recorded on this form.

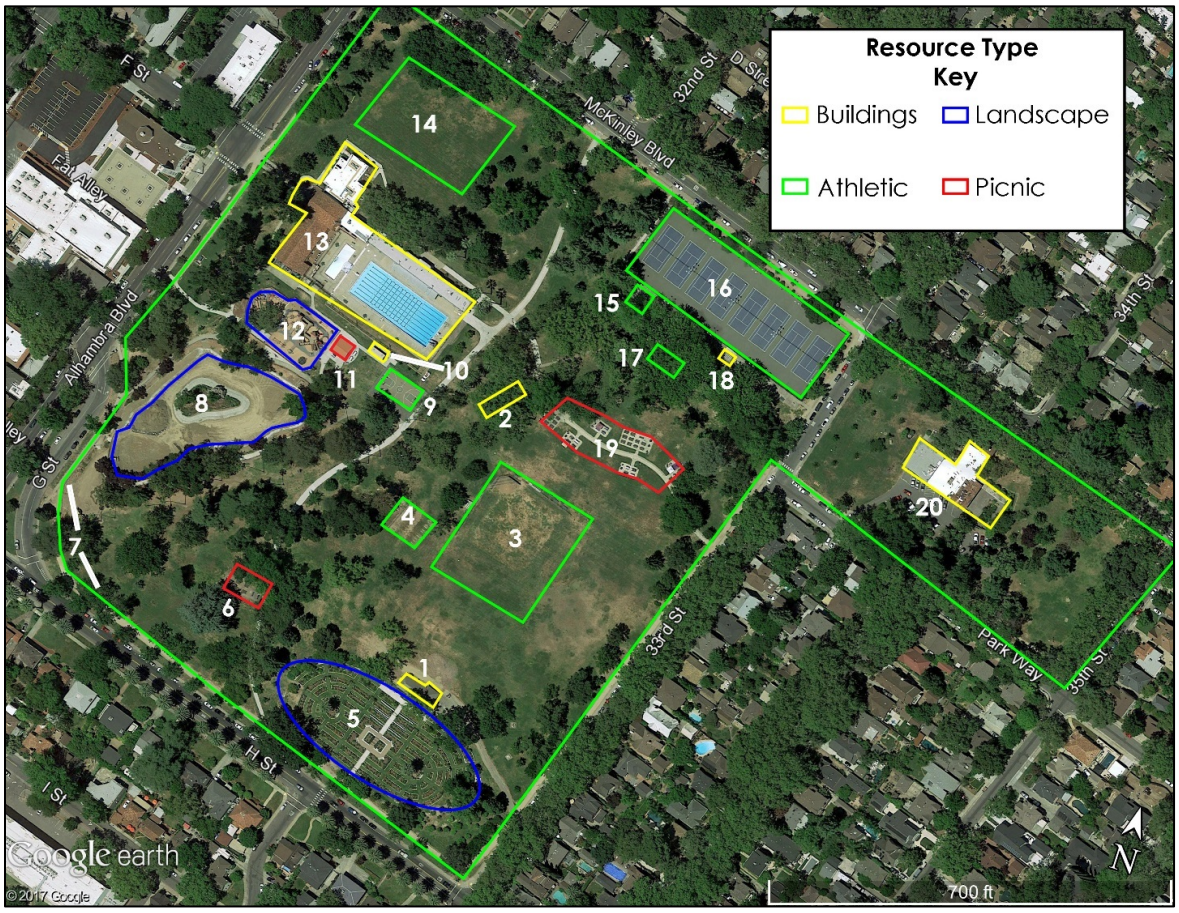


Figure 1. Location site map showing groupings of resources.

Historic Context

B10. Significance (Continued):

McKinley Park has undergone numerous changes, modifications and improvements in its 146-year history. When originally constructed in 1871 the park, then known as East Park was beyond the limits of the city. Built by a streetcar company to entice ridership of their line, the park quickly became a Sacramento resort destination for those hoping to escape for a day. However, the park's initial charm soon wore off and from the 1880s through the early 1900s the park continued to deteriorate. By the early 1900s new owners and reformers helped shape the design of the modern McKinley Park, renamed following President William McKinley's assassination. Major infrastructural upgrades occurred in the 1910s and into the 1920s which solidified the park's transformation. New buildings were constructed in the 1930s and the park continued to evolve throughout the twentieth century. While there are arguably important components of the park including the rose garden and Clunie Library, the park is a non-cohesive amalgam of changing park use ethos.

Park usage has changed dramatically in many ways while remaining fundamentally the same in others. While most modern parks no longer focus on amusements and live entertainment they almost all continue to have community collaboration and picnicking at their core. The transportation means for getting to Sacramento's parks have altered parks use and interaction with the surrounding infrastructure. Further, starting in the 1910s and 1920s McKinley Park along with other Sacramento parks began constructing facilities to participate in specific sporting or athletic endeavors fundamentally altering parks use. Sacramento like other contemporaneously developed cities in California and across the United States saw the evolution of park spaces.

Early Sacramento Parks

Following the cessation of hostilities of the American Civil War, many American cities outside the southern United States, flourished economically. Americans in greater numbers had increased economic wealth and in many cases labor laws allowed for free time outside of work. 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. San Francisco is one of the best and earliest examples of having parks within the city grid.[1]

Utilizing the knowledge of parks within urban spaces Sacramento's grid was developed utilizing these ideals. John Sutter Jr., the primary driving force for the development of Sacramento, had the city laid in a grid pattern with spaces specifically for city plazas. Sutter. Jr. set aside ten blocks as plazas, nine of which 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. Alkali

[1] Michael Dean Patrick Kremer, "A Checkerboard Central City: A Historic Context of Sacramento's Public Squares" (master's thesis, California State University, Sacramento, 2012).

Flat Playfield is the tenth site which no longer exists (**Figure 2**). These publicly accessible plazas were not altered into parks. These plaza parks provided residents with publicly accessible spaces within an urban core. But 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.[2]

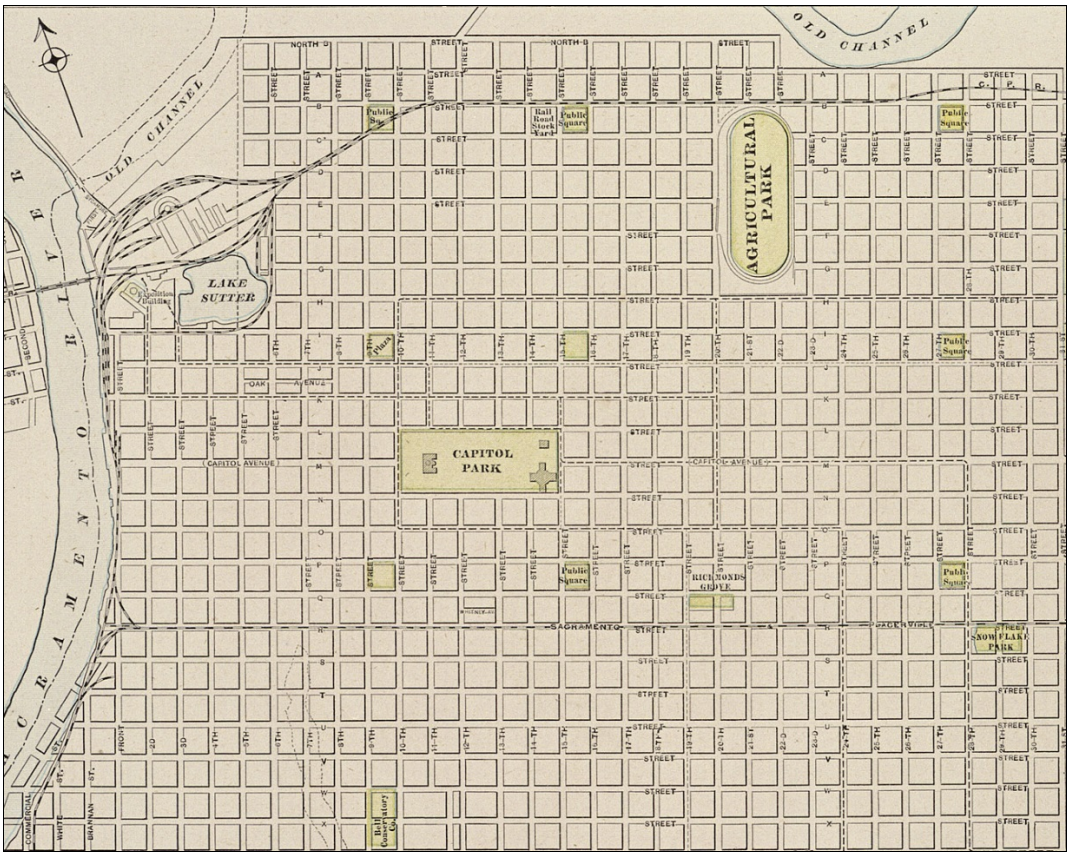


Figure 2. This map, while dating to 1895 depicts all of the city plazas in yellow.[3]

East Park Development

In December 1848, John Sutter Jr. and Sam Brannan hired topographical engineer William H. Warner to layout "Sacramento City." Named after the river and meant 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 area which would eventually become 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-

[2] Kremer, "A Checkerboard Central City, (master's thesis, California State University, Sacramento, 2012).
[3] "Official Map of Sacramento," (Sacramento: CA, 1895).

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. Notable houses, located along B Street included Tivoli, Muldrow, Smith, and Ballard, among others. B Street provided the most reliable access with bridges ferry crossings and bridges across the sloughs and forks. 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).[4]

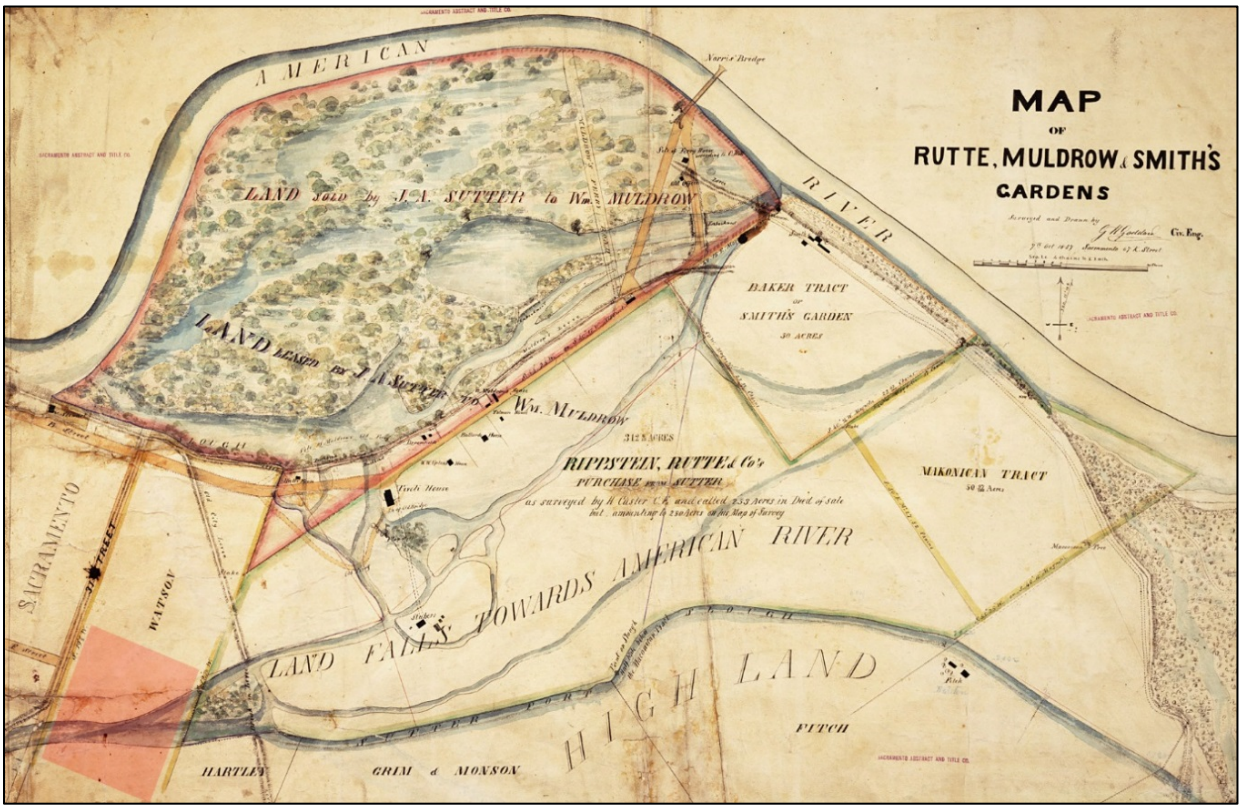


Figure 3. This 1857 map depicts what today is East Sacramento. The red box at the bottom left gives the approximate location of East Park (McKinley Park). Note Sutter Fort and Burns Slough cutting across the park property.[5]

In 1871, the Sacramento Street Railway Company initially purchased 10 acres on the outskirts of Sacramento, with neighboring landowners donating an additional 20 acres.[6] The company's President N.D. Thayer, oversaw construction of the privately-owned park, named East Park, as a resort-style park within reach of Sacramento. East Park, and later Oak Park, followed similar models of parks for profit, a sharp contrast to the city-owned green spaces and plazas within the main city grid. The plan called for a park full of amenities

[4] G H Gordon, "Map of Rutte, Muldrow & Smith's Gardens Surveyed and Drawn by G.H. Gordeno, Civil Engineer," (Sacramento, October 7, 1857).
[5] Gordon, "Map of Rutte, Muldrow & Smith's Gardens," (Sacramento, October 7, 1857).
[6] Sources also call the company City Street Railroad Company.

such as amusements, picnic grounds, and natural elements accessible, conveniently, by the company owned horse-drawn streetcars (also called an omnibus) (**Figure 4**). 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 at a cost of $10,000. The building, measuring 104 feet long by 54 feet wide had balconies and wide wrap around porches topped by a cupola. Within the building was a saloon, gymnasium, and a bowling alley. Other attractions included a shooting gallery and most notably a zoo animals with animals including deer, alligators, bears, a lion, eagles, pelicans, monkeys, racoons, and hyenas.[7]

Figure 4. This 1888 photograph shows a horse drawn streetcar on J Street between 27th and 28th Street with Sutter Fort central building in the background. This is not a streetcar operated by Sacramento Street Railway Company but is of a similar design.[8]

In addition, to the buildings and zoo attractions the railway company made multiple modifications to the landscape. 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 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

[7] "City Park," *Sacramento Daily Union,* May 30, 1871; "East Sacramento a Century Ago: As Reported in Newspapers of the Time," Golden Notes, Vol. 15, No. 1 (Sacramento Historical Society, October 1968); Kerry C. Phillips, "McKinley Park," *Sacramento Park Neighborhoods* (Sacramento, CA: Stonebridge Properties, LLC., 2009), 49-59; "Sacramento Rose Garden History," http://www.mckinleyparkcenter.org/mckinley-park-rose-garden/ (Accessed November 7, 2017); Chirsty Anderson and William Mahan, "History of McKinley Park," *Sacramento History Journal* III (Winter and Spring 2003): 14, 29; "Garland Established the Sacramento City Railway Company, With a Lot of Opposition," *Sacramento Daily Union*, January 14, 1888..

[8] Sacramento Room Photography Collection, "J Street between 27th and 28th Streets," 1888, (http://cdm16362.contentdm.oclc.org/cdm/singleitem/collection/p15248coll1/id/2425/rec/113) accessed November 8, 2017).

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. [9]

The Sacramento Street Railway Company constructed East Park to promote their streetcar line. The original line extended from I Street, along Front Street to K, up K to 10th Street, along 10th to H Street and up H Street to the intersection of 31st Street (today Alhambra Boulevard) where the streetcar entered the park at a 45-degree angle. The horse drawn streetcars were pulled along a picturesque palm tree lined road to the clubhouse building, where the streetcar was turned around and taking back out the way it came. The streetcar company owned ten, two-horse double cars and advertised East Park as the crown jewel of their enterprise. East Park enthusiasm remained high for several years, however by the end of the decade costs, streetcar woes, and maintenance began taking its toll.[10]

The streetcar company maintained the park through the 1870s. The company sponsored concerts every Sunday on their outdoor stage located adjacent to the clubhouse. In 1872, they hosted the first of many dances, which in the late 1800s proved to be a large draw to the park. The park was also home to many tournaments, seasonal festivals, and agricultural demonstrations. But it was large family and organizational picnics that drew the largest, steady crowds to East Park. In 1873, the company capitalized on the picnicking success by adding an addition 14.5 acres to the park, an area known as the panhandle (today home to the Shepard Garden and Arts Center). This area was used specifically for large picnics, typically on Sunday's as much of the population labored six days a week. Also in 1873, the first baseball field was added along with additional animal attractions.[11]

By the mid-1870s, the park's success as an affordable escape made it a working-class destination, which in turn drove down ridership from more affluent citizens. This decrease led the company to abandon running cars to the park expect on Sundays or for large, paid-picnics. All other days the streetcar company suspended service at the entrance to the Agriculture Park (20th Street and H Street) as the cost of operating the line all the way to East Park was more expensive than income brought in. In 1876 N.D. Thayer sold his controlling shares to W.L. Pritchard. In 1881, L. Lothhammer and G. Derman took over operation of East Park from the City Railway Company. 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 of the streetcar access brought a dramatic decline to the park. Decrease in revenue was compounded by multiple changes of ownership. In 1885, Pritchard who had to controlling stake in the City Railway Company shares to R.S. Carey and Sons and sold his shares of East Park to Thomas Clunie (lawyer for the Sacramento City Railway Company, owner of the Clunie Hotel and Opera House) and Albert Gallatian

[9] Lance Armstrong, "East Sacramento's McKinley Park has rich heritage as East Park," *East Sacramento News* (April 21, 2011), 14-16; "East Sacramento a Century Ago," Golden Notes, (Sacramento Historical Society, October 1968).
[10] Armstrong, "East Sacramento's McKinley Park, 14-16; Kerry C. Phillips, "McKinley Park," *Sacramento Park Neighborhoods* (Sacramento, CA: Stonebridge Properties, LLC., 2009), 49-59; "Garland Established the Sacramento City Railway Company, With a Lot of Opposition," *Sacramento Daily Union*, January 14, 1888
[11] Armstrong, "East Sacramento's McKinley Park, 14-16; "East Sacramento a Century Ago," Golden Notes (Sacramento Historical Society, October 1968); Chirsty Anderson and William Mahan, "History of McKinley Park," *Sacramento History Journal* III (Winter and Spring 2003): 14.

(wealthy merchant who would own the Folsom Water Power Company in the 1890s, forerunner to the Sacramento Electric Light and Power Company), who in turn created the East Park Association.[12]

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 reinvigorate the park with the addition of a toboggan (also called an aerial railway). In 1889, the Sacramento Street Railway Company had purchased several acres in neighboring Oak Park with the intention of building on the early successes of East Park. Using the same model, a resort park built outside Sacramento city limits with streetcar connections, Sacramento Street Railway Company constructed Joyland. An amusement park with rollercoasters and a variety of rides and attractions. Building off this success the East Park Association constructed the wooden toboggan rollercoaster in 1895. 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 (**Figure 5**). Other attractions included hot air balloon ascensions with parachute jumps and a bowling alley.[13]

One of the most notable changes was the reintroduction of streetcar access to the park, which 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 who sought to bring electricity from Folsom Powerhouse to Sacramento for use in an electric streetcar system. The first electric streetcar started use in 1890 but it was the introduction of reliable, high voltage electricity from Folsom which truly boosted streetcar use. 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 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 (**Figure 6**). [14]

[12] "Garland Established the Sacramento City Railway Company," *Sacramento Daily Union*, January 14, 1888; "L. Lothhammers and G. Derman are the new operators of East Park," *The Record Union,* July 13, 1881; "Notice to the Public," *The Record Union,* July 13, 1883.

[13] Anderson and Mahan, "History of McKinley Park," 17; "Aerial Railway at East Park," *Sacramento Record-Union,* September 9, 1895; "Parachute jump," *Sacramento Record-Union,* Mary 23 1897.

[14]Matt Nauman, "All Aboard, the Short History of PG&E Streetcars," *PG&E Currents,* http://www.pgecurrents.com/2014/07/21/all-aboard-the-short-history-of-pge-streetcars/ (accessed November 8, 2017).

Figure 5. This 1899 photograph shows a three-gentleman sitting in a toboggan car in East Park.[15]

Figure 6. This ca. 1906 photograph several people standing in front of a PG&E streetcar with the East Park clubhouse behind.[16]

[15] Center for Sacramento History, "Toboggan ride, unknown location," 1899, accessed November 8, 2017.
[16] Center for Sacramento History, "PG&E Streetcar #115," Eugene Hepting Collection, 1900-1910, (http://sacramento.pastperfectonline.com/photo/4D1ED6B0-6A5F-49E3-B59C-730309043338) accessed November 8, 2017).

By 1900, increased maintenance costs, poor road conditions, infrequent streetcar access, and unhealthy conditions of Burns Slough accounted for East Park's decline. The dirt streets leading to the park were in constant need of repair and clogged with horse manure. The slough, which ran through the park resembled a swamp with stagnate water and a breeding ground for mosquitos. 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.[17]

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. Constructed by the Sacramento high school men's running team in April 1906 it was regarded as one of the best running tracks in Northern California. However, within two years the track was abandoned by the running team, as a new track was constructed at the high school on 18th and K Streets, and the track was converted to a cycling track. The Capital City Wheelman took ownership of the track adding raised curves and embankments. 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. When completed in 1910 the playground included five merry-go-rounds, pony carts, candy booths, and other concession stands.[18]

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 was a solution for the constant flooding and health threats caused by Burns Slough. In 1911, Sacramento City Engineer Randle proposed Burns Slough by 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. Addition in the mid-1910s the streetcar route through McKinley Park and flanked by palm trees appears to have been abandoned.[19]

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[17] Anderson and Mahan, "History of McKinley Park," 21-22; Park Report, McKinley Park Board of Directors, 1921; City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records.

[18] "Athletes are at Work," *Sacramento Record-Union,* April 8, 1906; "Track converted," *Sacramento Record-Union,* 1908; "Northern Electric rail extend to East Park," *Sacramento Record-Union*, 1907; "Playground opened," *Sacramento Record-Union*, 1909; Anderson and Mahan, "History of McKinley Park," 23-25.

[19] City of Sacramento, "Annexation History," https://www.cityofsacramento.org/-/media/Corporate/Files/CDD/

Streetcars remained important for local transportation needs and continued to service the park. However, by the 1910s automobiles had become increasingly popular as had tourism. In 1916, an auto camp, the first in California, was established in the panhandle section of McKinley park. Other park improvements included remodel of the clubhouse in 1912 and 1919, construction of a wading pool and baseball diamond in 1914, construction of three tennis courts, a baseball backstop, and bleachers in 1915, two croquet courts in 1917 rounded out the decade and marked the most serious improvement to the park since 1871. These park improvements were made possible by the piping of Burns Slough. This infrastructure upgrade not only fundamentally altered the park it also allowed for the development of East Sacramento. Prior to annexation and containment of Burns Slough, the residential development remained sparse. Residential developers such as Wright and Kimbrough had purchased swaths of land but had not yet developed subdivisions (**Figure 7**). This would soon change by the 1920s as Sacramento continued its outward expansion.[20]

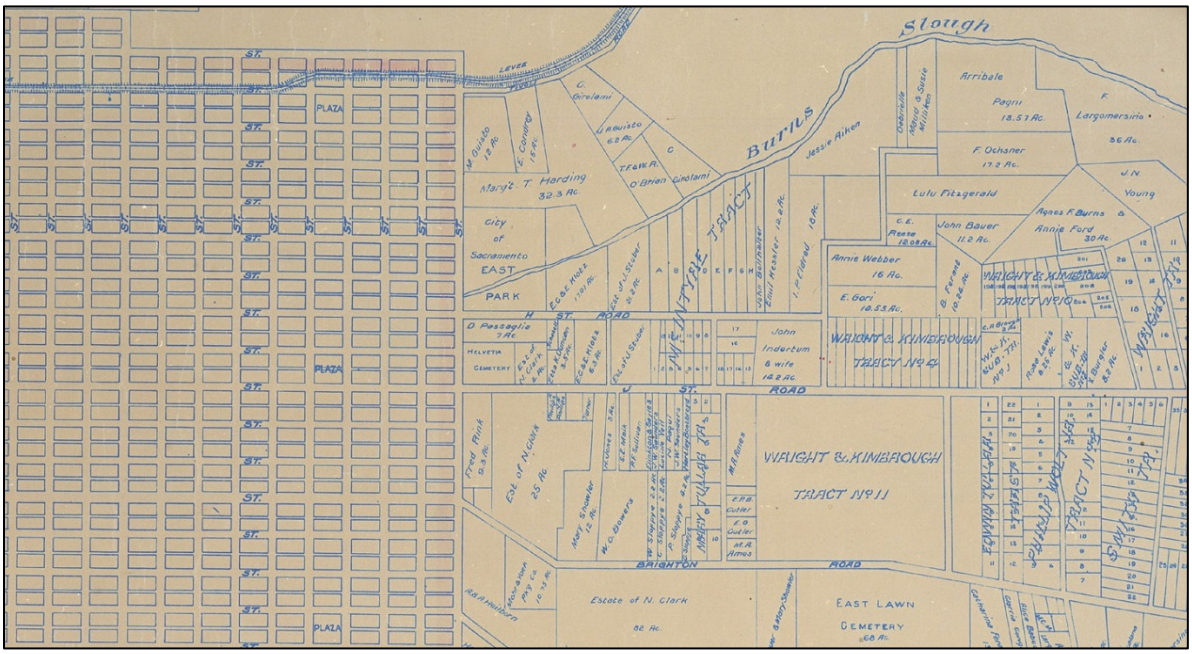

Figure 7. 1906 map showing the residential development of East Sacramento around McKinley Park (East Park).[21]

A multitude of a factors led to the development of East Sacramento in the 1910s including streetcar connections, piping of Burns Slough, annexation, and culture shift embracing separation of residential neighborhoods from rapidly industrializing city cores. Sacramento's suburbs began with the streetcar operations, but the 1920s saw most residents turning to automobiles for their commuting. Sacramento experience rapid growth until the 1930s, which picked up again after World War II. Jobs provided by the

Planning/Long-Range/New-Growth/annexhist.pdf?la=en (accessed November 12, 2017); "Drainage Canal is Problem for City," *Sacramento Record-Union,* 1911.

[20] "Drainage Canal is Problem for City," *Sacramento Record-Union,* 1911; "McKinley Park Burns Sewer Approved," *Sacramento Record-Union,* 1915; "Sacramento Rose Garden History," http://www.mckinleyparkcenter.org/mckinley-park-rose-garden/ (Accessed November 7, 2017); Park Report, McKinley Park Board of Directors, 1921; City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records.

[21] Punnett Brother, "Map of the City of Sacramento and Vicinity," (San Francisco: Punnett Brothers, 1906).

federal and state government led to a stable economy and steady growth of the middle class in Sacramento. The first housing development surrounding McKinley Park was surveyed in 1910, Casa Loma Terrace. Followed by Wright and Kimbrough's Tract 24 in 1913. However, population increases began in earnest following the end of World War I. Post-World War I developments included the Parkside Tract in 1922, the Ben Leonard Big Sic Company's Tract One in 1928 and Tract Two in 1929, and the eastern Parkside Tract in the early 1930 (**Figure 8**).[22]

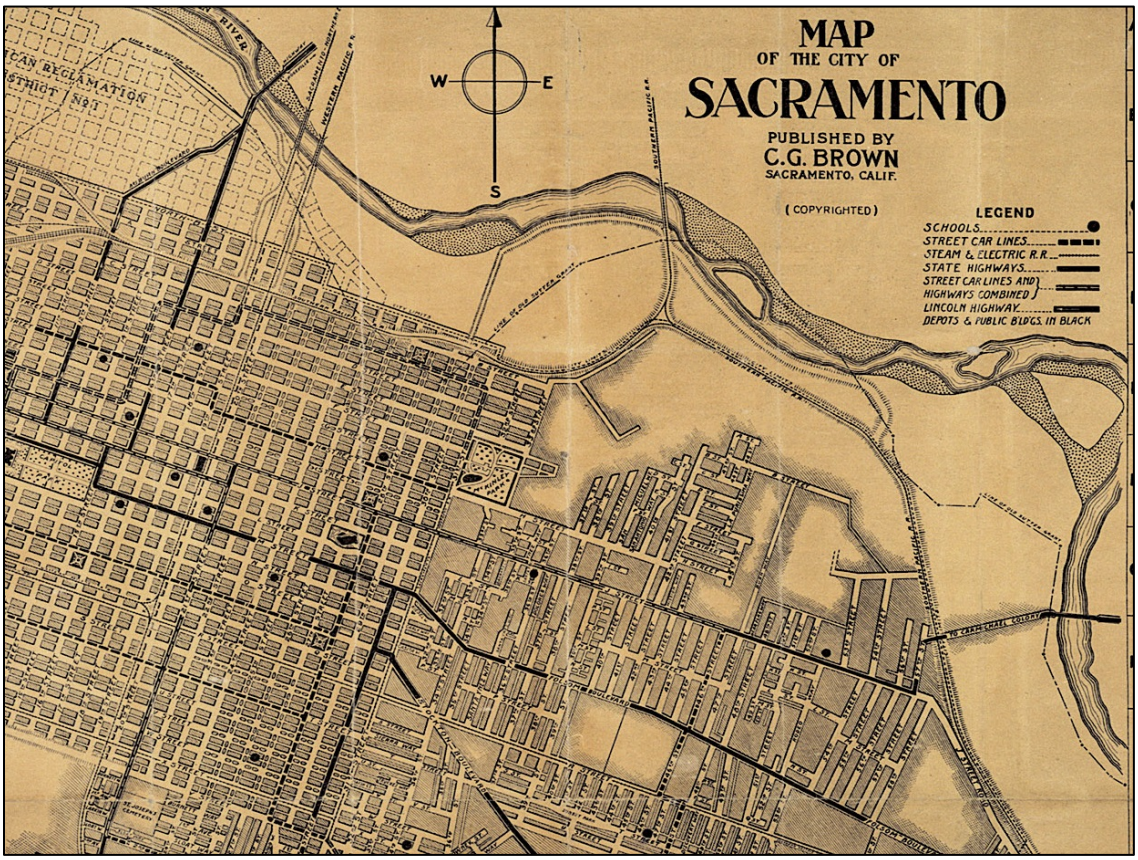

Figure 8. A 1923 map showing the residential development of East Sacramento around McKinley Park. Not the streetcars no longer bisect the park[23]

As many companies scrambled to develop sections of East Sacramento no formal plan was developed to handle sewage. Each company created their own sewage system, coupled with the topography, and multiple channelized and piped slough's the area would continuously struggle with water and wastewater management. Despite this, McKinley Park and the homes surrounding developed into a vibrant and often affluent area. The architecture of East Sacramento houses in exhibit Craftsman and more notably, use of Period-Revival designs (Tudor, Colonial, and Spanish Colonial Revival). As East Sacramento expanded its

[22] Kerry C. Phillips, "McKinley Park," *Sacramento Park Neighborhoods* (Sacramento, CA: Stonebridge Properties, LLC., 2009), 49-59; Phillips, "East Sacramento," 61-71; Sean McBride de Courcy, "McKinley Boulevard Tracts One & Two Historic District Survey" (master's thesis, California State University, Sacramento, 2010).
[23] C.G. Brown, "Map of the City of Sacramento," (Sacramento: C.G. Brown, 1923).

residential building stock many important industries including the American Can Company constructed in 1926, hospitals Mercy, Sutter General and Memorial, and in 1927 the Alhambra Theater. East Sacramento's rapid development coincided with the redevelopment of many key features of McKinley Park.[24]

McKinley Park Re-Envisioned

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 1922 and 1924 the city constructed more bleachers for use at the baseball field and added two more tennis courts, bringing the total to eight. In 1926, as the Alhambra Theater was under construction, 31st Street was renamed Alhambra Boulevard and modern streetlights installed from the theater location to the park. The following year ten horseshoe courts with electric lights were constructed in the middle of the park, in 1928 a volleyball court was constructed near the tennis courts and in 1929 electric lights were added to the tennis courts. From 1871 to 1926 East and McKinley Park housed animal attractions. However, a formal zoo was established in Land Park in 1927, all the animals that remained at McKinley were transferred.[25]

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 architects, began shaping the garden into "a showplace of the city park system." Utilizing the existing track oval shape, Evans set about designing the garden which initially comprised of 400 roses, increasing to over 900 by 1940. Research indicates the garden building (Resources 1) was constructed at some point between 1929 and 1936. In 1930, Resource 2, 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 (**Figure 9**). 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. The building included a branch library and had a modern pool measuring 65 feet by 165 feet, a requirement for championship swimming (**Figure 10**).[26]

[24] Phillips, "East Sacramento," 61-71.

[25] Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records; Anderson and Mahan, "History of McKinley Park," 14, 29.

[26] "Sacramento Rose Garden History," http://www.mckinleyparkcenter.org/mckinley-park-rose-garden/ (Accessed November 7, 2017); City of Sacramento, Building Division, 330 McKinley Blvd, F132-135, June 1930; WAC Corp, *Sacramento County Aerial Photograph*, Eugene, OR: WAC Corp, 1928; Center for Sacramento History, "Rose Garden," Bob McCabe Collection, 2001/057215, 1936; Sacramento City Parks, "Dedication Ceremonies for the Florence Turton Clunie Memorial Pool," 1936; City of Sacramento, Sacramento City Council, "Resolution No. 134," March 19, 1936; City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records.

Figure 9. The original park club house, constructed in 1871 and replaced by the current building Resource 13, in 1936. Also note the dance floor and the basketball court beyond.[27]

Figure 10. The Clunie Memorial pool and Clubhouse in 1938.[28]

[27] Center for Sacramento History, "McKinley Park Clubhouse," Hepting Collection, 1922, (http://sacramento.pastperfectonline.com/photo/BE2A0DDD-D648-46CE-ACBA-250732802834) accessed November 8, 2017).
[28] California State Library, "Clunie Memorial Pool and Clubhouse,"1938 (accessed November 8, 2017).

The new building fundamentally severed the connection from East Park. The original building housed a saloon, the park contained animals, and a shooting gallery, it had an aerial tramway, a running track and many other resources. By the mid-1930s the park had official become a neighborhood park. Construction of the pool also 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 (**Figure 11**). In 1937, the parks department added new play equipment to the playground and a new basketball court was added. In 1940, the Works Progress Administration added the first sidewalks to envelop the park perimeter. The park remained largely unchanged until the early 1950s.[29]

Figure 11. The former streetcar entrance in 1932 (left) and in 1940 (right). Today only a small handful of trees remain[30]

In postwar United States cars played an ever-increasing role in Americans day to day lives. In 1950 US car manufacturers produced eight million cars, by 1958 there were 67 million cars registered in the United States. This compounded traffic in much of the United States, California, and Sacramento as existing

[29] Sacramento Public Library History Room, "McKinley Park," 1932, (http://cdm16362.contentdm.oclc.org/cdm/singleitem/collection/p15248coll1/id/3308/rec/6) accessed November 8, 2017); Center for Sacramento History, "McKinley Park,"1940 (accessed November 8, 2017); City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records; Anderson and Mahan, "History of McKinley Park," 34.

[30] Sacramento Public Library History Room, "McKinley Park," 1932, (http://cdm16362.contentdm.oclc.org/cdm/singleitem/collection/p15248coll1/id/3308/rec/6) accessed November 8, 2017); Center for Sacramento History, "McKinley Park,"1940 (accessed November 8, 2017).

transportation infrastructure proved ill-equipped to handle this automobile influx. While, subdivisions constructed in the 1950s and beyond were designed with automobiles in mind, neighborhoods developed before the war like East Sacramento faced increasing frustration over traffic. At McKinley Park this was seen most notably at the intersection of Alhambra and H Street. Traffic Engineer D.J. Faustman put forth a plan to alleviate the corner congestion by rerouting westbound H Street traffic to G Street via a new road that would cut the corner of McKinley Park. City council approved the plan in 1953, amounting to a no longer square park.[31]

Additional alterations in the 1950s-included construction of a new garden center. Rose Garden popularity resulted in the community outgrowing the small Sacramento Garden Club building (Resource 1). In 1954, 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 4 years later by contractor Beals and Poor at a cost of $119,280 dollars with a parking lot added in 1971. Throughout the 1960s numerous changes were made including construction of a series of new concrete walkways in 1963 and 1964, interior improvements in Clunie, refurbishment of some of the tennis courts, and a new chlorine system for the pool in 1964. In 1968, an addition was made to Resource 1, increasing the building square footage, more concrete walkways were added, and tennis courts continued refurbishment at a cost of $129,000 dollars. Maintenance continued into the 1970s with the replacement of all electric lighting at the tennis courts in 1975 and resurfacing in 1977 and new playground equipment in 1977.[32]

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 with 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 2004, numerous upgrades occurred including, construction of a restroom and concession stand, new walkways, landscaping, and perimeter lighting. This project was followed by installation of 15 custom designed steel arbors in the rose garden, replacing damaged pipe arbors. In 2011, Clunie was under threat of closing but community efforts ensured it would remain open in addition the Rose Garden was restored in 2012. 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.[33]

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[31] Keight Reid, "Happy Days – For Petroleum marketers, the 1950s lived up to the nostalgia," *National Petroleum News* (June 2004): 24-25; City of Sacramento, City Council Meeting Minutes, July 2, 1953, line 950.

[32] City of Sacramento, "Resolution No. 629," Sacramento City Council, February 18, 1954; City of Sacramento, Building Division, F622-639," Permit No 7935; City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records; City of Sacramento, "Acquisition and Development Costs: McKinley Park," City of Sacramento, Records; Anderson and Mahan, "History of McKinley Park," 36.

[33] City of Sacramento, Department of Public Works, Engineering Division, "Improvements at McKinley Park – Project Approval and Bid Advertisement," Approved by City Council May 21, 1987; City of Sacramento, "Project Number LE16," Sacramento City Council, Council Contract No CO89041August 21, 1990; Sacramento Public Library History Room, "McKinley Park, Sacramento," 1920 http://cdm16362.contentdm.oclc.org/cdm/singleitem/collection/p15248

Evaluation

McKinley Park has never been inventoried or evaluated as a resource in its entirety. In 1981, the Clunie Memorial Pool and Club House was recorded but not evaluated for the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or for the Sacramento Register of Historic and Cultural Resources (Sacramento Register) (see appended report).[34] This recordation effort did not update Clunie Memorial Pool and Club House nor does it evaluate individually for the NRHP, CRHR, or Sacramento Register. In 2009, the Rose Garden was inventoried and determined eligible as a landmark for the Sacramento Register (see attached).[35] Further, the 2009 report suggests McKinley Park could be eligible as a historic district. However, the 2009 recordation did not formally inventory the park nor did it develop a historic context or discuss integrity for which the park could be formally evaluated. In 2017, the Shepard Garden and Arts Center was presumably inventoried and evaluated as part of the City of Sacramento's Midcentury Modern Historic Context development which included recordation of several key midcentury buildings.[36] This recordation effort formally inventoried Resource 1 (the former rose garden building) and Resource 2 (the comfort station) as they were the two buildings not previously inventoried. This study finds McKinley Park lacks sufficient integrity to convey significance as property for the CRHR and for the purposes of CEQA. This study did not evaluate the park for the NRHP as there is no Federal nexus, it did not assess individual buildings eligibility bur rather studied the park as one property, and lastly this study does not assess McKinley Park eligibility as a potential a landmark for the Sacramento Register.

The 36-acre, McKinley Park is recommended not eligible for listing in the CRHR under Criterion 1 as it does not represent any clear them of park development. East Park was established as a destination draw for Sacramento residents to escape the city. It was a marketing ploy to increase streetcar ridership, a model replicated years later in Oak Park. The venture proved unsustainable as ridership decreased and the park declined into the 1890s. In 1902, following the assassination of President William McKinley, East Park was purchased by the city of Sacramento and renamed McKinley Park. The park's role began to shift from amusement park to neighborhood park. The park's role within Sacramento has constantly evolved to meet the needs of the community. The park has played a role as a meeting space, however it does not rise to a level of importance within the context of California. Further, as explained below the park has insufficient integrity to convey significance to any discernable period. The park did not contribute to the residential development of East Sacramento. Despite streetcar connection residential development remained low from 1871 until 1911, when East Sacrament was annexed. Following annexation city infrastructure such as sewer

coll2/id/1319/rec/33 (accessed November 7, 2017); City of Sacramento, "Establish a new capital improvement project," Sacramento City Council, January 5, 2004; City of Sacramento, "Resolution No 2006-678," Sacramento City Council, September 12, 2006; City of Sacramento, "Appropriate Fencing for McKinley Park Playground Area Restroom," L19137500, Sacramento City Council, Resolution No. 2014-0110, May 8, 2014; Cecily Hastings, "Worth Saving? Act Now; the future of Clunie Center and McKinley Library is at stake," *Inside East Sacramento* (Sacramento, CA: Inside Publications, December 2011), 27.

[34] Sacramento City Planning Department, "Historic Resources Inventory McKinley Library/Clunie Clubhouse," Recorded September 28, 1982.

[35] Paula J. Boghosian, Historic Environment Consultants, "McKinley Park Rose Garden – Evaluation of Signifigance," 2009.

[36] Stantec Architectural Historian Garret Root contacted Sacramento Preservation Director Carson Anderson via email and phone on October 17, 2017. As of November 13, 2017, no response was ever received from the city regarding the status of the Shepard Garden and Arts Center's status.

upgrades, road improvements and most importantly piping of Burns Slough amounted to the growth of East Sacramento in the late 1910s and 1920s. By the 1930s the park had shifted to a neighborhood park, old amusements were razed and athletic facilities took their place. This trend is representative of efforts across Sacramento and the state and McKinley Park does not convey exception significance in the development as a neighborhood park. Lastly, the numerous alterations and modifications prevent it from conveying significance to any potential period of significance. It is not eligible as it has not contributed to state history in a significant fashion.

There is no evidence that McKinley Park has any important association with any person or persons who made significant contributions to history at the local, state, or national level. While the park has undoubtedly been connected to many important Californians and Sacramento residents including, ND Thayer, Albert Gallatian, and Thomas and Florence Clunie the park does not convey their importance in local history. Both Thayer and Gallatian owned the park but their primary association was with the streetcar system which are no longer present. Further Thomas Clunie ushered the park from a private streetcar owned venture to a public, city owned institution however this is of minor importance to his contributions to Sacramento when compared to his hotel or opera house. Last Florence Clunie is intrinsically linked to the building that bears her name however, her association is only with money donated to the city after her passing. Her association facilitated construction of a new clubhouse but she does not have any association with the rest of the park. The park is not recommended eligible under CRHR Criterion 2.

McKinley Park is recommended not eligible for the CRHR Criterion 3 because it is not an important example of any type, period, or method of construction and it does not represent the important work of a master architect or engineer. The park was developed by a streetcar company and has undergone numerous alteration since first conceived in 1871. They park does not have a unified plan or design, it has been modified throughout time to fit the changing needs of the population transitioning from amusement to athletic uses. Further the landscape features have been altered extensively. While some of the buildings and rose garden located within the park have potential for individual eligibility as the work of a master architect their potential eligibilities have a range of period of significance and does not represent the park as a whole.

McKinley Park is recommended not eligible as a source, or likely source, of important information regarding history, building materials, construction techniques, or advancements in park design that would be deemed significant under CRHR Criterion 4.

In addition to the general lack of significance, McKinley Park has lost a significant amount of integrity as it has been continuously modified since first established in 1871. As discussed above, and summarized in the alterations table below, the park has undergone numerous changes. These changes result in an inconsistent development history that prevents establishment of a period of significance. While McKinley Park retains integrity of location as it has not been moved and association as it is still a part of East Sacramento it has lost its integrity of design, setting, materials, workmanship, and feeling through numerous additions, modifications, and alterations as noted below.

Resource Name	Built Date	Date Razed	Comments
Saloon/clubhouse	1871	1936	Remodeled in 1912. Remodeled in 1919. Replaced by the Clunie Memorial Pool and Club House in 1936.

Stage	1871	1936	Replaced by the Clunie Memorial Pool and Club House in 1936.
Zoo	1871	1927	Bears, deer, racoons, hyenas, alligators, lion, monkeys etc. Moved to new zoo in Land Park in 1927.
Shooting gallery	1871	Ca. 1882	No more mention in the newspaper
Irrigation Water Tank	1871	Ca. 1912	Much of the water and irrigation issues solved following channelization of Burns Slough.
Picnic grounds	1871		Modified throughout the park history, picnic benches added, removed, and replaced. In 1987 construct new concrete pad, barbecue pits, sink and drinking fountains.
Fish Ponds	1871	1912	Modified in 1912 with conversion of Burns Slough to an underground pipe.
Swings	1871	1910	Replaced by first playground
Sacramento City Railway	1871	1883	Ten, two-horse double cars. Ceased operation to the park.
Bowling Alley	1871	Ca. 1897	No more mention in the newspaper
Original Park Boundary	1871	1953	The original park boundary between H and 33rd Street and Alhambra and McKinley Boulevard remained unaltered until 1953 with the reroute of G Street at Alhambra and H Street.
Burns Slough		1915	routed to underground sewer pipe
Panhandle	1873		Panhandle section added to the park. Originally used for picnics, converted to an Auto Camp in 1913, 1958 Garden and Arts Center constructed, 1971 parking lot added.
Toboggan track	1895	Ca. 1900	Photographed in 1899, no more mention of it in the newspaper.
1902 City of Sacramento purchases the park, renamed McKinley Park			
Electric Streetcar	Ca. 1890	Ca. 1915	Streetcar continue running to the park until 1947 but stopped accessing the park via Palm Drive around 1915. Roadbed replaced with grass by 1940.
Running Track	1906	1908	Running track established near intersection of H and 33rd Street.
Bicycle Track	1908	1928	Modify abandoned running track for use by bicycles. Include adding embankment turns.
Playground	1910	1937	New equipment added in 1919.
McKinley Pond	1915		Modified in 1928 as an open pond. 1930 featured lily pads. 1961 open pond, no lily pads. In 1996 an island was added at the park for waterfowl.
Wading Pool	1914	1936	Removed when Clunie Pool constructed
Baseball diamond	1914		Bleachers and a backstop added in 1915. Additional bleachers added in 1922. Right and Left field fence line removed by 1952.

			Wood backstop removed and replaced with chain link in ca. 1952.
Tennis Courts	1915		First three tennis courts constructed. Three added in 1918, two added in 1924. 1929 add lights for three tennis courts. 1932 more lights added. 1975 lighting upgraded and added to all 8 courts. All courts resurfaced in 1977. New lights added in 2004.
Auto Camp	1916	1923	In the panhandle, not present on 1928 aerial.
Croquet Courts	1917	Ca. 1950	2 courts, shown in 1944 photograph, research did not indicate when removed.
Basketball Court	Ca. 1918	1936	Replaced by the Clunie Memorial Pool and Club House.
Horse Shoe Pits	1927		10 lighted horseshoe pits added.
Volleyball Courts	1928		Installed volleyball net poles, currently abandoned.
Rose Garden	1928		Designed by Frederick Evans. New awnings constructed in 2006, garden restored in 2012.
Restroom	1930		Designed by Charles Dean, had a concession stand, since removed.
Archery Range	1930	Ca. 1950	Never identified as a formal park feature.
Clunie Memorial Pool and Club House	1936		Designed by Harry Devine and Starks and Flanders wile constructed by Harry Robertson. Interior improvements and addition of a chlorine system in 1964. Awning for pool bleachers installed in 1970. 2011 funds raised to keep the center open and in use.
Sacramento Garden Club Building	1929-1936		Garden club moved in 1958. Addition to building made in 1968.
Playground	1937	1977	Replaced 1910 equipment.
Basketball Court	Ca. 1938		Basketball court modernized in 1971.
Concrete sidewalks	1940	1963	First sidewalks along the road added in 1940 as a WPA project.
Garden and Arts Center	1958		Parking lot added in 1971. Walkways installed in 1973
Sidewalks	1963		Replaced parts of 1940 sidewalk. Additions made in 1964, and 1968.
Playground	1977	2013	Replaced 1937 playground equipment
Running track	1990		Decomposed granite track around park perimeter.
Playground	2013		Replaced 1977 playground destroyed by arson.
Bathroom	2014		ADA bathroom

Photographs (Continued):

Photograph 2. McKinley Park panhandle note the running trail in the foreground with the Shepard Arts and Garden center in the background at left. Camera facing northwest, October 3, 2017.

Photograph 3. McKinley Park from 33rd Street, note tree diversity. Camera facing west, October 3, 2017.

Photograph 4. Remnants of "Palm Drive." Camera facing north, October 3, 2017.

Photograph 5. Hardscape features west of Clunie Memorial. Camera facing southeast, October 3, 2017.

Photograph 6. Resource 1, the former garden center. Camera facing northwest, October 3, 2017.

Photograph 7. Resource 1, the former garden center. Camera facing southeast, October 3, 2017.

Photograph 8. Resource 2, a bathroom and former concession stand. Camera facing southwest, October 3, 2017.

Photograph 9. Resource 2, a bathroom and former concession stand. Camera facing northeast, October 3, 2017.

Photograph 10. Resource 3, the baseball field. Camera facing southwest, October 3, 2017.

Photograph 11. Resource 3, bleachers, chain-link dugout, and backstop. Camera facing east, October 3, 2017.

Photograph 12. Resource 4, horseshoe pits. Camera facing north, October 3, 2017.

Photograph 13. Resource 5, rose garden. Camera facing northeast, October 3, 2017.

Photograph 14. Resource 6, picnic area west of the Rose garden. Camera facing northwest, October 3, 2017.

Photograph 15. Resource 7, the decomposed granite path along H Street with water fountain. Camera facing east, October 3, 2017.

Photograph 16. Resource 7, running path along 33rd Street. Camera facing south, October 3, 2017.

Photograph 17. Resource 8, McKinley Park Pond. Camera facing northeast, October 3, 2017.

Photograph 18. Resource 8, McKinley Park Pond. Camera facing east, October 3, 2017.

Photograph 19. Resource 9, McKinley Park basketball court is at far left. Camera facing southwest, October 3, 2017.

Photograph 20. Resource 10, Modern bathroom. Camera facing northeast, October 3, 2017.

Photograph 21. Resource 11, picnic area shade structure. Camera facing north, October 3, 2017.

Photograph 22. Resource 12, running path along 33rd Street. Camera facing south, October 3, 2017.

Photograph 23. Resource 13, Clunie Memorial. Camera facing northeast, October 3, 2017.

Photograph 24. Resource 13, Clunie Memorial Pool. Camera facing northwest, October 3, 2017.

Photograph 25. Resource 14, the soccer field with Resource 13 beyond. Camera facing south, October 3, 2017.

Photograph 26. Resource 15, handball court. Camera facing northwest, October 3, 2017.

Photograph 27. Resource 16, the tennis courts note the older style water fountain. Camera facing northwest, October 3, 2017.

Photograph 28. Resource 17, Volleyball pole with Resource 16 and 18 beyond. Camera facing northeast, October 3, 2017.

Photograph 29. Resource 18, tennis building. Camera facing southwest, October 3, 2017.

Photograph 30. Resource 19, Barbeque and picnic area. Camera facing east, October 3, 2017.

Photograph 31. Resource 20, Shepard Garden and Arts Center entrance. Camera facing south, October 3, 2017.

Photograph 31. Resource 20, Shepard Garden and Arts Center rear elevation. Camera facing northeast, October 3, 2017.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary#
HRI#
Trinomial

Page 40 **of** 40 ***Resource Name or #** (Assigned by recorder) McKinley Park

***Map Name:** East Sacramento ***Scale:** 1:24,000 ***Date of map:** 1967