SAN JOSÉ / SANTA CLARA REGIONAL WASTEWATER FACILITY IRON SALT FEED STATION PROJECT

Initial Study

File Number PP14-098

Prepared for **May 2015**

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement
Harry Freitas, Director

ERRATA to the
San José / Santa Clara Regional Wastewater Facility
Iron Salt Feed Station Project
Mitigated Negative Declaration (MND)

FILE NO.	PP14-098
LOCATION OF PROPERTY	700 Los Esteros Road
APPLICANT	City of San Jose, Environmental Services Department
ADDRESS	200 East Santa Clara Street, 10th Floor San Jose, CA 95113

PURPOSE

The California Environmental Quality Act (CEQA) Guidelines, Section 15073.5, requires that a lead agency recirculate a negative declaration "when the document must be substantially revised." A "substantial revision" includes: (1) identification of a new, avoidable significant effect requiring mitigation measures or project revisions, and/or (2) determination that proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures and revisions must be required.

State CEQA Guidelines additionally specify situations in which recirculation of a negative declaration is not required. This includes, but is not limited to, situations in which "new information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration." As noted below, revisions to the proposed project would not change the extent of the project analyzed in the IS/MND. Changes to the negative declaration would therefore merely clarify the project being analyzed, and modifications would be insignificant. Recirculation of the negative declaration is therefore not required in accordance with Section 15073.5(c)(4).

Proposed Project Modifications and Analysis

The Environmental Services Division, along with the design consultant, has modified the location of the construction staging area for this project. The MND evaluated the Iron Salts project with a construction staging area located adjacent to the northeast side of the Emergency Basin Overflow Structure (EBOS) to be utilized for project construction. Temporary fencing would be installed along the boundary of the construction area, and temporary lighting would be utilized as needed during the construction period.

Due to the delay in completing the final design of the City of San Jose's Department of Public Works Spreckles Force Main Project, the construction for these two projects would overlap for an extended period of time. The Iron Salt Project staging area as proposed would interfere with the construction of two 10" force mains, pig receiving station, and valve boxes proposed by the Spreckles Force Main Project which located in the same vicinity.

The construction staging area has been relocated to the west side of the EBOS in order to avoid conflict with an unrelated Public Works project in the vicinity and because it is closer to the existing access road (Figure 1). Temporary fencing would still be installed along the boundary of the modified construction area, and temporary lighting would still be utilized as needed during the construction period.

The site of the proposed construction staging area is in substantially the same condition as the originally considered staging area. Approximately 150 feet to the southeast of the original staging area, the proposed staging area would be accessed through the main entrance gate at Main Street. As described in the Initial Study/MND for the Project, the area is undeveloped open space directly south of the Facility and is comprised of non-native grass and common weed species. Table 1 below compares the environmental conclusions between the Project and the modified Project.

Table 1. Comparison

Environmental Issue	**Project**	**Modified Project**	**Conclusion**
Aesthetics	No Impact	No Impact	No Change
Agriculture and Forest Resources	No Impact	No Impact	No Change
Air Quality	No Impact	No Impact	No Change
Biological Resources	LTS/Mitigation	LTS/Mitigation	No Change
Cultural Resources	LTS/Mitigation	LTS/Mitigation	No Change
Geology and Soils	No Impact	No Impact	No Change
Greenhouse Gas Emissions	No Impact	No Impact	No Change
Hazards and Hazardous Materials	LTS/Mitigation	LTS/Mitigation	No Change
Hydrology and Water Quality	No Impact	No Impact	No Change
Land Use and Planning	No Impact	No Impact	No Change
Mineral Resources	No Impact	No Impact	No Change
Noise	No Impact	No Impact	No Change
Population and Housing	No Impact	No Impact	No Change

Public Services	No Impact	No Impact	No Change
Recreation	No Impact	No Impact	No Change
Transportation/Traffic	No Impact	No Impact	No Change
Utilities and Service Systems	No Impact	No Impact	No Change
Mandatory Findings of Significance	LTS/Mitigation	LTS/Mitigation	No Change

This change has been considered and analyzed for impacts to the entire analysis presented in the Initial Study/MND. This project modification has been found to be not significant because it does not alter any significance conclusions identified within the MND, and there is no potential to increase the severity of an impact identified in the MND.

Conclusion

As discussed above and as identified in Table 1, the proposed relocation of the construction staging area for the Iron Salts project would not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The modified construction staging area map is incorporated as part of the Initial Study/MND.

The information presented in this document serves to clarify or amplify conclusions in the MND. This new information is not significant and recirculation is not required. In conformance with Section 15074 of the CEQA Guidelines, the MND, technical appendices and reports, together with the Errata and the information contained in this document are intended to serve as documents that will inform the decision-makers and the public of environmental effects of this project.

Harry Freitas, Director
Planning, Building and Code Enforcement

Date: 8-13-2015

Deputy

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Department of Planning, Building and Code Enforcement

HARRY FREITAS, DIRECTOR

MITIGATED NEGATIVE DECLARATION

The Director of Planning, Building and Code Enforcement has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of project completion. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

NAME OF PROJECT: San José/Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project.

PROJECT FILE NUMBER: PP14-098

PROJECT DESCRIPTION: Public project for the construction of two new chemical facilities, the Ferric Chloride Feed Station and Polymer Feed Station, at the San José/Santa Clara Regional Wastewater Facility.

PROJECT LOCATION & ASSESSORS PARCEL NO.: The project site is located within the existing San José/Santa Clara Regional Wastewater Facility grounds, within the Central Facility Area and along the southwestern margin of the Facility in San José, California. The address associated with the project site is 700 Los Esteros Road. The Assessor's Parcel Number (APN) is 015-31-024 on the Santa Clara County Assessor's Parcel Map.

COUNCIL DISTRICT: 4

APPLICANT CONTACT INFORMATION: City of San José Environmental Services Division (Attn: Stephanie Green), 200 East Santa Clara Street, San Jose, CA 95113

FINDING:

The Director of Planning, Building & Code Enforcement finds the project described above will not have a significant effect on the environment in that the attached initial study identifies one or more potentially significant effects on the environment for which the project applicant, before public release of this draft Mitigated Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects to a less than significant level.

MITIGATION MEASURES INCLUDED IN THE PROJECT TO REDUCE POTENTIALLY SIGNIFICANT EFFECTS TO A LESS THAN SIGNIFICANT LEVEL

I. AESTHETICS. The project will not have a significant impact on aesthetics or visual resources, therefore no mitigation is required.

II. AGRICULTURE AND FOREST RESOURCES. The project will not have a significant impact on agriculture or forest resources, therefore no mitigation is required.

III. AIR QUALITY. The project will not have a significant impact on air quality, therefore no mitigation is required.

IV. BIOLOGICAL RESOURCES.

Impact BIO-1:

Construction activities, especially those that involve ground disturbance and the use of heavy machinery, may affect nesting birds including special-status birds which may occur in the Project area. The addition of lighting associated with the construction and operation of new facilities may also result in adverse effects on breeding birds. Project implementation, particularly construction activities associated with the Ferric Chloride Feed Station, may result in adverse effects on foraging or breeding burrowing owls in occupied adjacent areas.

MM BIO-1: Preconstruction Surveys for Nesting Birds

If Project construction is scheduled during breeding bird season (February 1–August 31), a qualified wildlife biologist the City shall retain a qualified biologist to conduct a survey for nesting raptors and migratory bird nests within 7 days of the start of construction or after any construction breaks of 14 days or more. Surveys shall be performed for the Project area and for suitable habitat within 300 feet. If an active nest is identified, a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, or nests identified on Facility buildings, the nest itself) shall be established. The no-disturbance zone shall be marked with flagging or fencing that is easily identified and avoided by the construction crew. In general, the minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, they may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer widths may be modified based on discussion with CDFW. Buffers shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest.

Construction activities that are scheduled to begin before the breeding season (i.e., begin between September 1 and January 31) can proceed without surveys. Optimally, all necessary tree and vegetation removal should be conducted before the start of breeding bird season (generally between February 1 and August 31) to minimize the opportunity for birds to nest in the Project area and conflict with Project constriction activities.

MM BIO-2: Minimize Light Pollution

Lights at each development site (during construction and operation) will be directed downward and shielded where necessary to ensure that no fugitive light spills out into natural lands and interferes with typical avian behavior.

MM BIO-3: Burrowing Owl Protection Measures

To avoid or minimize direct impacts of Project activities on western burrowing owls, the City shall ensure the following procedures are implemented consistent with the SCVHP. This survey methodology is consistent with accepted survey protocols for this species.

1. *Habitat Survey*
   a) Western burrowing owl habitat surveys will be required in the Project area in all SCVHP modeled occupied habitat. Surveys are not required in sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Modeled habitat types may change throughout the permit term based on the best available scientific data. Habitat surveys are required in both breeding and non-breeding seasons.
   b) Qualified biologist(s) shall conduct a pedestrian survey of the Project area and accessible areas within 250-feet of the Project area. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be no more than 50 feet and can be reduced to account for differences in terrain, vegetation density, and ground surface visibility. The biologist shall map areas with burrows or burrow complexes that could support burrowing owls and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement).
   c) Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 150 feet wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.
   d) If suitable habitat is identified during the habitat survey, and if the Project does not fully avoid impacts to the suitable habitat, preconstruction surveys will be required. Suitable habitat is fully avoided if the project footprint does not impinge on a 250-foot buffer around the suitable burrow.
2. *Preconstruction Surveys*
   a) A qualified biologist shall conduct preconstruction surveys in all suitable habitat identified in the habitat surveys within 250 feet of construction activity, between 4 and 14 days prior to initiating ground disturbance related to Project construction activities. The 250-foot buffer zone is surveyed to identify burrows and owls outside of the Project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. As burrowing owls may recolonize a site after only a few days, time lapses between Project

activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted no more than 2 days prior to ground disturbance to ensure absence. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed).

b) The preconstruction survey will last a minimum of 3 hours and will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites.

3. *Avoidance Measures*

The City will employ avoidance measures described below to avoid direct take of individual burrowing owls during Project construction.

Breeding Season Avoidance Measures - February 1 to August 31

a) If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the Project area during the breeding season, the Project proponent will avoid all nest sites that could be disturbed by Project construction activities during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot no-disturbance buffer zone around active nest sites by a qualified biologist.

b) If avoidance of active nests site is not feasible, construction may occur within 250 feet of active nest sites if 1) the nest is not disturbed, and 2) the Project proponent develops and implements an Avoidance, Minimization, and Monitoring Plan, subject to approval by CDFW the Habitat Agency overseeing the SCVHP. The plan shall incorporate the following criteria:

i. A qualified biologist monitors the owls for at least 3 days prior to Project construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

ii. If there is any change in owl nesting and foraging behavior as a result of Project construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.

iii. If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the no disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from CDFW.

Non-Breeding Season Avoidance Measures – September 1 to January 31

iv. If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the Project area during the

non-breeding season the Project proponent will establish a 250-foot no-disturbance buffer around occupied overwintering burrows as determined by a qualified biologist.

v. If avoidance of occupied burrows is not feasible, construction may occur within 250 feet of overwintering burrows sites if:

vi. A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).

vii. The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.

viii. If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.

ix. If the owls are gone for at least one week, the Project proponent may request approval from the SCVHP Habitat Agency for qualified biologist to excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the no-disturbance buffer zone can be removed and construction may continue. Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

4. *Construction Monitoring and Environmental Training*
During construction, the no-disturbance buffer zones will be established and maintained where applicable and based on the Project Avoidance, Minimization, and Monitoring Plan. A qualified biologist will monitor the site consistent with the requirements described in the Avoidance Measures, above to ensure that buffers are enforced and owls are not disturbed. The qualified biological monitor will prepare and perform an environmental training for all Project personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

5. *Passive Relocation*
If avoidance measures described above are not feasible under the Project, Passive Relocation may be implemented according to the protocol described in the SCVHP and in coordination with, and approval by CDFW.

Impact BIO-2:

The Ferric Chloride Feed Station project site is located immediately south of the uppermost reach of a remnant drainage area, which may be a remnant of the historic Artesian Slough Channel.

MM BIO-4: Avoidance and Protection of Jurisdictional Waters

Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional features. Where work will occur on the Project adjacent to state and federal jurisdictional waters, protection measures shall be applied to protect these features. These measures shall include the following:

1. A protective barrier (such as silt fencing) shall be erected around water features adjacent to the Project at the "top of bank" or at the feature boundary to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance;
2. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities;
3. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of the City has inspected and approved the protection fencing; and
4. The City shall ensure that the temporary fencing is continuously maintained until the Project is completed.
5. Drainage from all proposed facilities where chemical spills could occur during Project operation shall be directed away from sensitive resources and/or include other measures to minimize potential for release of potential pollutants to the environment.

Impact BIO-3:

Potentially jurisdictional waters of the U.S. and State occur adjacent to the Ferric Chloride Feed Station site and may be temporarily or permanently impacted during Project implementation.

Implement:
MM BIO-4 Avoidance and Protection of Jurisdictional Waters

Impact BIO-4:

Breeding bird nests and burrows (i.e. wildlife nursery sites) may be disrupted by Project activities.

Implement:
MM BIO-1: Preconstruction Surveys for Nesting Birds,
MM BIO-2: Minimize Light Pollution,
MM BIO-3: Burrowing Owl Protection Measures

Impact BIO-5:

The Project would result in the removal of three mature trees of native species located within the proposed Polymer Feed Station project site.

MM BIO-5: Compensate for Removal of Protected Trees

The three trees to be removed in support of the Polymer Feed Station are of native species whose circumferences' are each greater than 18 inches when measured at two feet above the ground. The trees will be replaced on-site or off-site, in consultation with the City Arborist, at the accepted ratios or pay an in-lieu fee to Our City Forest to compensate for the loss of the three trees. Protected trees that are lost as a result of the Project will be replaced at a minimum of four 24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Director of Planning, who will determine the final mitigation for impacts to protected trees. Replacement trees can be planted in a

suitable location on Facility property or on other City property, to be identified by the City and approved by the Director of Planning.

Impact BIO-6:

Project development would result in the loss of land designated under the Habitat Plan as ranchlands or natural lands, result in a loss of occupied burrowing owl breeding and foraging habitat, and potentially cause take of individual burrowing owls.

Implement:
MM BIO-2: Burrowing Owl Protection Measures

V. CULTURAL RESOURCES.

Impact CUL-1:

While unlikely, given the general sensitivity of the Project vicinity, the inadvertent discovery of archaeological resources could be possible.

MM CUL-1: Accidental Discovery of Archaeological Resources

If discovery is made of items of historic or archaeological interest, the City's contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include the remains of stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation the contractor shall immediately contact the City. The contractor shall not resume work until authorization is received from the City.

Any inadvertent discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If it is determined that the Project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, the archaeologist shall develop a treatment plan in consultation with the City and appropriate Native American representatives (if the find is of Native American origin).

Impact CUL-2:

There is no indication that the Project area has been used for burial purposes in the recent or distant past. Although unlikely, the discovery of human remains during Project construction is possible.

MM CUL-2: Accidental Discovery of Human Remains

Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

VI. GEOLOGY AND SOILS. The project will not have a significant impact due to geology and soils, therefore no mitigation is required.

VII. GREENHOUSE GAS EMISSIONS. The project will not have a significant impact due to greenhouse gas emissions, therefore no mitigation is required.

VIII. HAZARDS AND HAZARDOUS MATERIALS.

Impact HAZ-1:

Excavation anywhere within the Project area could potentially result in the encounter of contaminated soils. As a result, the potential exists for workers to encounter hazardous materials in the soil during construction of the proposed Project facilities.

MM HAZ-1a: Pre-Construction Hazardous Materials Assessment

Prior to issuance of grading permits for Project construction, the City or its contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and/or groundwater quality. The City shall conduct a site assessment including potential testing of soil and/or groundwater, and if testing reveals soil and/or groundwater concentrations that exceed applicable regulatory screening levels, the City shall contact the Santa Clara County Department of Environmental Health (SCCDEH) or Regional Water Quality Control Board (RWQCB), as appropriate, to secure regulatory oversight.

The work plan will establish the sampling and laboratory analysis program which may include the following: analysis of subsurface soil samples within the

Project area for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and VOCs or any other chemicals of concern to evaluate the potential presence of contamination; groundwater samples if subsurface excavations are anticipated to require dewatering;. and additional analyses for VOCs and SVOCs for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills.

The results of the hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b and the Soil and Groundwater Management Plan prepared in accordance with Mitigation Measure HAZ-1c to determine whether: specific soil and groundwater management and disposal procedures for contaminated materials are required; excavated soils are suitable for reuse; and construction worker health and safety procedures for working with contaminated materials are required. If the pre-construction hazardous materials assessment identifies the presence of soil and/or groundwater contamination at concentrations in excess of applicable regulatory screening levels (Environmental Screening Levels [ESLs] or California human health screening levels [CHHSLs]) for proposed site use, the City shall complete site assessment and remedial activities required by the regulatory agency to ensure that residual soil and/or groundwater contamination, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment.

MM HAZ-1b: Health and Safety Plan

The City shall require the construction contractor to retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction of the individual projects. The HASP shall include the following information.

- Results of sampling conducted in accordance with Mitigation Measure HAZ-1a.
- All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations.
- Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP.
- The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence

of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall direct procedures to be followed in the event that an unanticipated hazardous materials release with the potential to impact health and safety is encountered. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release; notifying SCCDEH and retaining a qualified environmental firm to perform sampling, remediation, and/or disposal.

- Documentation that HASP measures have been implemented during construction.
- Provision that submittal of the HASP to the City, or any review of the contractor's HASP by the City, shall not be construed as approval of the adequacy of the contractor's health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.

MM HAZ-1c: Soil and Groundwater Management Plan

If ground-borne hazardous materials are identified under the Pre-Construction Hazardous Materials Assessment, the City shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan, subject to review by the City, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan shall include the following information.

- Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility.
- Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.

- Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method to analyzed groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods.

Impact HAZ-2:

While the Project area themselves are not listed on a regulatory agency list of hazardous materials sites, it is possible that contaminated soil or groundwater could occur due to adjacent hazardous materials site listings.

Implement:
MM HAZ-1a: Pre-Construction Hazardous Materials Assessment,
MM HAZ-1b: Health and Safety Plan,
MM HAZ-1c: Soil and Groundwater Management Plan

IX. HYDROLOGY AND WATER QUALITY. The project will not have a significant hydrology and water quality impact, therefore no mitigation is required.

X. LAND USE AND PLANNING. The project will not have a significant land use impact, therefore no mitigation is required.

XI. MINERAL RESOURCES. The project will not have a significant impact on mineral resources, therefore no mitigation is required.

XII. NOISE. The project will not have a significant noise impact, therefore no mitigation is required.

XIII. POPULATION AND HOUSING. The project will not have a significant population and housing impact, therefore no mitigation is required.

XIV. PUBLIC SERVICES. The project will not have a significant impact on public services, therefore no mitigation is required.

XV. RECREATION. The project will not have a significant impact on recreation, therefore no mitigation is required.

XVI. TRANSPORTATION / TRAFFIC. The project will not have a significant traffic impact, therefore no mitigation is required.

XVII. UTILITIES AND SERVICE SYSTEMS. The project will not have a significant impact on utilities and service systems, therefore no mitigation is required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

Impact MFS-1:

The Project could result in impacts that are individually limited, but cumulatively considerable.

MM C-TR: Implement Coordinated Transportation Management Plan.

Prior to construction, the City's contractor(s) shall develop a Coordinated Transportation Management Plan and work with other projects' contractors and appropriate City departments (e.g., Emergency Services, Fire, Police, Transportation) to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Project as well as planned Facility improvements and land uses, and to address the transportation impact of the overlapping construction projects within the vicinity of the Project in the region. The transportation management plan shall include, but not be limited to, the following requirements:

- Coordination of individual traffic control plans for the Project with nearby projects.
- Coordination between the Project contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address:
    - Full and partial roadways closures
    - Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices
    - Bicycle/Pedestrian detour plans, where applicable
    - Parking along public roadways
    - Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites
- Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.

PUBLIC REVIEW PERIOD

Before 5:00 p.m. on **June 10, 2015** any person may:

1. Review the Draft Mitigated Negative Declaration (MND) as an informational document only; or

2. Submit written comments regarding the information, analysis, and mitigation measures in the Draft MND. Before the MND is adopted, Planning staff will prepare written responses to any comments, and revise the Draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the Final MND.

Harry Freitas, Director
Planning, Building and Code Enforcement

Deputy

Circulation period, from May 11, 2015 to June 10, 2015.

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San José / Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project Initial Study

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CHAPTER 1
Project Description

The following text provides relevant background for the San José / Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project (Project), City of San José File Number PP14-098, identifies the Project location, describes the Project area, identifies Project objectives and need, reviews proposed facilities and operations, and summarizes proposed construction process and schedule.

1.1 Introduction

The San José / Santa Clara Regional Wastewater Facility (Facility) treats domestic, industrial, and commercial wastewater from the cities of San José, Santa Clara, Campbell, Los Gatos, Monte Sereno, Cupertino, Milpitas, and Saratoga; and unincorporated Santa Clara County. In total, the existing service area covers roughly 300 square miles and contains a service population of approximately 2 million people (1.4 million residents and 600,000 workers).

Originally constructed in 1956, the Facility treats an average of 110 million gallons per day (mgd) of wastewater, with an existing capacity of 167 mgd. The Facility provides a tertiary level of treatment, in accordance with state and local regulations. It produces recycled water for industrial use and toilet flushes, and also discharges treated wastewater to the South San Francisco Bay. The City of San José (City) manages the Facility and the surrounding Facility lands, which together total approximately 2,680 acres. About half of this area consists of current and former lagoons and drying beds used for biosolids management, and lands that have provided a buffer between Facility operations and neighboring land uses.

The Facility operates under a Bay Area Air Quality Management District (BAAQMD) permit, which includes an airborne limit of 350 parts per million (ppm) total sulfur for the concentration of hydrogen sulfide (H_2S) relevant to digester gas produced at the Facility.[1] H_2S is an air pollutant that has a strong odor (rotten eggs), can have deleterious human health effects, and can also induce corrosion within industrial facilities. In 2009 through 2012, the City completed a series of tests to evaluate potential for use of raw sewage chemical treatments to control the level of H_2S in digester gas, and to enhance primary treatment. Test results led the City to identify a combination of ferric chloride (iron salt) and anionic polymer as the preferred chemical treatment option, needed to manage H_2S concentrations. In order to control the level of H_2S in digester gas and increase solids removal in the primary clarifiers, the City is proposing the construction of two new chemical facilities under this project: the Ferric Chloride

[1] Thickened scum, sludge, and, occasionally, flocculated algae solids removed from the wastewater during primary and secondary treatment processes are pumped to anaerobic digestion tanks. Digester gas, which includes methane, carbon dioxide, and trace gases such as hydrogen sulfide, is produced during the digestion process.

Feed Station and Polymer Feed Station. This document provides an environmental evaluation of the proposed Ferric Chloride Feed Station and Polymer Feed Station (the project).

1.2 Relationship to the Plant Master Plan

The City has prepared a Master Plan for the Regional Wastewater Facility that addresses various improvement projects needed to address aging infrastructure, reduce odors, accommodate projected population growth in the Facility's service area, and comply with changing regulations that affect the Facility. The Master Plan also includes a comprehensive land use plan for the Facility lands surrounding the Facility operational area. The master planning effort identified both near-term and long-term (to year 2040) Facility improvements and land uses, which have been evaluated in the San José/Santa Clara Water Pollution Control Plant Master Plan Environmental Impact Report (Plant Master Plan EIR; State Clearinghouse # 2011052074).[2] The Master Plan effort focuses on future planning efforts for the Facility and surrounding areas.

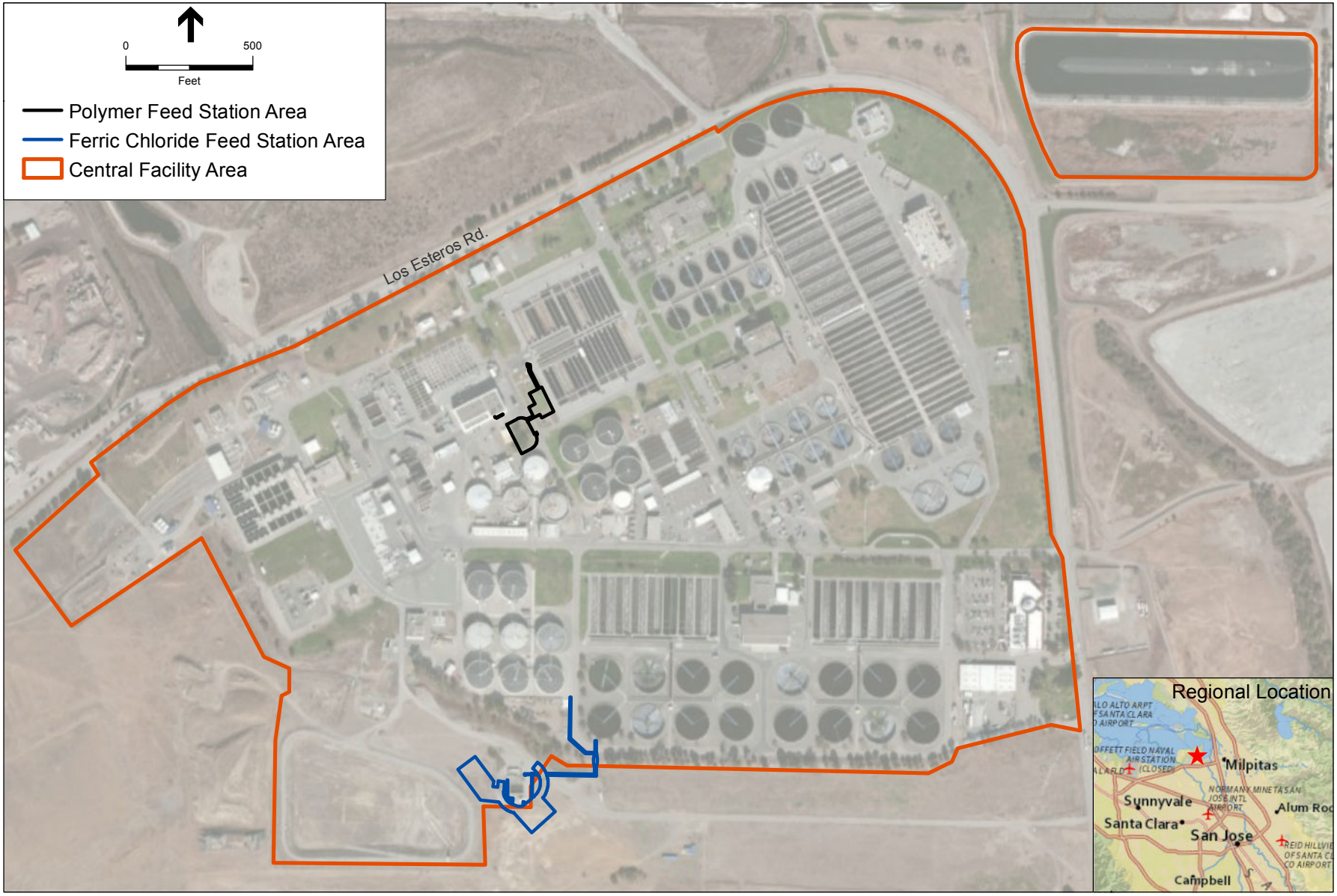
The Project evaluated in this initial study was not fully characterized within the suite of projects evaluated under the Plant Master Plan EIR. The Plant Master Plan did identify the need to reduce odor impacts from Facility operations. Additionally, facilities considered under the present project were also included in the list of cumulative scenario projects that we analyzed in the Plant Master Plan EIR. Thus, this Initial Study/Mitigated Negative Declaration is considered to be entirely separate from the Plant Master Plan EIR, and does not rely on the Plant Master Plan EIR for tiering under CEQA.

Projects that would contribute to a reduction in odor emissions include installation of iron salt facilities at the Emergency Basin Overflow Structure (EBOS) and Primaries. The iron salts project would contribute to a reduction in odor emissions from the Facility, and would minimize the corrosive impacts of H_2S generation. The addition of ferric chloride to influent wastewater is commonly used in the wastewater treatment industry to chemically enhance the precipitation of solids. Increased removal in the primary treatment phase not only decreases the organic load on the secondary treatment process, but also increases the amount of primary settled sludge, which increases the feedstock to the digesters, resulting in increased gas production. Iron salts are also very effective in binding and precipitating phosphorus, which prevents the phosphorus from forming struvite (magnesium ammonium phosphate depositions); cleaning struvite from digesters and sludge exporting pipelines is a costly process.

1.3 Project Location and Facility Siting

The Project would be located in the northern area of Santa Clara County, within the City, near the City's northern margin. The Project area is located within the existing Facility grounds, within the Central Facility Area and along the southwestern margin of the Facility, as shown in **Figure 1-1**. The proposed Ferric Chloride Feed Station would be located northeast of the existing EBOS, and southwest

[2] The City circulated the San José/Santa Clara Water Pollution Control Plant Master Plan Draft EIR in January, 2013, and the City Council certified the EIR in November 2013.



SOURCE: ESRI, 2013

San José/Santa Clara Regional Wastewater Iron Salt Feed Station IS/MND . 131002.08

Figure 1-1

Project Location and Central Facility Operational Area

of the Facility's existing digesters (**Figure 1-2**). It would be surrounded by existing wastewater treatment facilities to the north, an environmentally sensitive area located to the south of the EBOS, and undeveloped areas to the west and east. The Polymer Feed Station would be located to the south of the Pump and Engine Building, and west of the east primary clarifiers (**Figure 1-3**). It would be surrounded by existing wastewater treatment facilities on all sides. The project area includes the area for both the Ferric Chloride Feed Station and the Polymer Feed Station. Areas that generally surround the project area and the overall Facility include open space (disturbed intermittently by Facility operations) within the existing bufferlands, with the nearest offsite development (a business park) located approximately 0.6 miles (3,300 feet) to the southwest, and the nearest residential development located 0.9 miles (4,800 feet) to the west. The southern reaches of the San Francisco Bay are located approximately 0.8 miles (4,000) feet north of the project area. The project area is generally flat and low-lying, with limited topography near the boundary of the existing Central Facility Area. Most of the project area ranges from 7 to 15 feet above mean sea level (msl).

The Project area shown in Figure 1-1 reflect the largest potential area that would be disturbed by Project construction. Within the Project, footprints the specific location and arrangement of required facilities may be modified or altered, and would be finalized as Project design is finalized, which would occur after completion of the CEQA environmental review process. The City proposes to complete Project design under a traditional design/bid/build contract. Final design and layout of facilities will be provided by the City's consulting engineer, under the direction of City staff. Although Project facilities may not occupy the entire Project area, because the specific locations for the proposed facilities and appurtenances within the boundaries of the Project area would not be identified prior to completion of CEQA review, this Initial Study assumes that the proposed facilities could be located anywhere within the Project area boundaries and assumes the entire area could be disturbed.

1.4 Project Need and Objectives

Ferric chloride is being added to reduce the amount of H_2S in liquid wastewater in the headworks (HWs), in the primary clarifiers, and in digester gas, sufficient to reduce H_2S gas concentrations to well below BAAQMD's air permit limit of 350 ppm. Thus the Project would enable the Facility to maintain compliance with the requirements of its air emissions permit. A secondary use of ferric chloride, along with polymer, is to increase the amount of solids coagulation/flocculation and, therefore, enhance solids removal in the primary treatment system.

The intent of the Polymer Feed Station is to house the polymer storage and feed systems, that would provide an additional tool to enhance primary clarification. The Polymer Feed Station would dose supplemental anionic polymer to the primary treatment process, in order to increase suspended solids removal in the primary clarifiers.

The following objectives have been identified for the Project:

- Control the level of H_2S in digester gas to below the BAAQMD's air permit limit of 350 ppm total sulfur.
- Increase suspended solids removal in primary treatment.

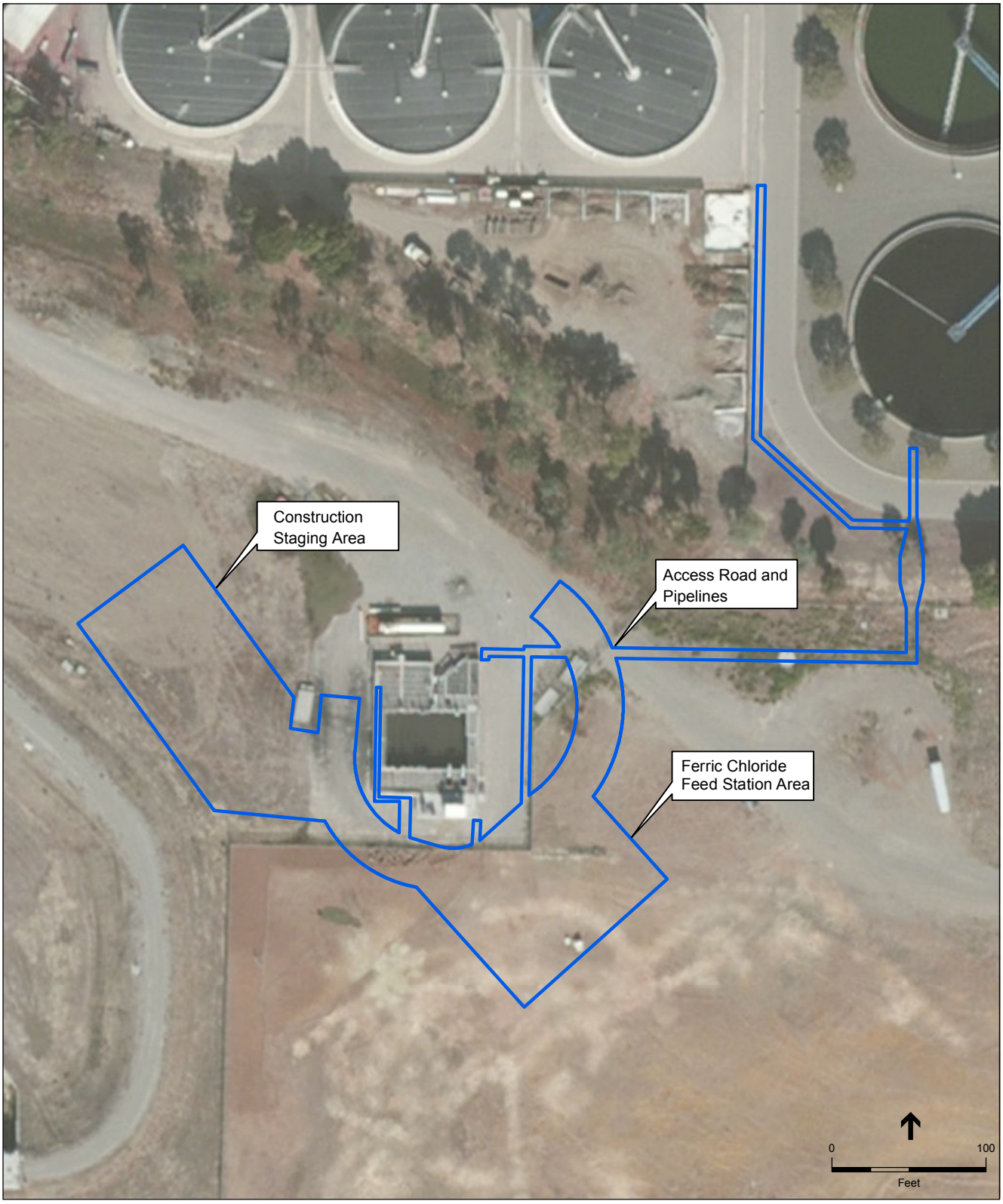
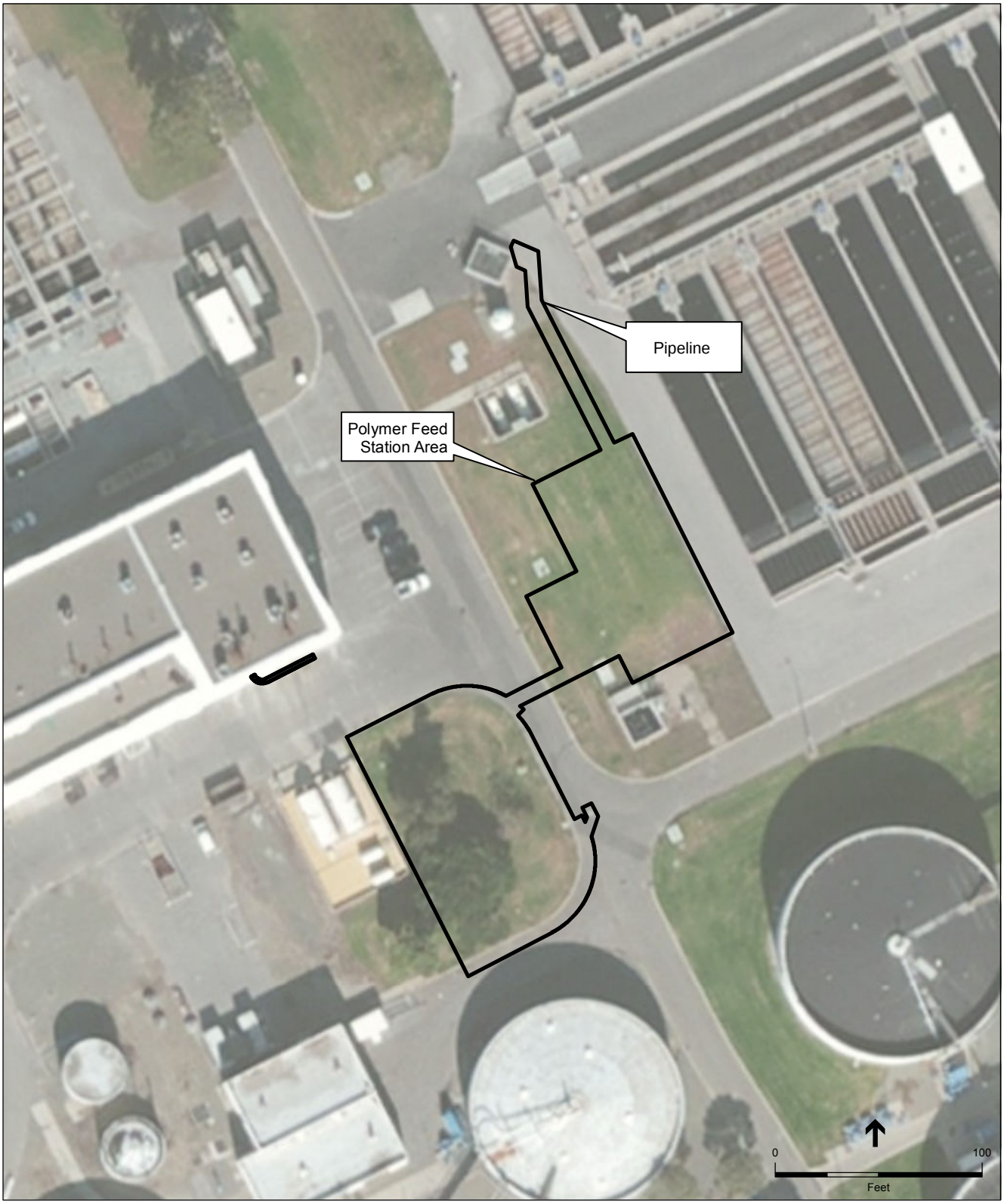


Figure 1-2
Ferric Chloride Feed Station Area



San José/Santa Clara Regional Wastewater Iron Salt Feed Station IS/MND . 131002.08

Figure 1-3
Polymer Feed Station Area

1.5 Proposed Facilities

The project involves design and construction of the following two new chemical feed stations at the Facility.

1.5.1 Ferric Chloride Feed Station

The new Ferric Chloride Feed Station would be located near the existing EBOS and would include four 11,000-gallon FRP ferric chloride bulk storage tanks and metering facilities, including three metering pump pairs sized for approximately 4 gallons per minute (gpm) per pair. Space would be provided for an additional pair for future requirements.

The station would be an open structure with a canopy over the metering pumps and electrical equipment. The new station would encompass an area of approximately 3,000 square feet surrounded by a six-foot high chain link fence. The new station would be equipped with a chemical off-loading facility and road improvements to enable truck access. The road improvements would consist of graveling a portion of the site from Mike Tocce Lane to the northeastern corner of the proposed facility and a portion of the site from the northwestern corner of the facility to the existing access road for the EBOS. There would also be one 9 x 18 foot parking space provided to the west of the new station. The chemical off-loading pad would be located outside of structure, and equipped with curb and sump pumps. Connections to the existing facility electrical, communication, controls, plant water, stormwater, and other utilities would also be provided.

Utility water would be provided for occasional washdown and to manage potential accidental chemical spill cleanup at the station. Potable water (WTR1) would also be provided for combination safety shower and eyewash stations and as needed to comply with Occupational Safety and Health Administration (OSHA) guidelines.

1.5.2 Polymer Feed Station

The new Polymer Feed Station would be constructed on the western side of the East Primary Clarifiers and encompass an area of approximately 2,000 square feet. The polymer preparation/metering system would consist of:

- one 6,000-gallon FRP bulk polymer storage tank
- a polymer blending unit
- a 3,000-gallon aging tank
- a polymer solution metering pump

The station would be an open structure with a canopy over the polymer storage and blending facilities and chemical metering equipment. The facilities would be equipped with a new truck access and chemical containment and offloading facilities. The Polymer Feed Station would include one polymer storage/blending/aging/feed process train. The polymer preparation train would be sized for the year 2040 maximum day demand condition of 147 gallons per day of emulsion polymer, and would be set up so as to be able to easily add a second process train in the future if deemed necessary.

The aging tank would be sized to provide 30 minutes of aging at an annual average day. The aging tank and the polymer storage tank would both be equipped with level monitoring, an access hatch, and the following pipe connections: inlet, outlet, overflow, drain, and vent. Each tank vent would be equipped with a system to minimize condensation inside the tank, and to prevent polymer activation, which could cause plugging of the piping and polymer blending units.

Sump pumps would be located at the unloading area and the storage tank/pump containment area. These sump pumps would primarily discharge to the East Primary Junction Box (EPJB) and would also be capable of pumping to the truck unloading connection in the event that fluid needed to be removed from the station area. The pumps would be sized for approximately 50 gpm.

Utility water would be provided for occasional washdown and chemical spill cleanup at the station. WTR1 would also be provided for eyewash stations and to comply with OSHA guidelines.

1.6 Facility Operations

The site layouts for these stations would be designed to accommodate routine maintenance by Facility staff, as well as access for frequent product truck deliveries at each of the sites. Lighting would be provided at each site to provide lighting for operations, access on and off the site, and would be controlled by photocell to operate from dusk until dawn; interior lighting would be switchable. Luminaires would be LED, and full-cutoff type luminaires would be deployed for exterior locations, to reduce light pollution into the sky.

1.6.1 Ferric Chloride Feed Station Operations

The delivery route for the new Ferric Chloride Feed Station is anticipated from Los Esteros Road through the main entrance gate, south on Main Street, west on Center Street, south on 6th Street, west on 7th Street, south across the existing box culvert, then continue on the proposed new access road to the station. The new access road provides forward truck turning without having to back up.

Ferric chloride would be delivered as an aqueous solution (i.e., dissolved in water), which would be delivered to the storage tanks inside the station, from a truck delivery station adjacent to the outside wall. Containment would be provided in the bulk storage tank area. The bulk storage system would have one permanently installed transfer pump. One tank would be designated as redundant to provide additional short-term storage or be used if a tank is out of service. Each tank would be equipped with level monitoring including, access hatch, and the following connections: inlet, outlet, overflow, drain, vent, level instruments, and spare.

The metering pump pairs would convey the chemical to the EBOS injection points. The ferric chloride transfer pump would be capable of moving chemical between any two tanks, or to the truck unloading connection if there is a need to remove ferric chloride from the station. Space would be provided for an additional pair of metering pumps for future requirements.

Ferric chloride would be added at the EBOS directly to the raw sewage pipes that convey flow to the current and future Headworks. Each ferric chloride application point would be provided with a submerged pipe diffuser, placed in the raw sewage flow path, that would be removable for maintenance. There would be two independent chemical addition points to the raw sewage at EBOS to Headworks 1 (HW1) and HW2 influent pipelines. In the future, after HW1 is decommissioned and new HW3 is constructed, the chemical addition points would be reconfigured to HW2 and HW3 influent pipelines. Existing raw sewage flow meters would be used to flow-pace the chemicals.

1.6.2 Polymer Feed Station Operations

The delivery route for the new Polymer Feed Station would be from Los Esteros Road through the main entrance gate, south on Main Street, west on Center Street, then north on 5th Street to the new site. Upon exiting, a WB-62 delivery truck would make a left turn towards C Street, then a left onto Center Street, then a left on Main Street and exit at the entrance gate. The existing intersection of 5th street and A street and Main Street and A Street curb returns do not accommodate a WB-62 truck.

Polymer solution would be delivered to the storage tank from a truck delivery station adjacent to the outside wall. The neat polymer blending pump, which is part of the polymer blending unit skid, would meter neat polymer from the storage tank. The neat polymer would be diluted to 0.5% of its initial concentration with dilution water and discharged to the aging tank. The aging tank would provide detention time to allow the polymer molecules of the 0.5% polymer solution to uncoil completely to maximize polymer use efficiency. Emulsion polymer is approximately 15% more effective after it has been aged for at least thirty minutes. The polymer solution make up process would be automated. The system would start to make a new polymer solution batch based on level in the polymer aging tank.

A progressing cavity polymer solution metering pump would draw polymer solution from the aging tank and discharge it to the EBJB through one of two parallel injection lines. The pump would flow pace the polymer solution flow based on a raw sewage flow signal. Carrier water would be added to the polymer solution at the discharge end of the polymer solution pumps in order to achieve the required post-dilution rate and provide additional mixing capability at the application point. Polymer would be post-diluted to between 0.1% and 0.25% for chemically enhanced primary treatment applications, based on manufacturer guidance.

The dosing point would be the EPJB and existing raw sewage flow meters would be used to flow-pace chemical delivery. No dosing would be provided to the West Primary Clarifiers, because these would be decommissioned and/or operated only intermittently in the future.

1.7 Construction Process and Schedule

The following section summarizes the construction process that would be utilized on site, identifies construction access roads, and delineates the anticipated construction schedule for the Project.

1.7.1 Construction Process

Initial construction activities would include installation of piping and underground utility connections to existing facilities. Such activities would include trenching, sheeting, and shoring. Later activities would include installation of cement pads, access roads on site, and installation of aboveground facilities. Proposed typical construction hours for the Project are Monday through Friday, 7:00 am to 5:00 pm. However, the selected contractor may be required to work on Saturday and Sunday, or during extended hours to support a critical Project development timeframe. The Project would require approximately 200 construction-related truck trips and 450 worker vehicle trips.

Ground disturbing activities (i.e., trenching, site excavation, structure excavation) would include approximately 20,590 square feet (sqft) for the Ferric Chloride Feed Station and approximately 11,310 sqft for the Polymer Feed Station. Portions of the Project area where facilities would be installed would be graded for construction. Project excavation would include approximately 800 sqft and 2,100 sqft for the Ferric Chloride Feed Station and the Polymer Feed Station, respectively. Total material hauled offsite would include approximately 530 cubic yards (CY) for the Ferric Chloride Feed Station and 1,660 CY for the Polymer Feed Station. The groundwater level in the proposed area of the new stations is shallow so groundwater pumping and control during excavation and construction of building foundation may be required.

Equipment required during Project construction would include the following: excavators, concrete saw, bulldozers, water tanker trucks, dump trucks, front end loader, flatbed truck, grader, vibrator, crane, rammer/tamper, rollers, welder, backhoe loader, and other large equipment typically used for minor to moderate earth moving, site preparation, and concrete pours.

Construction access would be through the main entrance gate at Main Street. One construction staging area located adjacent to the northeast side of the EBOS would be utilized for both the Ferric Chloride Station and Polymer Station construction. Temporary fencing would be installed along the boundary of the construction area, and temporary lighting would be utilized as needed during the construction period. The construction components proposed for each facility are further described below.

Ferric Chloride Feed Station

Project construction for the Ferric Chloride Feed Station would include removal of the existing chain-link fence adjacent to the EBOS. New construction for the station would include a graveled access road. Because future work is proposed around the EBOS, neither a permanent asphalt road nor road lighting would be installed as part of this project. A new concrete pad and paving for the new parking space would also be constructed as part of the new station.

Polymer Feed Station

Construction of the new Polymer Feed Station would include removal of the exiting vertical curb and multiple underground utility relocations. An existing manhole cover on the 12-inch primary scum pipe (PSM) has a top elevation higher than the surrounding grade, so this manhole cover would need

to be lowered to be flush with the new truck access driveway. Tree removal would also be necessary for the construction of the Polymer Feed Station. Trees would be surveyed prior to existing facility demolition to confirm which trees need to be removed.

New structures to support the Polymer Feed Station would include a concrete pad and paving for one parking space adjacent to the station. A new rolled curb for entrance and exit to the Polymer Feed Station would also be constructed.

1.7.2 Affected Roadways

Construction equipment and workers would access the site along Los Esteros Road and Zanker Road, connecting to State Route (SR) 237. Thus, site access would be via the southeastern corner of the Facility site.

1.7.3 Schedule

Construction of the proposed Project would occur within a 12-month timeframe, with a tentative start date of January 2016 and a tentative completion date of April 2017.

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CHAPTER 2
Environmental Checklist

2.1 Aesthetics

2.1.1 Setting

The Project area is located near the southern tip of the San Francisco Bay, within and near the southern margin of the existing Central Facility Area (see Figure 1-1). The Facility site is bounded on three sides by existing industrial areas and infrastructure, and by open fields, a business park to the south and southwest, and Alviso Village residences to the southwest and west. The proposed Ferric Chloride Feed Station area is surrounded by existing wastewater treatment facilities to the north, an environmentally sensitive area located to the south of the EBOS, and undeveloped areas to the west and east. The proposed Polymer Feed Station area is surrounded by existing wastewater treatment facilities on all sides. The Project area and vicinity is relatively flat, allowing for views from nearby offsite areas of the eastern foothills, Mount Hamilton, and the Diablo Mountains to the east, and the San Francisco Baylands to the north.

Roadways in the vicinity of the Project area include Zanker Road and Los Esteros Road, providing primary access to the Facility operational area and the primary means by which the public can observe the Project area. From outside the Master Plan planning area, viewing opportunities of the Project area are limited, distant, and largely screened by other Facility operational area facilities and landscaping. These facilities are industrial in character, with most buildings being one to two stories high. The Facility operational area also contains storage tanks, utility infrastructure, and a railroad line. The periphery of the Facility consists of fencing plus landscaping including eucalyptus trees, shrubs, and manicured lawns.

The nearest residences where the Project vicinity could be visible are located in the Alviso Village area, which is approximately 0.9 miles (4,800 feet) west or northwest of the Project area, however, it is anticipated that views of the Project from this area would be limited, restricted by existing berms surrounding the EBOS. Portions of the Project area would be visible from George Mayne Elementary School, located 0.85 miles (4,000 feet) southwest of the Project area. The Project area would also be visible from Zanker Road, and portions of Los Esteros Road.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
1. AESTHETICS — Would the project:					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	1, 2, 7
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐	1, 2, 7
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	1, 2
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐	1, 2

2.1.2 Discussion

a,c) **Less than Significant Impact.** The Project is located in and immediately adjacent to the existing Facility, and would involve the installation and use of two new, comparatively small facilities to house ferric chloride and polymer feed stations. The Project would also include road improvements for the Ferric Chloride Feed Station. There are no scenic vistas in the Project vicinity. The proposed facilities would be small and limited in height to approximately one story. Therefore, anticipated aesthetic changes would be limited in extent. Additionally, the Project would be installed adjacent to other industrial facilities that are similar in appearance, associated with the existing Facility. Therefore, the project would be consistent with the existing visual setting, would not result in a substantial adverse effect on any scenic vista, and would not substantially alter the existing visual character or quality of the Project area and its surroundings. This impact is considered less than significant.

b) **Less than Significant Impact.** The Project would be visible from SR 237, located approximately 0.6 mile south of the Project area. SR 237 is not listed as a state scenic highway, nor are other highways located in the vicinity of the Project. Additionally, no rock outcroppings or historic buildings are located on site or in the immediate vicinity of the Project area, such that views of such resources could be affected. Limited trees (i.e., existing Facility landscaping) are located adjacent to the Project area and tree removal would be required as part of the construction of the Polymer Feed Station. However, this would not affect the overall views of the area because the tree removal would occur at the interior of the Facility, an area that is not highly visible to surrounding viewing opportunities. Therefore, this impact is considered less than significant.

d) **Less than Significant Impact.** Nighttime lighting is currently used throughout the Facility central operational area, including the area adjacent to the proposed Polymer Feed Station area, with limited lighting within the proposed Ferric Chloride Feed Station area. The Project would add to existing lighting, sufficient to provide lighting needed for operations, access and security of the stations.

The City of San José Public Streetlights Council Policy 4-2 requires that new streetlight lighting be dimmable and programmable, which would control the amount and color of light shining on streets and sidewalks. However, because lighting would be used to operate critical Facility components, this policy is not relevant to the proposed Project. Further, because there are no residences or other active nighttime uses in the immediate vicinity of the proposed Project facilities, lighting impacts on aesthetics would be less than significant.

2.2 Agricultural and Forest Resources

2.2.1 Setting

There are no existing agricultural lands or forest resource areas located on the Project area or in the immediate vicinity of the Project. Surrounding lands to the south of the Project area currently serve as open space/bufferlands, much of which is designated as grazing land.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
2. AGRICULTURAL AND FOREST RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒	1
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	1
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒	1
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	1
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒	1

2.2.2 Discussion

a-e) **No Impact.** As noted above, the Project is not located on or in proximity to any agricultural lands (including Prime Farmland, Unique Farmland, or Farmland of Statewide Importance), lands subject to a Williamson Act contract, or forest lands. The Project would not result in the construction of any facilities or other displacement, interference, or loss of agricultural or forest lands. Additionally, the Project would not alter other areas which could, directly or indirectly, result in the conversion of farmland or forest land to other uses.

2.3 Air Quality

2.3.1 Setting

Under amendments to the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (USEPA) has classified air basins or portions thereof as either "attainment" or "non-attainment" for each criteria air pollutant, based on whether or not the national standards have been achieved. The California CAA, which is patterned after the federal CAA, also requires areas to be designated as "attainment" or "non-attainment" for the state standards. Thus, areas in California have two sets of attainment / non-attainment designations: one set with respect to the national standards and one set with respect to the state standards. The San Francisco Bay Area Air Basin (Bay Area) is currently designated as a nonattainment area for state and national ozone standards, state particulate matter (PM10 and PM2.5) standards, and federal PM2.5 (24-hour) standard.

The Bay Area Air Quality Management District (BAAQMD) is the regional air quality authority in the Project area. The BAAQMD requires any person or facility that puts in place, builds, erects, installs, modifies, modernizes, alters or replaces any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, to obtain written authorization from the BAAQMD in the form of an Authority to Construct and Permit to Operate (unless the source is specifically excluded or exempt from permit requirements).

The most recently adopted air quality plan for the San Francisco Bay Area is the *Bay Area 2010 Clean Air Plan* (BAAQMD, 2010). The 2010 Clean Air Plan (CAP) is an update to the BAAQMD 2005 Ozone Strategy to comply with State air quality planning requirements. The 2010 CAP also serves as a multi-pollutant air quality plan to protect public health and the climate. The 2010 CAP control strategy includes revised, updated, and new measures in the three traditional control measure categories, including stationary source measures, mobile source measures, and transportation control measures. In addition, the 2010 CAP identifies two new categories of control measures, including land use and local impact measures, and energy and climate measures.

The BAAQMD *CEQA Air Quality Guidelines* were adopted in 2010 and amended in 2011 to assist in the evaluation of air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and greenhouse gas emissions. In 2012, the Alameda County Superior Court ruled that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD *CEQA Air Quality Guidelines*. In August 2013, the First District Court of Appeal reversed the trial court's judgment and upheld the BAAQMD's *CEQA Guidelines*. However, an appeal is pending at the California Supreme Court. Although reliance on the 2011 thresholds is no longer required, local agencies still have a duty to evaluate impacts related to air quality and GHG emissions. In addition, CEQA grants local agencies broad discretion to develop their own thresholds of significance, or to rely on thresholds previously adopted or recommended by other public agencies or experts so long as they are supported by

substantial evidence. Accordingly, this analysis is based on the BAAQMD's 2011 thresholds to evaluate project impacts in order to protectively evaluate the potential effects of the project on air quality. Despite the court ruling, the science and reasoning contained in the BAAQMD 2011 *CEQA Air Quality Guidelines* provide the latest state-of-the-art guidance available, with substantial evidence included in the Thresholds Options and *Justification Report* developed by BAAQMD staff in 2009 (BAAQMD, 2009). For that reason, substantial evidence supports continued use of the BAAQMD 2011 *CEQA Air Quality Guidelines*.

For the purposes of this air quality analysis, sensitive receptors are defined as facilities and land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and daycare centers. Residential areas are also considered sensitive to poor air quality because people usually stay home for extended periods of time, which results in greater exposure to ambient air quality. There are no sensitive receptors (e.g., residences, schools) in the immediate vicinity of the Project area. The closest residences are located approximately 1 mile from the Project area. There are no hospitals, daycare centers, or long-term care facilities within 1 mile of the Project area. George Mayne Elementary School is located 0.95 mile southwest of the Project area. Jubilee Christian Center (including a church and a children's center/youth center) is located approximately 0.65 mile southwest of the Project area.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Sources*
3. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	1, 10
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	1, 10
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	1, 10
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	1, 10
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	1, 10

2.3.2 Discussion

a) **Less than Significant Impact.** For air quality plan consistency determinations, the BAAQMD recommends that agencies analyze the Project with respect to the following questions: (1) does the project support the primary goals of the air quality plan; (2) does the

project include applicable control measures from the air quality plan; and (3) does the project not disrupt or hinder implementation of any 2010 CAP control measures? If all the questions are concluded in the affirmative, BAAQMD considers the Project consistent with air quality plans prepared for the Bay Area (BAAQMD, 2011). Any project that would not support the 2010 CAP goals would not be considered consistent with the 2010 CAP, and if approval of the Project would not result in significant and unavoidable air quality impacts after the application of mitigation, then the Project would be considered consistent with the 2010 CAP.

As presented in the subsequent impact discussions, Project-related construction and operational emissions would not exceed the identified significance thresholds; therefore, the Project would support the primary goals of the 2010 CAP. As mentioned above, projects that incorporate all feasible air quality plan control measures are considered consistent with the 2010 CAP. There appear to be no 2010 CAP control measures that would be directly applicable to the proposed Project; however, implementation of the City's standard permit conditions (see checklist item b, below) would ensure that BAAQMD basic construction control measures would be implemented.

The Project would support the primary goals of the 2010 CAP and it would not disrupt or hinder implementation of any 2010 CAP control measures. Therefore, there would be no impact due to conflict with or obstruction of implementation of the applicable air quality plan.

b) **Less than Significant Impact**. This project entails the construction and operation of iron salt and polymer feed stations. Each station consists of a chemical storage tank, a concrete containment structure, a metal roof structure with open sides, and a receiving station to offload chemicals from delivery trucks. It also includes the pumps, piping, and instrumentation to dose and deliver the chemical solution to the incoming wastewater, as well as safety systems associated with chemical handling facilities, such as eyewash/shower stations.

Project-related air quality impacts fall into two categories: short-term potential impacts due to construction, and long-term potential impacts due to operation. First, during project construction (short-term), the Project would affect local particulate concentrations primarily due to fugitive dust sources and equipment exhaust. Under operations (long-term), the Project would result in a minimal increase in emissions primarily due to intermittent delivery truck trips of up to four trucks per week for ferric chloride and one truck per month for polymer. Based on the following, construction and operation of the Project would not result in a violation of an air quality standard or contribute significantly to an existing or projected air quality violation.

Construction

Criteria pollutant and precursor exhaust emissions of reactive organic gases (ROG), nitrogen oxides (NOx), respirable particulate matter (PM10), and fine particulate matter (PM2.5) from

construction equipment and vehicles would incrementally add to the regional atmospheric loading of these pollutants during construction of the Project. Impacts related to the Project contributing to an existing or projected air quality violation are judged by comparing estimated direct and indirect Project exhaust emissions to the significance thresholds, which for short-term construction emissions are 54 pounds per day for ROG, NOx, and PM2.5; and 82 pounds per day for PM10 (BAAQMD, 2011). Only the exhaust portion of PM2.5 and PM10 emissions are compared against the construction thresholds.

BAAQMD recommends that analyses focus on implementation of dust control measures rather than comparing estimated levels of fugitive dust to a quantitative significance threshold. Rather, BAAQMD considers implementation of BAAQMD-recommended basic mitigation measures for fugitive dust sufficient to ensure that construction-related fugitive dust is reduced to a less-than-significant level. The City has standard permit conditions designed to reduce environmental impacts of projects. For relatively small projects, such as the Project, the City and/or its construction contractor(s) are required by the BAAQMD to implement the BAAQMD's basic construction mitigation measures as defined below. Therefore, the dust-related construction impact would be less than significant.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 for development of the iron salt and polymer feed stations and are depicted below in **Table 2-1**. Project construction would run from 2016 to 2017 over a period of approximately 295 active working days. Equipment parameters were provided by the City and were incorporated into the model. Exported and imported volumes were estimated at 2,190 cubic yards and 1,318 cubic yards, respectively. Additional assumptions and information are included in **Appendix A**.

TABLE 2-1
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (pounds/day)[a]

Construction Phase	ROG	NOx	Exhaust PM10[b]	Exhaust PM2.5[b]
2016-2017 (Unmitigated Emissions)	3.8	21.2	1.3	1.2
BAAQMD Construction Threshold	54	54	82	54
Significant Impact?	No	No	No	No

[a] Emissions were modeled using the latest CalEEMod version. Additional information is included in Appendix A.
[b] BAAQMD's proposed construction-related significance thresholds for PM10 and PM2.5 apply to exhaust emissions only and not to fugitive dust.

As depicted in Table 2-1 above, impacts that would be associated with construction-related exhaust emissions would be less than significant. However, the BAAQMD recommends that projects implement a set of Basic Construction Mitigation Measures as best management practices regardless of the significance determination.

BAAQMD Basic Construction Mitigation Measures (Implementation Required by BAAQMD)

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Operation

Operational phase emissions would generated by intermittent delivery truck trips and would be minimal. At max usage, the Project would result in up to four trucks per week for ferric chloride and one truck per month for polymer deliveries. Operation of the iron salts and polymer feed stations are not anticipated to generate air pollutants. Operation of the project is also anticipated to reduce H_2S concentrations, as discussed in the Project Description, in order to enable the Facility to adhere to its existing BAAQMD permit.

c) **Less than Significant Impact.** Based on BAAQMD guidance, if a project would result in an increase in ROG, NOx, PM10, or PM2.5 of more than its respective daily mass thresholds, then it would also be considered to contribute considerably to a significant cumulative impact. In developing thresholds of significance for air pollutants, BAAQMD has considered the emission levels for which a project's individual emissions would be cumulatively considerable. Therefore, if a project would exceed the identified significance thresholds, its emissions would be cumulatively considerable, and if a project would not exceed the significance thresholds, its emissions would not be cumulatively considerable.

Emissions of Project-related criteria pollutants associated with short-term construction and long-term operational emissions would be less than the identified significance thresholds

and would not be considered to result in a significant contribution to existing air quality violations (see discussion for checklist item b, above). Therefore, the impact associated with short-term and long-term increases in criteria pollutant emissions would not be cumulatively considerable and associated impacts would be less than significant.

d) **Less than Significant Impact.** Long-term operations-related emissions of the Project would be associated with intermittent delivery trucks for the feed stations. In addition, the closest sensitive receptors are located at least 0.85 mile from the Project area. At this distance, the Project's emissions would be substantially diluted. The Project would also reduce H_2S emissions as described in the Project Description, sufficient to maintain compliance with the Facility's BAAQMD permits. Therefore, long-term operations-related impacts associated with exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

Construction activities would generate air pollutant emissions, including diesel particulate matter associated with equipment and heavy truck exhaust emissions. However, construction activities would occur over a period of approximately 295 working days. In addition, the closest sensitive receptors to the Project area are located at a distance of approximately 0.85 mile from the site. Therefore, Project -related construction emissions would be sufficiently diluted at the nearest sensitive receptor locations. Short-term construction-related impacts associated with the Project exposing sensitive receptors to substantial pollutant concentrations would be less than significant.

e) **Less than Significant Impact.** The Project would reduce hydrogen sulfide emissions and odors from operations of the San José/Santa Clara Regional Wastewater Facility (Facility). In addition, there are no odor sensitive receptors within close proximity to the Facility. Therefore, Project would not create objectionable odors affecting a substantial number of people.

2.3.3 References

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report California Environmental Quality Act Thresholds of Significance, October 2009.

Bay Area Air Quality Management District (BAAQMD), 2010. *Bay Area 2010 Clean Air Plan*, adopted September 15, 2010. Available at http://www.baaqmd.gov.

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*, revised May 2011.

2.4 Biological Resources

The approach to analysis for this Project is as follows: (1) review available biological resource surveys and relevant biological literature of the Project site and surrounding vicinity; (2) review special-status species lists derived from the California Natural Diversity Database (CNDDB), the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), and the California Native Plant Society (CNPS); and, (3) to perform a field reconnaissance of the Project site to record current conditions.

Previous Biological Resources Surveys and Relevant Biological Literature

Certain project sites in the vicinity of the Facility and Project area have been previously surveyed for biological resources, including special-status wildlife and flora, waters of the United States (U.S.) and of the State, and other sensitive natural communities. No focused special-status wildlife or plant surveys were performed for this Project analysis.

The following documents were reviewed and are referenced to support the analysis of potential environmental impacts of the project:

- San José / Santa Clara Regional Wastewater Facility Emergency Generators Project Initial Study[3]
- Emergency Generators Nesting Bird and Burrowing Owl Survey Results[4]
- Results of Top of Bank and Wetland Delineation, Iron Salts Feed Station, Technical Memorandum[5]
- San José / Santa Clara Water Pollution Control Plant Master Plan Draft EIR[6]
- Santa Clara Valley Habitat Plan[7]

Special-Status Species

Special-status species lists were derived from the CNDDB, USFWS, CDFW, and CNPS for the Milpitas, Mountain View, Calaveras Reservoir, Newark, Niles, La Costa Valley, Cupertino, San José East, and San José West 7.5-minute U.S. Geological Survey quadrangles. The primary sources of data referenced in support of this analysis are as follows:

[3] ESA | Jones and Stokes, 2013b. San José / Santa Clara Regional Water Facility Emergency Generators Project Administrative Initial Study. August 2013.

[4] ESA, 2015a.Emergency Generators Nesting Bird and Burrowing Owl Survey Results Technical Memorandum, City of San José / Santa Clara Regional Water Facility. Prepared February 12.

[5] ESA, 2015b. Results of Top of Bank and Wetland Delineation, Iron Salts Feed Station, City of San José / Santa Clara Regional Water Facility, Technical Memorandum. Prepared February 5.

[6] ESA | Jones and Stokes, 2013a, 2013. San José / Santa Clara Water Pollution Control Plant Master Plan DEIR. Prepared for the City of San José. January.

[7] ICF International, 2012. Final Santa Clara Valley Habitat Plan. Prepared for the City of Gilroy, City of Morgan Hill, City of San José, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August.

- Federal Endangered and Threatened Species that May be Affected by Projects in the Milpitas, Mountain View, Calaveras Reservoir, Newark, Niles, La Costa Valley, Cupertino, San Jose East, and San Jose West, California, U.S. Geological Survey 7.5-minute topographic quadrangles[8]
- CNDDB, Rarefind 5 computer program[9]
- CNPS, Online Inventory of Rare and Endangered Plants[10]
- Special Vascular Plants, Bryophytes, and Lichens List[11]
- Special Animals List[12]

Reconnaissance Survey

Biological resources within and surrounding the Project area, consisting of a relevant vicinity around the individual project sites, were verified by ESA biologists during field reconnaissance surveys conducted on February 27 and March 6, 2015. Prior to the reconnaissance survey, databases were reviewed for the Project area and surrounding vicinity. The field reconnaissance consisted of a pedestrian survey within the individual Project sites' boundaries where ESA biologists documented observations of the immediate and adjacent environments. The field surveys focused on identifying habitat for special-status plant and animal species. General habitat conditions were noted and incidental species observations were recorded.

The findings of the reconnaissance surveys, the literature review, and the database queries were used to compile the list of special-status species that may occur at the Project site (Tables 2.4-1 and 2.4-2, discussed in detail below) and to characterize the local Project setting.

2.4.2 Setting

Regional Setting

The project is located in the Bay Area–Delta Bioregion,[13] as defined by the State of California's Natural Communities Conservation Program. This bioregion consists of a variety of natural communities that range from the open waters of San Francisco Bay and Delta to salt and brackish marshes to grassland, chaparral, and oak woodlands. The temperate climate is Mediterranean, with relatively mild, wet

8 USFWS, 2015. Federal Endangered and Threatened Species that Occur in or May be Affected by Projects in the Milpitas*, Mountain View, Calaveras Reservoir, Newark, Niles, La Costa Valley, Cupertino, San Jose East, and San Jose West U.S. Geological Survey 7.5-minute Quadrangles. USFWS Endangered Species Division. http://www.fws.gov/sacramento/ES_Species/Lists/es_species_lists-form.cfm. Accessed March 4.

9 CDFW, 2015a. Natural Diversity Database Rarefind 5. Biogeographic Data Branch, Sacramento. Data dated March 3.

10 CNPS, 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, California. http://www.cnps.org/cnps/rareplants/inventory. Accessed March 4.

11 CDFW, 2015b. Natural Diversity Database. January 2015. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication. 125 pp.

12 CDFW, 2015c. Natural Diversity Database. January 2015. Special Animals List. Periodic publication. 50 pp.

13 A bioregion is an area defined by a combination of ecological, geographic, and social criteria and consists of a system of related interconnected ecosystems. The Bay-Delta bioregion is considered the immediate watershed of the Bay Area and the Delta, not including the major rivers that flow into the Delta. It is bounded on the north by the northern edge of Sonoma and Napa Counties and the Delta and extends east to the edge of the valley floor; on the south, it is bounded by the southern edge of San Joaquin County, the eastern edge of the Diablo Range, and the southern edge of Santa Clara and San Mateo Counties.

winters and warm, dry summers. The high diversity of vegetation and wildlife in the region is a result of soil, topographic, and microclimate variations, which combine to promote relatively high levels of endemism.[14] This, in combination with a long history of uses that have altered the natural environment and the increasingly rapid pace of development in the region, has endangered some of the local flora and fauna.

The San Francisco Bay-Delta is the second-largest estuary in the United States and supports numerous aquatic habitats and biological communities. It encompasses 479 square miles and includes shallow mudflats, tidal marshes, and open waters. The San Francisco Bay-Delta is an important wintering and migratory stopover site on the Pacific Flyway. More than 300,000 wintering waterfowl use the region.

Local Project Setting

The Project is located approximately 3,900 feet south of the southern reaches of the San Francisco Bay and associated salt marsh and mudflat habitats. Land use surrounding the Project site includes other Facility operations and undeveloped open space managed by the Facility. The Project includes the construction of two new chemical facilities, the Ferric Chloride Feed Station and Polymer Feed Station, which would be located at two separate locations within the Facility property (Figures 1-2 and 1-3).

Ferric Chloride Feed Station

The Ferric Chloride Feed Station project site is located along the southwestern margin of the existing Facility process area, southeast of the emergency overflow basin. Existing wastewater treatment facilities to the north of the Ferric Chloride Feed Station project site are separated by a non-natural drainage feature (the modified upper reach of the Artesian Slough Channel) with river red gum eucalyptus (*Eucalyptus camalulensis*) trees on drainage banks. A gravel road encircles the Ferric Chloride Feed Station Project site, a portion of which would be improved under the Project. Undeveloped open space consisting of non-native annual grassland occurs to the south and west.

Polymer Feed Station

The Polymer Feed Station project site is surrounded by existing wastewater treatment facilities on all sides, is located to the south of the Pump and Engine Building, and west of the East Primary Clarifiers. Pavement, a maintained, non-native grass lawn, and three planted trees of California native species that include a coast live oak (*Quercus agrifolia*), knob cone pine (*Pinus attenuata*), and Bishop pine (*Pinus muricata*) occur at the proposed Polymer Feed Station site, and would be removed under the Project.

[14] Endemism refers to the degree to which organisms or taxa are restricted to a geographical region or locality and thus are individually characterized as endemic to that area.

Vegetation Communities and Habitat Types

Non-native grassland. The undeveloped open space that occurs to the south and west of the Facility and the proposed Ferric Chloride Feed Station site is comprised of non-native grass and common weed species. Dominant species observed on the February 27 and March 6 reconnaissance surveys include Italian ryegrass (*Festuca perennis*), ripgut brome (*Bromus diandrus*), wild oat (*Avena barbata*), Bermuda grass (*Cynodon dactylon*), red-stemmed filaree (*Erodium cicutarium*), black mustard (*Brassica nigra*), prickly lettuce (*Lactuca serriola*), sheperd's purse (*Capsella bursa-pastoris*), bristly ox-tongue (*Helminthotheca echioides*), common mallow (*Malva neglecta*), perennial peppergrass (*Lepidium latifolium*), common knotweed (*Polygonum aviculare*), common fiddleneck (*Amsinckia menziesii* var. *intermedia*), and Russian thistle (*Salsola tragus*). ESA biologists observed California ground squirrel (*Otospermophilus beecheyi*) and established burrow complexes in the grasslands adjacent to the Ferric Chloride Feed Station project site. These undeveloped grasslands are also known to support western burrowing owl (*Athene cunicularia*), a CDFW species of special concern. ESA biologists observed western burrowing owls using burrows on the interior slopes of the emergency overflow basin and in the grasslands south of the Ferric Chloride Feed Station project site during the reconnaissance surveys. Other wildlife which commonly occur in this vegetation community include western fence lizard (*Sceloporus occidentalis*), alligator lizard (*Elgaria multicarinata*), gopher snake (*Pituophis catenifer catenifer*), white-crowned sparrow (*Zonotrichia leucophrys*), Botta's pocket gopher (*Thomomys bottae*), and deer mouse (*Peromyscus maniculatus*).

Non-native forest. A stand of river red gum eucalyptus trees occurs to the north of the Ferric Chloride Feed Station site. These mature, non-native trees provide roosting habitat for hunting raptors over the adjacent grasslands, and foraging habitat for songbirds such as yellow-rumped warbler (*Setophaga coronata*). These trees could also support a variety of nesting passerine and raptor species such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), and Anna's hummingbird (*Calypte anna*). Common tree-roosting bats may also roost under the bark of the eucalyptus trees and forage over the treatment ponds within the Facility.

Developed. The existing wastewater treatment Facility that surrounds the two Project sites supports various storage tanks, treatment ponds, and operations or administrative buildings and is mostly paved or graveled with little or poor quality supportive habitat for vegetation or wildlife. American crow and several species of gull (*Larus* sp.) were observed over the Facility ponds during the reconnaissance surveys and Canada geese (*Branta canadensis*) foraged on weedy vegetation on the fringe of existing wastewater treatment facilities near the Ferric Chloride Feed Station project site.

Wetlands and Other Waters

ESA biologists conducted a wetland delineation and top of bank determination for the Project on January 28, 2015 to identify jurisdictional limits of regulated wetlands and other waters of the U.S. and of the State in the vicinity of the proposed Project site. Two features of interest were surveyed: a remnant drainage area that possibly once functioned as a portion of the Artesian Slough Channel, located north of the Ferric Chloride Feed Station project site, and a large seasonal wetland,

located south of the Ferric Chloride Feed Station project site (**Figure 2.4-1**). ESA identified the top of bank of the remnant drainage area and the boundary corresponding to the limit of State regulatory authority over stream channels and streamside habitat. Similarly, the boundary of the seasonal wetland, also corresponding to the limit of jurisdictional waters of the State, was identified in the field using the Federal method for assessing jurisdictional wetlands. Neither site met the parameters of a jurisdictional wetland though Artesian Slough is potentially a federally jurisdictional other waters of the U.S.

Special-Status Species

A list of special-status plant and animal species that could occur in the vicinity of the Project area was compiled based on data described above in Approach to Analysis. **Table 2.4-1** and **Table 2.4-2** list special-status plants and animals, respectively, their preferred habitats and plant blooming periods, and their potential to occur in the Project area. **Figures 2.4-2** and **2.4-3** present special-status plant and animal occurrences, respectively, documented in the CNDDB database and in the vicinity of the Project area. Conclusions regarding habitat suitability and the potential for species occurrence within the Project area are based on the results described in previous studies, the wetland delineation and top of bank investigation on January 28, 2015, the reconnaissance surveys conducted by ESA on February 27 and March 6, 2015, and the analysis of existing literature and database queries described above.

It was then determined whether there is a low, moderate, or high potential for species occurrence within the Project area based on previous special-status species record locations and current site conditions. Only species with a moderate or high potential for occurrence are discussed further in this section. Species unlikely to occur within the Project area due to lack of suitable habitat or range were eliminated from the discussion (e.g. aquatic and salt-marsh specific plant and animal species which occur in specialized habitat north of the Project and outside the area of disturbance).

Special-Status Plants

No special-status plants were determined to have a moderate or high potential to occur on the Project site. Special-status plant species listed in Table 2.4-1 are considered to be absent or have a low potential to occur at the Project sites. No special-status plants were observed during the wetland delineation conducted on January 28, 2015 or on the biological resources reconnaissance surveys conducted on February 27 and March 6, 2015. Although these reconnaissance surveys do not constitute a detailed botanical inventory of the Project site and surrounding areas, the overall potential of the individual project sites to support special-status plants is considered low based on the lack of native plants and native vegetation communities and the presence of established populations of non-native and invasive weedy species on undeveloped areas and adjacent to the Project area. In addition, a review of historic aerial imagery of undeveloped portions of the Project area indicates disturbance associated with vehicles or equipment over the past several years. Evidence of recent disturbance reinforces the conclusion that special-status plants are unlikely to occur in the Project area[15].

[15] "San José/Santa Clara Regional Wastewater Facility." 37°25'39.53" N 121°56'48.09"W, GOOGLE EARTH. May 2011. March 13, 2015.

SOURCE: ESRI, 2015; ESA, 2015

San José / Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project. 131002.08

Figure 2.4-1

Potentially Jurisdictional Features

TABLE 2.4-1
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Astragalus tener var. *tener* Alkali milk-vetch	--/--/1B.2	Southern Sacramento Valley, northern San Joaquin Valley, east San Francisco Bay Area. Considered extirpated from Santa Clara County.	Alkali playas, on adobe clay in valley and foothill grassland, vernal pools on alkaline soils; below 60 meters above MSL. Blooms March - June	Low; may occur in the seasonal wetland located south of the Project area. There is no suitable habitat within the Project area.
Atriplex depressa Brittlescale	--/--/1B.2	Western and eastern Central Valley and adjacent foothills on west side of Central Valley	Alkaline clay soils in chenopod scrub, playas, valley and foothill grasslands, meadows and seeps and vernal pools on alkaline, clay soils; below 320 meters above MSL. Blooms April - October	Absent; there is no suitable habitat within the Project area.
Atriplex joaquiniana San Joaquin spearscale	--/--/1B.2	West edge of Central Valley from Glenn County to Tulare County. Also reported from Monterey and San Luis Obispo Counties	Alkaline soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland; below 835 meters above MSL. Blooms April - September	Absent; there is no suitable habitat within the Project area.
Atriplex minuscula Lesser saltscale	--/--/1B.1	Sacramento and San Joaquin Valley, Butte County and from Merced County to Kern County. Also recorded from Don Edwards NWR in Alameda County.	Sandy alkaline soils in chenopod scrub, playas, valley and foothill grassland; 15-200 meters above MSL. Blooms May - October	Absent; there is no suitable habitat within the Project area.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	--/--/1B.1	East San Francisco Bay Area, Salinas Valley, Los Osos Valley	Alkaline soils in annual grassland, on lower slopes, flats, and swales, sometimes on saline soils; below 230 meters above MSL. Blooms May - October	Absent; the species is documented in alkali grassland west of the Project area. Suitable habitat for this species does occur in the Project area; however, reconnaissance surveys conducted during blooming period for this species were negative.
Chorizanthe robusta var. *robusta* Robust spineflower	E/--/1B.1	Coastal central California, from San Mateo to Monterey County	Coastal bluff scrub, coastal dunes openings in cismontane woodland, on sandy soil. Blooms April - September	Absent; there is no suitable habitat within the Project area.
Chloropyron maritimum ssp. *palustre* Point Reyes bird's-beak	--/--/1B.2	Coastal northern California, from Humboldt to Santa Clara County, though presumed extirpated from Santa Clara County	Coastal salt marsh, tidal salt marsh; below 10 meters above MSL. Blooms June - October	Absent; there is no suitable habitat within the Project area.

TABLE 2.4-1 (Continued)
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

Scientific and Common Names	Status Federal/State/ CRPR	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Eryngium aristulatum var. *hooveri* Hoover's button-celery	--/--/1B.1	South San Francisco Bay area, South Coast Ranges in Alameda, San Benito, Santa Clara, and San Luis Obispo Counties, though presumed extirpated from Santa Clara County	Vernal pools; 3-45 meters above MSL. Blooms June - August	Low; may occur in the seasonal wetland located south of the Project area. There is no suitable habitat within the Project area.
Lasthenia conjugens Contra Costa goldfields	E/--/1B.1	Scattered occurrences in Coast Range valleys and southwest edge of Sacramento Valley, Alameda, Contra Costa, Monterey, Marin, Napa, Solano and Sonoma Counties. Presumed extirpated in Mendocino, Santa Barbara and Santa Clara Counties	Wet areas in cismontane woodland, valley and foothill grassland, vernal pools, alkaline playas or saline vernal pools and swales; seasonal wetlands below 470 meters above MSL. Blooms March - June	Absent; there is no suitable habitat within the Project area.
Malacothamnus arcuatus arcuate bush-mallow	–/–/1B.2	Santa Clara, Santa Cruz, and San Mateo Counties	Chaparral, between 15-355 meters above MSL. Blooms April - September	Absent; there is no suitable habitat within the Project area.
Malacothamnus hallii Hall's bush mallow	–/–/1B.2	Alameda, Contra Costa, Merced, Santa Clara, and Stanislaus Counties	Chaparral and coastal scrub between 30-2,500'. Blooms May - September	Absent; there is no suitable habitat within the Project area.
Navarretia prostrate Prostrate vernal pool navarretia	--/--/1B.1	Western San Joaquin Valley, interior South Coast Ranges, central South Coast, Peninsular Ranges: Alameda, Los Angeles, Merced, Monterey, Orange, Riverside, San Diego, and San Luis Obispo Counties.	Vernal pools and mesic areas in coastal scrub and alkali grasslands, seasonal wetlands in alkaline soils; between 15-700 meters above MSL. Blooms April - July	Absent; there is no suitable habitat within the Project area.
Suaeda californica California seablite	E/--/1B.1	Morro Bay, San Luis Obispo County, and San Francisco and Contra Costa Counties; historically found in the south San Francisco Bay.	Margins of tidal salt marsh; below 15 meters above MSL. Blooms June - October	Absent; there is no suitable habitat within the Project area.
Trifolium hydrophilum (*T. depauperatum* var. *hydrophilum*) Saline clover	--/--/1B.2	Sacramento Valley, central western California.	Salt marsh, mesic alkaline areas in Valley and foothill grasslands, vernal pools, marshes and swamps; below 300 meters above MSL. Blooms April - June	Low; may occur in the seasonal wetland located south of the Project area or in the upper reaches of Artesian Slough. Suitable habitat does not occur in areas that would be disturbed by the Project.

TABLE 2.4-1 (Continued)
SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE PROJECT REGION

NOTES:

Potential Occurrence in the Project area:
High = Species is expected to occur and habitat meets species requirements.
Moderate = Habitat is only marginally suitable or is suitable but not within species geographic range.
Low = Habitat does not meet species requirements as currently understood in the scientific community.

Status Codes:
Federal
E = listed as endangered under the ESA
T = listed as threatened under the ESA
– = no listing

State
E = listed as endangered under CESA
T = listed as threatened under CESA
– = no listing

SOURCE: CNPS, 2015; USFWS, 2015; CDFW, 2015a; CDFW, 2015b.

California Rare Plant Rank (CRPR):
Rank 1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B = Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A = Plants presumed extirpated in California, but more common elsewhere.
Rank 2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 = Plants about which we need more information – a review list
Rank 4 = Plants of limited distribution – a watch list

An extension reflecting the level of threat to each species is appended to each rarity category as follows:
.1 – Seriously endangered in California.
.2 – Fairly endangered in California.
.3 – Not very endangered in California.

TABLE 2.4-2
SPECIAL-STATUS ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Invertebrates				
Branchinecta conservatio Conservancy fairy shrimp	E/--	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	Absent; Project area is outside of the species' known range.
Euphydryas editha bayensis Bay checkerspot butterfly	T/--	Disjunct occurrences in San Mateo and Santa Clara Counties.	Associated with specific host plants that typically grow on serpentine soils.	Absent; there is no suitable habitat for this species, as there are no serpentine soils in the Project area.
Lepidurus packardi Vernal pool tadpole shrimp	E/--	Shasta County south to Merced County.	Vernal pools and ephemeral stock ponds.	Absent; there is no suitable habitat in the Project area.
Amphibians				
Ambystoma californiense California tiger salamander	T/T	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Sonoma County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	Low; suitable habitat occurs in the annual grassland within the Project area and suitable breeding habitat occurs in the seasonal wetland that inconsistently ponds for a short period of time annually; however there are no documented occurrences of this species within 4.5 miles of the Project area.
Rana draytonii California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County.	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods	Absent; there is no suitable habitat in the Project area.
Reptiles				
Emys marmorata Western pond turtle	–/SSC	The western pond turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. Nests are typically constructed in upland habitat within 0.25 mile of aquatic habitat.	Absent; there is no suitable habitat in the Project area.
Masticophis lateralis euryxanthus Alameda whipsnake	T/T	Restricted to Alameda and Contra Costa Counties; fragmented into 5 disjunct populations throughout its range	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging	Absent; marginal habitat is present in the annual grasslands adjacent to the Project; however the Project area is outside of the known range for this species.

TABLE 2.4-2 (Continued)
SPECIAL-STATUS ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Mammals				
Reithrodontomys raviventris Salt marsh harvest mouse	E/E	The San Francisco Bay Estuary and Suisun Marsh.	Saline to brackish salt marsh habitat.	Absent; there is no suitable habitat in the Project area.
Sorex vagrans halicoetes Salt-marsh wandering shrew	-/SSC	Southern arm of the San Francisco Bay in San Mateo, Santa Clara, Alameda, and Contra Costa Counties.	Salt marshes from 6 to 9 feet above mean sea level (MSL).	Absent; there is no suitable habitat in the Project area.
Vulpes macrotis mutica San Joaquin kit fox	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	Absent; outside of known range and there is no suitable habitat in the Project area.
Birds				
Agelaius tricolor Tricolored blackbird	--/SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	Low (foraging only); may occur over the Project area on a transient basis. There is no suitable nesting habitat in the Project area.
Aquila chrysaetos Golden eagle	--/ FP	Foothills and mountains throughout California. Uncommon non-breeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Low (foraging only); may occur over the Project area on a transient basis. There is no suitable nesting habitat in the Project area.
Ardea herodias Great blue heron (rookery)	--/--	Nests in suitable habitat throughout California except at higher elevations in Sierra Nevada and Cascade mountain ranges.	Widely distributed in freshwater and calm-water intertidal habitats.	Low (foraging only); may occur over the Project area on a transient basis. There is no known rookery in the Project area.
Athene cunicularia hypugaea Western burrowing owl	--/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	High (foraging and breeding); western burrowing owl is known to forage and breed in the non-native grassland south and west of the Project area. Burrowing owls were observed during the Project reconnaissance surveys.

TABLE 2.4-2 (Continued)
SPECIAL-STATUS ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Birds (cont.)				
Charadrius alexandrines nivosus Western snowy plover	T/SSC	Population defined as those birds that nest adjacent to or near tidal waters, including all nests along the mainland coast, peninsulas, offshore islands, and adjacent bays and estuaries. Twenty breeding sites are known in California from Del Norte to Diego County	Coastal beaches above the normal high tide limit in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent	Absent; there is no suitable habitat in the Project area.
Circus cyaneus Northern harrier	--/SSC	Occurs throughout lowland California. Has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands	Low (foraging only); northern harrier is documented in the ruderal areas immediately south and west of the Project area and has the potential to forage in the Project area.
Elanus leucurus White-tailed kite	--/CFP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border.	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Moderate (foraging and nesting); white-tailed kite may forage in open grasslands within and adjacent to the Project area. Suitable nesting habitat is present in the mature river red gum eucalyptus trees of the Project area.
Falco mexicanus Prairie falcon	--/--	Permanent resident in the south Coast, Transverse, Peninsular, and northern Cascade Ranges, the southeastern deserts, Inyo-White Mountains, foothills surrounding the Central Valley, and in the Sierra Nevada in Modoc, Lassen, and Plumas Counties. Winters in the Central Valley, along the coast from Santa Barbara County to San Diego County, and in Marin.	Nests on cliffs or escarpments, usually overlooking dry, open terrain or uplands	Low (foraging only); prairie falcon has the potential to forage within the Project area. Suitable nesting habitat is not present within the Project area.
Falco peregrines anatum American peregrine falcon	--/E, CFP	Permanent resident along the north and south Coast Ranges. May summer in the Cascade and Klamath Ranges and through the Sierra Nevada to Madera County. Winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations	Low (foraging only); American peregrine falcon has the potential to forage within the non-native grassland and other open habitat within the Project area. Suitable nesting habitat is not present within the Project area.

TABLE 2.4-2 (Continued)
SPECIAL-STATUS ANIMALS WITH POTENTIAL TO OCCUR IN THE PROJECT VICINITY

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Project Area
Birds (cont.)				
Geothlypis trichas sinuosa Saltmarsh common yellowthroat	--/SSC	Found only in the San Francisco Bay Area in Marin, Napa, Sonoma, Solano, San Francisco, San Mateo, Santa Clara, and Alameda Counties	Freshwater marshes in summer and salt or brackish marshes in fall and winter; requires tall grasses, tules, and willow thickets for nesting and cover	Low; may occur over the Project on a transient basis. There is no suitable habitat in the Project area.
Melospiza melodia pusillula Alameda song sparrow	--/SSC	Found only in marshes along the southern portion of the San Francisco Bay	Brackish marshes associated with pickleweed; may nest in tall vegetation or among the pickleweed	Absent – there is no suitable habitat in the Project area.
Pelecanus occidentalis californicus California brown pelican	D/E	The Pacific coast from Canada through Mexico.	Coastal areas. Nests on islands. Occasionally along Arizona's lakes and rivers.	Low; may occur over the Project on a transient basis. There is no suitable habitat in the Project area.
Rallus longirostris obsoletus Ridgway's (=California clapper) rail	E/CFP	Found along the Pacific Coast in Monterey and San Luis Obispo Counties.	From tidal mudflats to tidal sloughs	Absent; there is no suitable habitat in the Project area.
Sternula antillarum browni California least tern	E/E	Found along the Pacific Coast of California from San Francisco to Baja California	Nest on open beaches kept free of vegetation by natural scouring from tidal action	None; there is no suitable habitat in the Project area.

NOTES:

Potential Occurrence in the Project area:
High = Species is expected to occur and habitat meets species requirements.
Moderate = Habitat is only marginally suitable or is suitable but not within species geographic range.
Low = Habitat does not meet species requirements as currently understood in the scientific community.

Status Codes:
Federal
E = listed as endangered under the ESA
T = listed as threatened under the ESA
– = no listing
State
E = listed as endangered under CESA
T = listed as threatened under CESA
SSC = California Department of Fish and Wildlife designated "species of special concern"
CFP = California Department of Fish and Wildlife designated "fully protected"
– = no listing

SOURCE: USFWS, 2015; CDFW, 2015a; CDFW, 2015c.

CNDDB version March 2015. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Details on documented locations of special-status species is withheld by CNDDB due to the sensitivity of the information.

SOURCE:ESRI, 2015; ESA, 2015

Figure 2.4-2

Special-Status Plant Occurrences in the Project Vicinity

CNDDB version March 2015. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Details on documented locations of special-status species is withheld by CNDDB due to the sensitivity of the information.

SOURCE: ESRI, 2015; ESA, 2015

San José / Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project. 131002.08

Figure 2.4-3

Special-Status Animal Occurrences in the Project Vicinity

Special-Status Animals

The following special-status animals were determined to have a moderate potential to occur in or next to the Project area:

- Western burrowing owl (*Athene cunicularia*)
- Other resident and migratory birds

Breeding Birds

Fish and Game Code Sections 3503 and 3503.5, and the Migratory Bird Treaty Act protect raptors and passerines and their eggs and nests from incidental "take[16]". These protections apply to special-status birds identified in Table 4.2-2 and other resident or migratory birds that may occur in the project area.

Western burrowing owl (*Athene cunicularia*), a California species of special concern, is a California resident that prefers open annual or perennial grasslands and disturbed sites with existing burrows, elevated perches, large areas of bare ground or low vegetation, and few visual obstructions. Ground squirrel colonies often provide a source of burrows and are typically located near water and areas with large numbers of prey species, primarily insects. Breeding takes place between March and August, with a peak in April and May. Breeding burrowing owls are documented to the south, southwest, and southeast of the Project area in annual grasslands where suitable burrows for nesting are prevalent, and where ongoing vegetation management activities are aimed at enhancing burrowing owl habitat. Foraging and nesting is highly likely in undeveloped annual grasslands adjacent to the proposed Ferric Chloride Feed Station project site.

Other resident and migratory birds. Several birds could nest within the Project area in trees, shrubs, and on buildings or in adjacent suitable habitat. Raptors such as white-tailed kite (*Elanus leucurus*), a CDFW fully protected species, red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), Cooper's hawk (*Accipiter cooperi*), and great horned owl (*Bubo virginianus*) may nest in mature river red gum eucalyptus on the bank of Artesian Slough Channel. Additional native birds that may nest in the Project area include European starling (*Sturnus vulgaris*), black phoebe (*Sayornis nigricans*), house finch, Anna's hummingbird, mourning dove, and white-crowned sparrow.

[16] The FESA defines the term "take" as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC §1532(19).

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Sources*
4. BIOLOGICAL RESOURCES — Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	1, 2, 8, 9
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐	1, 2, 8
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐	1, 2, 8
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐	1, 2
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	1, 2
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐	1, 2, 9

2.4.3 Discussion

a) **Less than Significant with Mitigation.** Land cover within the Project area includes non-native annual grassland and developed areas. No special-status plants are anticipated to occur within the Project area due to the lack of supportive vegetation communities required for the regional species listed in Table 2.4-1, above. Special-status animals with potential to occur in the Project area or its vicinity include golden eagle, western burrowing owl, northern harrier, white-tailed kite, prairie falcon, American peregrine falcon, and other resident and migratory birds protected under the Migratory Bird Treaty Act and California Department of Fish and Game Code. With the exception of the burrowing owl and white-tailed kite, none of these raptors are known to breed in the vicinity of the Project due to lack of suitable nest sites for these species, or the Project is located outside of their known breeding range; therefore, they are only expected to forage over the Project area. Other raptors and smaller passerines could nest in trees, shrubs, or buildings within the Project or surrounding vicinity.

b) Construction activities, especially those that involve ground disturbance and the use of heavy machinery, may affect nesting birds including special-status birds which may occur in the Project area. The addition of lighting associated with the construction and operation of new facilities may also result in adverse effects on breeding birds. The loss of any active nest or disruption of nesting efforts would be considered a potentially significant impact. Implementation of **Mitigation Measures BIO-1** through **BIO-3** would ensure that potential impacts are mitigated to a less- than-significant level.

Mitigation Measure BIO-1: Preconstruction Surveys for Nesting Birds.

If Project construction is scheduled during breeding bird season (February 1–August 31), a qualified wildlife biologist the City shall retain a qualified biologist to conduct a survey for nesting raptors and migratory bird nests within 7 days of the start of construction or after any construction breaks of 14 days or more. Surveys shall be performed for the Project area and for suitable habitat within 300 feet. If an active nest is identified, a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, or nests identified on Facility buildings, the nest itself) shall be established. The no-disturbance zone shall be marked with flagging or fencing that is easily identified and avoided by the construction crew. In general, the minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, they may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer widths may be modified based on discussion with CDFW. Buffers shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest.

Construction activities that are scheduled to begin before the breeding season (i.e., begin between September 1 and January 31) can proceed without surveys. Optimally, all necessary tree and vegetation removal should be conducted before the start of breeding bird season (generally between February 1 and August 31) to minimize the opportunity for birds to nest in the Project area and conflict with Project constriction activities.

Mitigation Measure BIO-2: Minimize Light Pollution.

Lights at each development site (during construction and operation) will be directed downward and shielded where necessary to ensure that no fugitive light spills out into natural lands and interferes with typical avian behavior.

Burrowing owl is known from numerous occurrences immediately south, southwest, and southeast of the Project area[17], and suitable burrow nesting sites were identified during the reconnaissance surveys in these annual grasslands beyond the proposed Ferric Chloride Feed Station site. The existing Facility is located along the border but just outside of Santa Clara Valley Habitat Plan (SCVHP or Habitat Plan) boundary. The proposed Ferric Chloride Feed Station would be built within the SCVHP permit area and within areas designated as

[17] CDFW, 2015a. Natural Diversity Database Rarefind 5. Biogeographic Data Branch, Sacramento. Data dated March 3.

occupied nesting burrowing owl habitat[18]. Project implementation, particularly construction activities associated with the Ferric Chloride Feed Station, may result in adverse effects on foraging or breeding burrowing owls in occupied adjacent areas. Implementation of Mitigation Measure BIO-3: Burrowing Owl Protection Measures, would ensure that potential impacts are mitigated to a less-than-significant level. The following mitigation measure is consistent with the SCVHP conditions for western burrowing owl. Any modifications to the SCVHP burrowing owl conditions that are adopted by the Habitat Agency between publication and Project implementation shall be incorporated into the mitigation measure.

Mitigation Measure BIO-3: Burrowing Owl Protection Measures.

To avoid or minimize direct impacts of Project activities on western burrowing owls, the City shall ensure the following procedures are implemented consistent with the SCVHP. This survey methodology is consistent with accepted survey protocols for this species[19].

1. Habitat Survey

a) Western burrowing owl habitat surveys will be required in the Project area in all SCVHP modeled occupied habitat. Surveys are not required in sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Modeled habitat types may change throughout the permit term based on the best available scientific data. Habitat surveys are required in both breeding and non-breeding seasons.

b) Qualified biologist(s) shall conduct a pedestrian survey of the Project area and accessible areas within 250-feet of the Project area. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be no more than 50 feet and can be reduced to account for differences in terrain, vegetation density, and ground surface visibility. The biologist shall map areas with burrows or burrow complexes that could support burrowing owls and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement).

c) Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 150 feet wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons.

d) If suitable habitat is identified during the habitat survey, and if the Project does not fully avoid impacts to the suitable habitat, preconstruction surveys will be required. Suitable habitat is fully avoided

[18] ICF International, 2012. Final Santa Clara Valley Habitat Plan. Prepared for the City of Gilroy, City of Morgan Hill, City of San José, County of Santa Clara, Santa Clara Valley Transportation Authority, and Santa Clara Valley Water District. August.

[19] The California Burrowing Owl Consortium, 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

if the project footprint does not impinge on a 250-foot buffer around the suitable burrow.

2. Preconstruction Surveys

e) A qualified biologist shall conduct preconstruction surveys in all suitable habitat identified in the habitat surveys within 250 feet of construction activity, between 14 and 4 days prior to initiating ground disturbance related to Project construction activities. The 250-foot buffer zone is surveyed to identify burrows and owls outside of the Project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. As burrowing owls may recolonize a site after only a few days, time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted no more than 2 days prior to ground disturbance to ensure absence. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed).

f) The preconstruction survey will last a minimum of 3 hours and will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites.

3. Avoidance Measures

The City will employ avoidance measures described below to avoid direct take of individual burrowing owls during Project construction.

Breeding Season Avoidance Measures - February 1 to August 31

a) If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the Project area during the breeding season, the Project proponent will avoid all nest sites that could be disturbed by Project construction activities during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot no-disturbance buffer zone around active nest sites by a qualified biologist.

b) If avoidance of active nests site is not feasible, construction may occur within 250 feet of active nest sites if 1) the nest is not disturbed, and 2) the Project proponent develops and implements an Avoidance, Minimization, and Monitoring Plan, subject to approval by CDFW the Habitat Agency overseeing the SCVHP. The plan shall incorporate the following criteria:

   i. A qualified biologist monitors the owls for at least 3 days prior to Project construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.

ii. If there is any change in owl nesting and foraging behavior as a result of Project construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.

iii. If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the no disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from CDFW.

Non-Breeding Season Avoidance Measures – September 1 to January 31

a) If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the Project area during the non-breeding season the Project proponent will establish a 250-foot no-disturbance buffer around occupied overwintering burrows as determined by a qualified biologist.

b) If avoidance of occupied burrows is not feasible, construction may occur within 250 feet of overwintering burrows sites if:

i. A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).

ii. The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.

iii. If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.

iv. If the owls are gone for at least one week, the Project proponent may request approval from the SCVHP Habitat Agency for qualified biologist to excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the no-disturbance buffer zone can be removed and construction may continue. Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

4. Construction Monitoring and Environmental Training

During construction, the no-disturbance buffer zones will be established and maintained where applicable and based on the Project Avoidance, Minimization, and Monitoring Plan. A qualified biologist will monitor the site consistent with the requirements described in the *Avoidance Measures*, above to ensure that buffers are enforced and owls are not disturbed. The qualified biological monitor will prepare and perform an environmental training for all Project personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

5. Passive Relocation

If avoidance measures described above are not feasible under the Project, Passive Relocation may be implemented according to the protocol described in the SCVHP and in coordination with, and approval by CDFW.

c) **Less than Significant with Mitigation.** The Ferric Chloride Feed Station project site is located immediately south of the uppermost reach of a remnant drainage area, which may be a remnant of the historic Artesian Slough Channel. ESA biologists delineated this feature on January 15, 2015 in order to determine the jurisdictional limits of various state and regulatory authorities (see Figure 2.4-1). Typical CDFW jurisdiction under Section 1600 of the California Department of Fish and Game Code is within the "Top of Bank" boundaries of a stream channel; however, CDFW may assert regulatory authority over activities that affect fish and wildlife habitat associated with the stream which would increase their jurisdictional boundary. The Project would not directly impact the remnant drainage area nor would it remove any of the river red gum eucalyptus trees located along the channel banks. Implementation of Mitigation Measure BIO-4: Avoidance and Protection of Jurisdictional Waters, would reduce indirect Project impacts on the Artesian Slough Channel to a less-than-significant level. No other riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service occur on the Project or would be adversely affected by Project activities.

Mitigation Measure BIO-4: Avoidance and Protection of Jurisdictional Waters.

Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional features. Where work will occur on the Project adjacent to state and federal jurisdictional waters, protection measures shall be applied to protect these features. These measures shall include the following:

1. A protective barrier (such as silt fencing) shall be erected around water features adjacent to the Project at the "top of bank" or at the feature boundary to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance;

2. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities;

3. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of the City has inspected and approved the protection fencing; and

4. The City shall ensure that the temporary fencing is continuously maintained until the Project is completed.

5. Drainage from all proposed facilities where chemical spills could occur during Project operation shall be directed away from sensitive resources and/or include other measures to minimize potential for release of potential pollutants to the environment.

c) **Less than Significant with Mitigation.** Potentially jurisdictional waters of the U.S. and State occur adjacent to the Ferric Chloride Feed Station site and may be temporarily or permanently impacted during Project implementation. Project construction activities such as grading and excavation would generate loose, erodible soils which could result in erosion or siltation into the remnant drainage area north of the Ferric Chloride Feed Station site, or the seasonal wetland south of the site. In the case of soil erosion or an accidental release of deleterious materials during construction, the Project could impact water quality. However, as described in Section 2.9, Hydrology and Water Quality, the City would be required to apply for Project coverage under the Construction General Permit to comply with federal NPDES regulations, and would be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of stormwater runoff generated from the Project site(s). Preparation and implementation of the SWPPP would maintain the potential for degradation of water quality in wetlands and other jurisdictional waters at a less-than-significant level; however, Project construction activities also could introduce other activities that may have a significant indirect impact on adjacent other waters. Implementation of Mitigation Measure BIO-4: Avoidance and Protection of Jurisdictional Waters, would reduce such impacts to a less-than-significant level.

d) **Less than Significant with Mitigation.** The Project area is currently within the greater San José/Santa Clara Regional Wastewater Facility fence. As such no significant wildlife movement and no known migratory corridors occur within the Project area; therefore, no impacts to wildlife movement or migratory corridors would occur. Breeding bird nests and burrows (i.e. wildlife nursery sites) which may be disrupted by Project activities are discussed under checklist item a, and potential adverse effects resulting from Project development are reduced through the implementation of Mitigation Measure BIO-1: Preconstruction Surveys for Nesting Birds, Mitigation Measure BIO-2: Minimize Light Pollution, and Mitigation Measure BIO-3: Burrowing Owl Protection Measures.

e) **Less than Significant with Mitigation.** The City of San José Tree Ordinance requires a Tree Permit Adjustment for the removal of any tree on industrial properties, and offers additional protections to trees measuring 56 inches in circumference or greater when measured two feet above ground level (City of San José Municipal Code Section 13.32.020 I). Trees protected under the ordinance are referred to as "Ordinance Trees". The Project would result in the removal of three mature trees of native species located within the proposed Polymer Feed Station project site. ESA biologist measured the circumference of the three trees at the proposed Polymer Feed Station project site during the reconnaissance site visit on February 27, 2015 and each tree to be removed would qualify as an Ordinance Tree. The Project will be required to conform to the City's tree ordinance, and the City will provide replacement trees in conformance with the policy. Typical mitigation is planting four 24-inch box trees for each tree removed; however, final mitigation required is subject to approval by the Director of Planning. Implementation of Mitigation Measure BIO-5: Compensation for Removal of Protected Trees, would reduce Project impacts associated with removal of Ordinance Trees to a less-than-significant level.

Mitigation Measure BIO-5: Compensate for Removal of Protected Trees.

The three trees to be removed in support of the Polymer Feed Station are of native species whose circumferences' are each greater than 18 inches when measured at two feet above the ground. The trees will be replaced on-site or off-site, in consultation with the City Arborist, at the accepted ratios or pay an in-lieu fee to Our City Forest to compensate for the loss of the three trees. Protected trees that are lost as a result of the Project will be replaced at a minimum of four 24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Director of Planning, who will determine the final mitigation for impacts to protected trees. Replacement trees can be planted in a suitable location on Facility property or on other City property, to be identified by the City and approved by the Director of Planning.

f) **Less than Significant with Mitigation.** As shown in Figure 2.4-4, portions of the Project are located within the SCVHP boundary area, within Land Cover Fee Zone A (for Ranchlands and Natural Lands). Project development would result in the loss of land designated under the Habitat Plan as ranchlands or natural lands, result in a loss of occupied burrowing owl breeding and foraging habitat, and potentially cause take of individual burrowing owls. Through the SCVHP and its implementing entity the Habitat Agency, the City can apply for coverage under the Habitat Plan federal and state permits for Project-specific impacts to species included under the Habitat Plan. As the Project is located in designated fee zones for both ranchlands and natural lands relevant to burrowing owl, the Project may apply for permit coverage under the SCVHP and pay the associated fees to the Habitat Agency. In addition to paying the burrowing owl fee, specific avoidance measures outlined in the Habitat Plan shall be conditions of the Project. Mitigation Measure BIO-3, Burrowing Owl Protection Measures, incorporates conditions described in the Habitat Plan; therefore, the Project is consistent with the SCVHP. No other SCVHP covered species would be impacted by the Project.

2.5 Cultural Resources

2.5.1 Setting

Cultural resources include architectural resources, archaeological resources, and human remains. Paleontological resources include fossilized remains of vertebrate and invertebrate organisms, fossil tracks and trackways, and plant fossils. This section provides an assessment of potential impacts on cultural and paleontological resources that might be present in the vicinity of the proposed Iron Salt Project. Mitigation measures to reduce impacts to a less-than-significant level are identified.

Background Research

Environmental Science Associates (ESA; environmental consultant to the City for the Master Plan EIR and this Project) completed a cultural resources study for the Master Plan.[20] That study, which included the proposed Iron Salt Project area, provided background research, a surface survey, and an analysis of the potential for cultural resources to be present in the WPCP Facility. Research included a records search at the Northwest Information Center of the California Historical Resources Information System on August 1, 2011 (File No. 11-0118) and updated on November 5, 2014 (File No. 14-0594). Previous surveys, studies, and archaeological site records were reviewed. Records were also examined in the Historic Property Data File for Santa Clara County, which contains information on locations of recognized historical significance including those evaluated for listing in the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), the California Inventory of Historic Resources, California Historic Landmarks, and California Points of Historical Interest. The purpose of the records search was to (1) determine whether known cultural resources have been recorded within or adjacent to the Project area and a 1-mile radius; (2) assess the likelihood for unrecorded cultural resources to be present based on historical references and the distribution of nearby sites; and (3) develop a context for the identification and evaluation of cultural resources.

Historical Resources

The WPCP Facility was originally constructed in 1956 with major alterations and additions through the late 1970s. The 1950s-era facilities are now of a sufficient age that they could be considered historical resources if other criteria apply, such as significant associations with historical events, people, or architectural styles or master architects/engineers, and if sufficient integrity remains to convey such associations (if any). Based on the analysis completed for the Master Plan, there are no buildings or structures within the Facility that have been previously identified as a historical resource as stated in CEQA Guidelines Section 15064.5, or as a City of San José Landmark. The Facility as a whole has been altered substantially within the last 35 years and does not qualify as a historic district due to a lack of physical integrity. Two buildings (the Pump & Engine building and the Training Center) largely retain their original appearance and with additional research and upon further review may qualify as historical resources or a City Landmark; however, the currently

[20] ESA, San José/Santa Clara Water Pollution Control Plant Master Plan Cultural Resources Survey Report. Prepared for City of San José Planning Division, March 2012.

proposed Iron Salts Project would not impact either of these buildings, as they would be located approximately 1,400 and 1,600 feet to the north.

Archaeological Resources and Human Remains

Six archaeological resources have been recorded within the 1-mile records search radius; all six are prehistoric occupation sites with midden soils, fire-affected rock, faunal remains, and/or Native American artifacts. At least two of the sites are known to contain human burials. None of these resources are located within the Iron Salts Project area; the nearest is approximately ½-mile to the east.

The general Project vicinity is mapped as Holocene-age alluvium, which consists of primarily fine-grained sands, silt, and mud that have been deposited by the creeks and streams of the region as they discharge into the bay. This geologic formation has a high potential to contain buried "paleosols" or surfaces that would have once been available for human use and occupation prior to being covered by naturally occurring sediment deposits. Numerous deeply buried sites have been uncovered in the Santa Clara Valley, at depths varying between 1 and more than 10 feet below the current ground surface. In fact, more than 60 percent of the recorded archaeological sites in this region have been found in a buried context.[21] The Iron Salts Project area is in an area disturbed from previous impacts related to the construction and operation of the Facility including the existing Wet Weather Retention Basin and the Emergency Basin Overflow Structure. Geotechnical boring logs record imported or reworked fill ranging from 3.5 to 11.5 feet in depth throughout the greater Facility.[22] For the Iron Salts Project, the depth of ground disturbance would be approximately three feet deep and would therefore be conducted almost entirely within artificially deposited and disturbed fill. Therefore, despite the general sensitivity of the Project vicinity for deeply buried archaeological resources, there appears to be a low possibility of encountering intact paleosols with cultural materials during activities within the Iron Salts Project area.

Paleontological Resources

The Project area overlies young Holocene-age geologic units. Beneath a cap of 3.5 to 11.5 feet of artificial fill lies deposits of mud and silt associated with the present-day bay estuary (bay mud) and the distal edges of alluvial fans. Excavation would be confined to within two feet of the ground surface. Artificially deposited fill and young Holocene-age geologic units do not have the potential to contain paleontological resources. For these reasons, in accordance with Society of Vertebrate Paleontology[23] standards, there is a very low paleontological potential within the emergency generator Project area.

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[21] Meyer, Jack, and Jeffrey Rosenthal, Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4. Prepared for Caltrans District 4, 2007.

[22] CH2M Hill, Well Construction Application and Well Completion Report Geologic Boring Logs, SCVWD Permit No. 92W1663. 1985.

[23] Society of Vertebrate Paleontology (SVP). Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines, Society of Vertebrate Paleontology News Bulletin, Vol. 163, p. 22–27. 1995.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
5. CULTURAL RESOURCES — Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒	1, 2
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	1, 2
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒	1, 2
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	1, 2

2.5.2 Discussion

a) **No Impact.** CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as a building, structure, site, object, or district (including landscapes) listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. The following discussion will focus on architectural and structural resources. Archaeological resources, including archaeological resources that are potentially historical resources according to Section 15064.5, are addressed below.

Based on the analysis above provided under the subheading "Historical Resources", the proposed Project would result in no impacts to historical resources or cultural landscapes. The proposed Iron Salts Facility would be constructed between approximately 1,400 and 1,600 feet from potentially eligible historical resources at the WPCP, and would have no direct or indirect effects upon them. As such, no mitigation is required.

b) **Less than Significant with Mitigation.** This section discusses archaeological resources, both as historical resources according to Section 15064.5 as well as unique archaeological resources as defined in Section 21083.2(g).

Based on the analysis above provided under the subheading "Archaeological Resources and Human Remains", the proposed Project has a low potential for uncovering archaeological resources. While unlikely, given the general sensitivity of the Project vicinity, the inadvertent discovery of archaeological resources cannot be entirely discounted. In the event that archaeological resources are encountered during Project construction the following mitigation measure would reduce impacts to a less-than-significant level.

Mitigation Measure CUL1: Accidental Discovery of Archaeological Resources.

If discovery is made of items of historic or archaeological interest, the City's contractor shall immediately cease all work activities in the vicinity (within approximately

100 feet) of the discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include the remains of stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation the contractor shall immediately contact the City. The contractor shall not resume work until authorization is received from the City.

Any inadvertent discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If it is determined that the Project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA *Guidelines*, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, the archaeologist shall develop a treatment plan in consultation with the City and appropriate Native American representatives (if the find is of Native American origin).

c) **No Impact.** Based on the above analysis, the Project would result in no impacts to paleontological resources. No mitigation is required.

d) **Less than Significant with Mitigation.** There is no indication that the Project area has been used for burial purposes in the recent or distant past. In the unlikely event of the discovery of human remains during Project construction, the following mitigation measure from the Master Plan would reduce impacts to a less-than-significant level.

Mitigation Measure CUL2: Accidental Discovery of Human Remains.

Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

2.6 Geology, Soils, and Seismicity

2.6.1 Setting

The Project is located near southern end of the San Francisco Bay, which is within the geologically complex California Coast Ranges geomorphic province.[24,25] The Coast Ranges province is characterized by a series of northwest-trending ridges and valleys that run roughly parallel to the San Andreas fault zone, and can be further divided into the northern and southern ranges that are separated by the San Francisco Bay. The San Francisco Bay lies within a broad depression created from an east-west expansion between the San Andreas and the Hayward fault systems. The tectonic forces that dominate the region developed from the margin between the Pacific Plate and the North American Plate where the Pacific Plate slowly creeps northward past the North American Plate on the San Andreas, Hayward, and associated subsidiary faults.

Topography on the Facility site is largely flat, gently sloping from an elevation of 13 feet above mean sea level (msl) at the southwest corner of the site, to 11 feet msl at the northwestern corner, and 10 feet msl at the southeastern corner. The Project area have been historically underlain by artificial fills. Fill may be engineered or non-engineered material, and both may occur on site or in the vicinity of the Project. Artificial fill on site and in the general area of the Facility central and southern operational area ranges in depth from about 5 to 10 feet.

The native soils underlying the Project area and their vicinity have a moderate shrink-swell potential due to the presence of saturated clays with high plasticity. However, shrink-swell potential on site is expected to be more limited due to the historic placement of fill several feet of fill material as noted above.

The Project lies within a region of California that contains many active and potentially active faults and is considered an area of high seismic activity. It is estimated that the Bay Area as a whole has a 63 percent chance of experiencing an earthquake of magnitude 6.7 or higher before 2036.[26] The individual faults posing the greatest threat to the Bay Area, including the Project, are the Hayward-Rodger's Creek fault and the San Andreas faults. Other principal faults capable of producing significant earthquakes in the general vicinity of the Project area include the Calaveras, Concord–Green Valley, Marsh Creek–Greenville, and the San Gregorio faults. However, the Project area is not located on or immediately adjacent to any active faults.

[24] California's geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landforms with unique, defining features based on geology, faults, topographic relief, and climate.
[25] California Geological Survey. *California's Geomorphic Provinces*, CGS Note 36, 2002.
[26] U.S. Geologic Survey. *Forecasting California's Earthquakes—What Can We Expect in the Next 30 Years?*, Prepared by Edward H. Field, Kevin R. Milner, and the 2007 Working Group on California Earthquake Probabilities, USGS Fact Sheet 2008-3027.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
6. GEOLOGY, SOILS, AND SEISMICITY — Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☒	☐	1, 2, 6
ii) Strong seismic ground shaking?	☐	☐	☒	☐	1, 2
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	1, 2
iv) Landslides?	☐	☐	☒	☐	1, 2
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	1, 2
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐	1, 2
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐	1, 2
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	1, 2

2.6.2 Discussion

a.i) **Less than Significant Impact.** No Alquist-Priolo zones are mapped on the Project area or in their vicinity. Additionally, the City of San José Fault Hazard Map does not identify any fault hazard zones on site or in the immediate vicinity of the Project area.[27] The potential for rupture of an unknown fault on the Project sites is considered remote.

a.ii, iii) **Less than Significant Impact.** As noted above, the Project area is located within a seismically active region. As a result, the proposed facilities, including the proposed tanks, pumps, and various other Project features, could be subject to strong seismic ground shaking, seismic failure, or liquefaction during an earthquake. Strong seismic shaking could occur as a result of seismic activity along any of the faults noted above. However, the Project would incorporate standard engineering and construction techniques related to seismicity, in

[27] URS Corporation. Final Report, Geotechnical Investigation, Advanced Recycled Water Treatment Facilities, Santa Clara Valley Water District, San José, California, prepared for Black & Veatch, June 2009.

accordance with the requirements of the California and Uniform Building Codes for Seismic Zone 4. Adherence to these practices and requirements would minimize potential impacts of strong seismic ground shaking, seismic-related ground failure, and liquefaction on site.

a.iv) **Less than Significant Impact.** The Project area has limited topographic relief, with elevations on site spanning a differential of less than 10 feet. Therefore, potential for landslides on the sites, including seismically induced landslides, is considered remote.

b) **Less than Significant Impact.** Project construction would involve demolition of existing facilities as well as ground disturbance during minor on site grading. In the event of a rain storm, erosion on site could occur, with sediment from the Project area becoming entrained in stormwater runoff from the site. However, potential for erosion and loss of sediment from the site during construction would be minimized via adherence to applicable permitting requirements, as discussed in greater detail for Checklist Item c in Section 2.1.9, Hydrology and Water Quality. Additionally, soils on the sites would be stabilized near the end of the construction process, and the proposed facilities (which would include primarily paved surfaces) are not expected to be subject to substantial erosion or topsoil loss.

c) **Less than Significant Impact.** As noted previously, the Project area have relatively flat topography and are composed of at least 5 feet of fill dirt, underlain by alluvial sediments. Therefore, landslides, liquefaction, subsidence, and soil collapse are not anticipated on the sites. As noted previously, potential for liquefaction to affect the proposed facilities would be minimized via adherence to standard engineering and construction techniques related to seismicity, in accordance with the requirements of the California and Uniform Building Codes for Seismic Zone 4.

d) **Less than Significant Impact.** Although native soils underlying the Project area may have moderate shrink-swell potential, this potential is limited due to the placement of fill on the sites, where the fill is anticipated to have limited shrink-swell potential. Additionally, adherence to standard engineering and construction techniques in accordance with the requirements of the California and Uniform Building Codes would further minimize potential effects of expansive soils on the Project sites.

e) **No Impact.** The Project would not utilize septic systems or other alternative disposal systems for the disposal of wastewater. Therefore, no impact would occur.

2.7 Greenhouse Gas Emissions

2.7.1 Setting

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters the atmosphere from space and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect, or climate change, are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect.

With regard to impacts from GHGs, both BAAQMD and the California Air Pollution Control Officers Association (CAPCOA) consider GHG impacts to be exclusively cumulative impacts; therefore, assessment of significance is based on a determination of whether the GHG emissions from a project represent a cumulatively considerable contribution to the global atmosphere. This analysis uses both a quantitative and a qualitative approach. This analysis considers that, because the quantifiable thresholds developed by BAAQMD in its 2009 Justification Report were formulated based on AB 32 and California Climate Change Scoping Plan reduction targets for which its set of strategies were developed to reduce GHG emissions statewide. A project cannot exceed a numeric BAAQMD threshold without also conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs (the state Climate Change Scoping Plan). Therefore, if a project exceeds a numeric threshold and results in a significant cumulative impact, it would also result in a significant cumulative impact with respect to plan, policy, or regulation consistency, even though the project may incorporate measures and have features that would reduce its contribution to cumulative GHG emissions.

Separate thresholds of significance are established for operational emissions from stationary sources (such as generators, furnaces, and boilers) and non-stationary sources (such as on-road vehicles). As no threshold has been established for construction-related emissions, the operational emissions thresholds are applied in this analysis. The threshold for stationary sources is 10,000 metric tons of carbon dioxide equivalents (CO_2e) per year (i.e., emissions above this level may be considered significant). For non-stationary sources, three separate thresholds have been established:

- Compliance with a Qualified Greenhouse Gas Reduction Strategy (i.e., if a project is found to be out of compliance with a Qualified Greenhouse Gas Reduction Strategy, its GHG emissions may be considered significant); or
- 1,100 metric tons of CO_2e per year (i.e., emissions above this level may be considered significant); or

- 4.6 metric tons of CO_2e per service population per year (i.e., emissions above this level may be considered significant). (Service population is the sum of residents plus employees expected for a development project.)

If the project construction or operational GHG emissions would exceed this threshold then, consistent with BAAQMD Guidelines, it would be considered to have a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact on climate change.

Notably, in 2011, the City adopted the Envision San José 2040 General Plan (General Plan). As part of the General Plan update, the City adopted a Greenhouse Gas Reduction Strategy (City of San Jose, 2011) in accordance with the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5. The GHG Strategy identifies policies and measures to reduce GHG generation within the City.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
7. GREENHOUSE GAS* EMISSIONS — Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	1, 10
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	1, 10
* Note: GHGs include, but are not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride					

2.7.2 Discussion

a) **Less than Significant Impact**. In regards to short-term construction of the project, the worse-case year of construction activities would generate approximately 278 metric tons (MT) CO_2e (see Appendix A, CalEEMod annual output data). Construction emissions would be minimal. Long-term operations would also result in a minimal increase in GHG emissions, associated with electricity to power small pumps and control panels, as well as intermittent delivery trucks. At max usage, the Project would result in up to four trucks per week for ferric chloride and one truck per month for polymer deliveries. Construction and operational emissions would not exceed the BAAQMD thresholds of 1,100 MT CO_2e/year or 10,000 MT CO_2e/year, and would result in a less than significant cumulative impact.

As described above, the City recently adopted the Envision San José 2040 General Plan, which focuses on creating urban centers that provide mixed-use settings for new housing and job growth that are pedestrian, bicycle, and transit-oriented. The mixed-use land use concept reduces GHG emissions by placing land uses closer together and, as a result, decreases vehicle miles traveled. The City has also adopted a GHG Strategy that includes policies and measures to reduce GHG emissions. Adoption of a GHG Strategy provides environmental clearance for GHG impacts of proposed development as per the BAAQMD CEQA Guidelines (BAAQMD, 2011) and CEQA Guidelines Section 15183.5. Project evaluation in light of City requirements is provided for through an evaluation of Project conformance with the City's GHG Reduction Strategy.

In order to conform to the GHG Reduction Strategy, projects must be consistent with the Land Use/Transportation assumptions and incorporate applicable features into the Project that meet the mandatory implementation policies. Based on a review of Project components and proposed operation scenarios, in light of the GHG Reduction Strategy, the Project would be consistent with the Land Use/Transportation assumptions and would reduce energy consumption in the secondary treatment process of the Facility. Additionally, construction related Project emissions would be limited due to its relatively limited construction intensity. Therefore, based on a review of anticipated Project emissions in comparison to the City's GHG Strategy and the BAAQMD CEQA Guidelines, the Project is expected to be consistent with the General Plan and GHG Strategy.

b) **Less than Significant Impact**. The Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, since the proposed Project would not exceed the BAAQMD GHG thresholds and is consistent with the City's General Plan that includes implementation of a GHG Reduction Strategy. The impact would be less than significant.

2.7.3 References

Bay Area Air Quality Management District (BAAQMD), 2011. *CEQA Air Quality Guidelines*, revised May 2011.

City of San Jose, 2011. Greenhouse Gas Reduction Strategy for the City of San Jose, June 2011.

2.8 Hazards and Hazardous Materials

2.8.1 Setting

Hazardous Materials in Soil and Groundwater

This discussion of the potential presence of hazardous materials at the Project area is based on the results of regulatory agency database searches using the California State Water Resources Control Board (SWRCB) GeoTracker database[28] and the California Department of Toxic Substances Control (DTSC) EnviroStor database,[29] and review of prior documentation completed for the Facility in support of the Master Plan EIR. The GeoTracker database includes the following hazardous materials site lists: leaking underground storage tank (LUST) cleanup sites; spills, leaks, investigation and cleanup (SLIC) sites; permitted underground storage tank (UST) facilities; land disposal sites; military cleanup sites; and other cleanup sites. The EnviroStor database includes: federal Superfund; state response; voluntary cleanup; school cleanup; and hazardous waste corrective action. The Facility and nearby landfill facilities were identified by the database searches. The Facility was included on hazardous material site lists by multiple regulatory agencies, including the cleanup and voluntary cleanup lists. The adjacent landfill facilities are listed on the land disposal site lists. Based on the records search and listed locations of the sites, as well as a review of previously compiled information in support of the Plant Master Plan EIR, the Project area do not contain any hazardous materials sites. The San José Police Department operates a bomb disposal facility within the inactive biosolids lagoons area, located to the north of the Project area.

Wildfire Hazards

Based upon fire hazard mapping by the CAL FIRE Forest Resource Assessment Program[30] and the Santa Clara County Wildland Urban Fire Interface Map,[31] the Project area is not located within an area identified as a high fire hazard area.

Airports

The nearest airports to the Project are the Norman Y. Mineta San José International Airport, located approximately 4 miles south of the Project area and the Moffett Federal Airfield, located approximately 5 miles west of the Project area. No private airstrips occur in the Project vicinity.

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[28] State Water Resources Control Board, GeoTracker database, available online at http://geotracker.swrcb.ca.gov, Accessed February 27, 2015.

[29] California Department of Toxic Substances (DTSC) Control EnviroStor database, http://envirostor.dtsc.ca.gov. Accessed February 27, 2015.

[30] California Department of Forestry and Fire Protection, Fire and Resource Assessment Program, Fire Hazard Severity Zones in State Responsibility Areas, Santa Clara County, California. November 7, 2007. http://frap.fire.ca.gov/data/frapgismaps-sra_map_download.php. Accessed February 27, 2015; California Department of Forestry and Fire Protection, Fire and Resource Assessment Program, Very Fire Hazard Severity Zones in Local Responsibility Areas, Santa Clara County, California. May 2008. http://frap.cdf.ca.gov/webdata/maps/santa_clara/fhszl_map.43.pdf. Accessed February 27, 2015.

[31] Santa Clara County Planning Office, *Santa Clara County Wildland Urban Interface Fire Area*, Adopted February 24, 2009.

Emergency Response

The Santa Clara County Operational Area Emergency Operations Plan[32] establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of response in the event of an emergency. The plan does not identify specific emergency response or evacuation routes.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
8. HAZARDS AND HAZARDOUS MATERIALS — Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	1, 2
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	1, 2
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	1, 2
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐	1, 2
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	1
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	1
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	1, 2
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐	1, 2

[32] Santa Clara County, 2008, *Santa Clara County Operational Area Emergency Operations Plan*, March 18, 2008, available online at http://www.sccgov.org/sites/oes/Documents/EOP_Complete.pdf

2.8.2 Discussion

a) **Less than Significant Impact.**

Project construction could involve the routine use of small quantities of hazardous materials commonly used during construction activities such as fuels, lubricants, paints, and degreasers. Storage and use of hazardous materials at the construction sites could result in the accidental release of small quantities of hazardous materials, which could degrade soil, groundwater, and surface water within the Project area.

However, the Project would be subject to the requirements of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, and treatment requirements of the Facility NPDES Permit (Please refer to Section 2.9, Hydrology and Water Quality, for additional discussion of these permits). Adherence to the conditions of these permits would be required under state and federal law. Permit conditions would require implementation of best management practices (BMPs) to minimize the risk of a hazardous materials release during construction activities. The BMPs would include protection measures for the temporary on site storage of fuel and other hazardous materials used during construction, including requirements for secondary containment and berming to prevent any such release from reaching an adjacent waterway or stormwater collection system. All equipment and materials storage would need to be routinely inspected for leaks, and records maintained for documenting compliance with the storage and handling of hazardous materials. Thus, potential adverse effects related to the routine use and possible release of hazardous construction chemicals into the environment would be minimized.

Project operation would involve the routine use of chemicals for the ferric chloride and polymer feed stations. The chemicals storage and handling would be performed in compliance with applicable state and federal hazardous materials regulations.[33] While not anticipated as part of routine Project operations, it is possible that an unexpected upset or accident resulting in a chemical release could occur. The proposed ferric chloride and polymer storage tanks would be situated within a containment basin, as required by hazardous materials storage tank regulations. These design features would minimize the potential impact of accidental releases. Further, because potential hazardous materials releases into the site storm drain system would be diverted to the Facility treatment system, the potential for significant environmental impacts would be low.

b) **Less than Significant with Mitigation.**

Impact HAZ-1: A number of prior releases of hazardous materials have also occurred at the existing Facility, near but not within the Project area. However, the extent of contaminated soils may not be known with certainty. Therefore, excavation anywhere within the Project area could potentially result in the encounter of contaminated soils. As a result, the potential

[33] A number of regulations would be applicable including those promulgated by the Operational Safety and Health Administration (OSHA) Title 29 CFR 1910, the California Aboveground Petroleum Storage Act, the California Business Plan Act, Cal/OSHA requirements, and policies and requirements implemented through the Santa Clara County Department of Environmental Health.

exists for workers to encounter hazardous materials in the soil during construction of the proposed Project facilities. Any hazardous materials encountered in excavated soil or groundwater during Project construction could result in a release to the environment, which could potentially expose construction workers and plant workers to hazardous materials and chemical vapors. Depending on the nature and extent of any contamination encountered, adverse health effects and nuisance vapors could result if proper precautions are not taken. Contaminated soil or groundwater could also require disposal as a hazardous waste. The Project would not affect or disturb the existing bomb disposal facility, which is located north of the Project sites.

Because existing contamination could expose workers to hazardous materials, and/or could result in a reasonably foreseeable release of hazardous materials into the environment, this impact is considered potentially significant.

Mitigation Measures: Implementation of the following mitigation measures would reduce this impact to a less-than-significant level by requiring preparation of a Soil And Groundwater Management Plan to ensure appropriate management of soil and groundwater encountered during construction.

Mitigation Measure HAZ-1a: Pre-Construction Hazardous Materials Assessment.

Prior to issuance of grading permits for Project construction, the City or its contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and/or groundwater quality. The City shall conduct a site assessment including potential testing of soil and/or groundwater, and if testing reveals soil and/or groundwater concentrations that exceed applicable regulatory screening levels, the City shall contact the Santa Clara County Department of Environmental Health (SCCDEH) or Regional Water Quality Control Board (RWQCB), as appropriate, to secure regulatory oversight.

The work plan will establish the sampling and laboratory analysis program which may include the following: analysis of subsurface soil samples within the Project area for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and VOCs or any other chemicals of concern to evaluate the potential presence of contamination; groundwater samples if subsurface excavations are anticipated to require dewatering;. and additional analyses for VOCs and SVOCs for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills.

The results of the hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b and the Soil and Groundwater Management Plan prepared in accordance with Mitigation Measure HAZ-1c to determine whether: specific soil and groundwater management and disposal procedures for contaminated materials are required; excavated soils are suitable for reuse; and construction worker health and safety procedures for working with contaminated materials are required. If the pre-construction hazardous materials assessment identifies the presence of soil and/or groundwater contamination at

concentrations in excess of applicable regulatory screening levels (Environmental Screening Levels [ESLs] or California human health screening levels [CHHSLs]) for proposed site use, the City shall complete site assessment and remedial activities required by the regulatory agency to ensure that residual soil and/or groundwater contamination, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment.

Mitigation Measure HAZ-1b: Health and Safety Plan.

The City shall require the construction contractor to retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction of the individual projects. The HASP shall include the following information.

- Results of sampling conducted in accordance with Mitigation Measure HAZ-1a.
- All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations.
- Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP.
- The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall direct procedures to be followed in the event that an unanticipated hazardous materials release with the potential to impact health and safety is encountered. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release; notifying SCCDEH and retaining a qualified environmental firm to perform sampling, remediation, and/or disposal.
- Documentation that HASP measures have been implemented during construction.

- Provision that submittal of the HASP to the City, or any review of the contractor's HASP by the City, shall not be construed as approval of the adequacy of the contractor's health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all laws, rules, and regulations applicable to health and safety during the performance of the construction work.

Mitigation Measure HAZ-1c: Soil and Groundwater Management Plan.

If ground-borne hazardous materials are identified under the Pre-Construction Hazardous Materials Assessment, the City shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan, subject to review by the City, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan shall include the following information.

- Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility.
- Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.
- Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method to analyzed groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods.

c) **No Impact.** There are no schools within 0.25-miles of the Project area; therefore, there would be no impact related to this criterion.

d) **Less than Significant Impact with Mitigation.**

Impact HAZ-2: While the Project area themselves are not listed on a regulatory agency list of hazardous materials sites, it is possible that contaminated soil or groundwater could occur due to adjacent hazardous materials site listings. As discussed above under criterion b, contaminated soil or groundwater could be encountered during excavation and grading for

Project construction, potentially exposing construction workers, the public, and/or the environment to hazardous materials. This impact is considered potentially significant.

Mitigation Measures: By adhering to applicable hazardous materials regulations, and with implementation of **Mitigation Measures HAZ-1a** through **HAZ-1c,** the potential impact of Project siting on a known hazardous waste site would be less than significant.

Implement Mitigation Measures HAZ-1a through **HAZ-1c**.

e) **No Impact.** The nearest airports to the Project is the Norman Y. Mineta San José International Airport, located approximately 4 miles south of the Project area and the Moffett Federal Airfield, located approximately 5 miles west of the Project area. Because the Project area is more than 2 miles from an airport, and because implementation of the Project would not involve the construction of towers greater than two stories and would not interfere with air traffic, there would be no impact related to safety hazards in the vicinity of an airport.

f) **No Impact.** Similarly, there are no private airstrips within 2 miles of the Project area; therefore, there would be no impact related to this criterion.

g) **No Impact.** Santa Clara County does not have an adopted emergency response plan or emergency evacuation plan that designates specific emergency response or evacuation routes within the Project area; therefore, no impact would occur.

h) **Less than Significant Impact.** The Project area is not within a high fire hazard area and, in the unlikely event of a fire, the potential to expose people or structures to a significant risk involving fires is low. The use of construction equipment and the possible temporary on site storage of fuels and/or other flammable construction chemicals could pose an increased fire risk resulting in injury to workers or the public during construction. In the event that a fire were to spread to the existing bomb disposal facility located north of the Project sites, a hazardous condition could occur. However, contractors would be required to comply with hazardous materials storage and fire protection regulations, which would minimize potential for fire creation, and ensure that the risk of hazards related to fires during construction would be less than significant.

Compliance with existing safety regulations and widely-accepted industry standards would minimize the hazard to the public and the environment. The local fire agency would be responsible for enforcing the provisions of the fire code. Furthermore, the Project area is not within a high fire hazard area and, in the unlikely event of a fire, the potential to expose people or structures to a significant risk is low. Therefore, this impact would be less than significant.

2.9 Hydrology and Water Quality

2.9.1 Setting

Environmental Setting

The San Francisco Bay Area, including the Project area, experiences a Mediterranean climate characterized by mild, wet winters and dry, warm summers. The South Bay typically receives about 90 percent of its precipitation in the fall and winter months, with the greatest average rainfall occurring in January. The average annual rainfall in the counties surrounding the South Bay is approximately 20 inches, although the actual rainfall can be highly variable due to El Niño (wet) and La Niña (dry) years and the influence of local topography.

The nearest surface waters to the Project area include Coyote Creek and Guadalupe River, as well as sloughs, marshes, and ponds associated with the southern margin of the Bay. Stormwater drainage within the Central Facility Area is provided by existing infrastructure, which collects stormwater and routes it into the existing headworks of the Facility for treatment. Existing drainage within and adjacent to the portions of the Project area located outside of the Central Facility Area drain, via overland flow, into a localized/remnant drainage feature that is located north of the proposed Ferric Chloride Feed Station area. Drainage in this area flows through a series of on-site basins and, during very large storm events, discharges into the southern San Francisco Bay.

As shown in **Figure 2.9-1**, the Project would be located entirely within a 100-year flood zone, defined by the Federal Emergency Management Agency (FEMA), as an area having a 1-percent annual chance of occurrence for flooding.

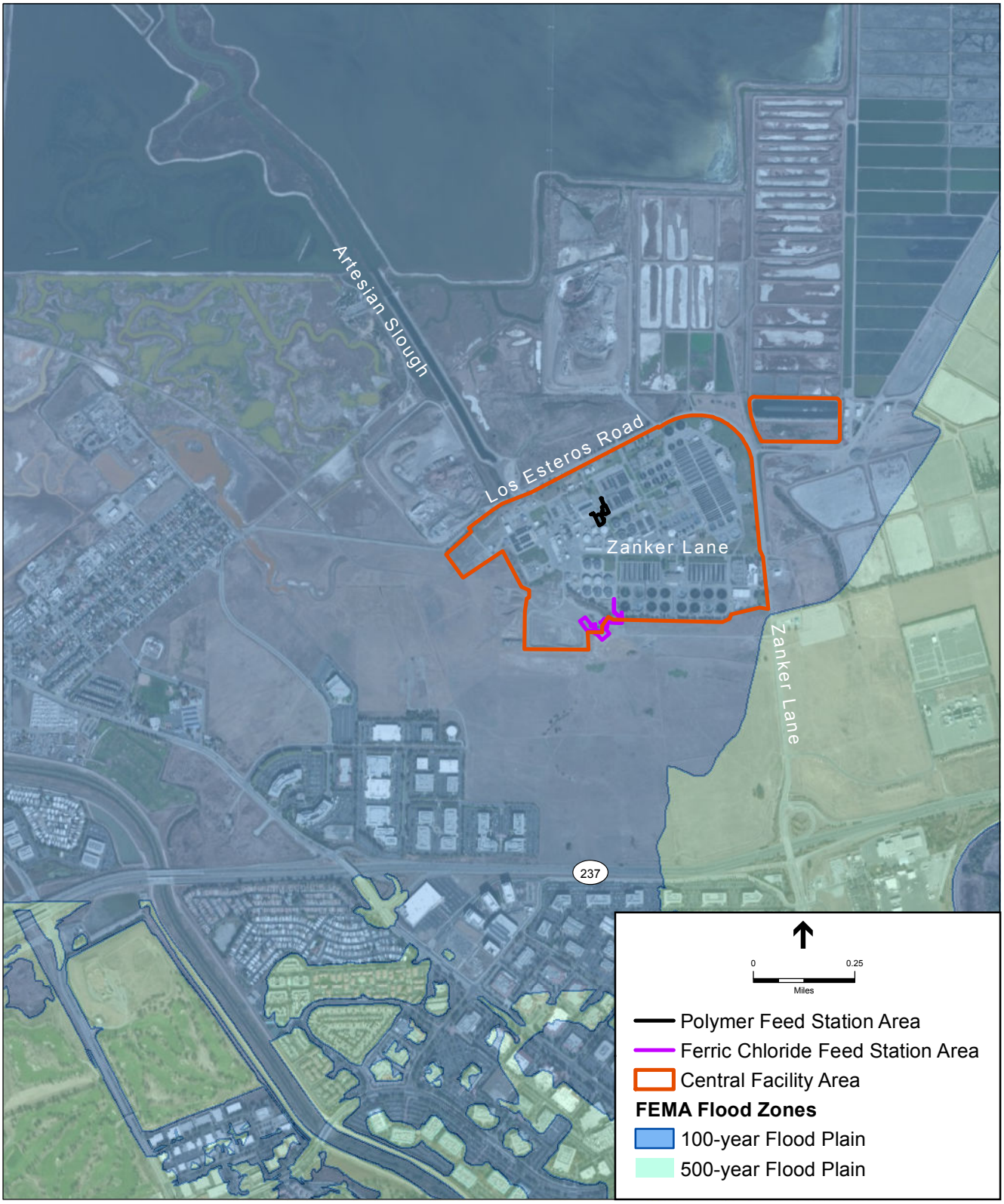
The Project overlays the groundwater aquifer of the Santa Clara Valley Groundwater Basin. The aquifer is generally characterized by alternating layers of impermeable Bay mud and permeable alluvial sand and gravel deposits. Groundwater in the Basin is generally recharged in upland areas and flows down toward the Bay. Monitoring data from the nearby Zanker Road Landfill indicate that groundwater levels alternate seasonally, from approximately -2 to -6 feet NAVD88, corresponding to as approximately 10 to 15 feet below ground in the vicinity of the Project.[34]

Regulatory Setting

NPDES General Permit for Discharges of Stormwater Associated with Construction Activities

Construction activities disturbing 1-acre or more of land are subject to the permitting requirements of the NPDES General Construction Activity Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires

[34] Golder Associates, 2006, Second Semi-Annual Water Quality Monitoring Report and 2005 Annual Summary, Zanker Materials Processing Facility, January; Golder Associates, 2006, Winter 2005/Spring 2006 and 2005 Annual Self-Monitoring Program Report Zanker Road Class III Landfill. San José, California, April.



SOURCE: FEMA, 2009; ESRI, 2013

San José/Santa Clara Regional Wastewater Iron Salt Feed Station IS/MND . 131002.08

Figure 2.9-1
FEMA Flood Zones

the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which must be completed before construction begins, as well as implementation of various other water quality control measures and BMPs. Implementation of the SWPPP starts with the commencement of construction and continues through the completion. Upon completion, the applicant must submit a Notice of Termination to the RWQCB notifying the agency that construction is completed.

Regulatory Setting

NPDES General Permit for Discharges of Stormwater Associated with Construction Activities

Construction activities disturbing 1-acre or more of land are subject to the permitting requirements of the NPDES General Construction Activity Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which must be completed before construction begins, as well as implementation of various other water quality control measures and BMPs. Implementation of the SWPPP starts with the commencement of construction and continues through the completion. Upon completion, the applicant must submit a Notice of Termination to the RWQCB notifying the agency that construction is completed. San Francisco Bay Region Municipal Regional Stormwater NPDES Permit

In 2009, the San Francisco Bay RWQCB issued a regional NPDES permit (NPDES Permit Order R2-2009-0074, NPDES Permit No. CAS612008) for stormwater consolidating requirements for all Bay Area municipalities and flood control agencies that discharge directly to the San Francisco Bay. Some provisions require regional action and collaboration, but others relate to specific municipal activities over which the municipalities have individual responsibility and control. Pursuant to permit conditions, actions that create, add, or replace 10,000 square feet or more of impervious surface area are required to control post-development stormwater runoff through source control, site design, and treatment control BMPs. Additional requirements must be met by certain large Projects that create one acre or more of impervious surfaces.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
9. HYDROLOGY AND WATER QUALITY — Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	1, 2
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	1, 2

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
9. HYDROLOGY AND WATER QUALITY — Would the project:					
c) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐	1, 2
d) Substantially alter the existing drainage pattern of a site or area through the alteration of the course of a stream or river, or by other means, substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐	1, 2
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	1, 2
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	1, 2
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	1, 2
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒	1, 2, 11
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐	1, 2
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐	1, 2

2.9.2 Discussion

a, c, f) **Less than Significant Impact.** Construction of the proposed Project would involve the use of heavy construction machinery on site, including for the grading or leveling of soils, excavation, installation of Project components, and decommissioning/removal of existing facilities as relevant. These activities could result in potential for the accidental release of sediment and construction related water quality pollutants from the Project area. For example, during storms, surface soils and sediment loosened during the construction process could become entrained in stormwater, resulting in erosion on site, increases in sediment loading off site, and potential for sedimentation downstream. Other construction-related water quality pollutants could also become entrained in stormwater, including pollutants associated with heavy construction equipment such as oils, greases, fuels, antifreeze, and other lubricants, as well as other construction related pollutants such as cement wash-out or construction related debris. If entrained in stormwater, these pollutants could be carried off site and affect downstream waters.

Potential water quality pollution during the Project's operation could occur as a result of stormwater runoff from impervious surfaces, or as a result of accidental spills of chemicals, fuel, oils, lubricants, and other potential water quality pollutants associated with maintenance and operation of the proposed facilities. These pollutants could become entrained in stormwater and could thereby be released from the Project area, degrading water quality downstream.

Potential construction and operation period water quality degradation would, however, be avoided via existing and proposed stormwater drainage design and treatment, and via adherence to applicable permit conditions. With respect to drainage design and treatment, under existing conditions, stormwater runoff at the Polymer Feed Station and pipelines located within the bermed areas containing the central Facility is collected and routed into the Facility headworks for subsequent treatment within that facility's wastewater treatment process. Water quality pollutants from these areas would be minimized through the Facility's treatment process. Remaining areas, including the Ferric Chloride Feed Station and vicinity, currently drain into adjacent drainage areas. Runoff from small to moderate sized storms is routed into these drainage areas, and eventually evaporates. During major storm events, stormwater collected in the drainage areas to the north of the Ferric Chloride Feed Station may overtop a series of weirs and constructed berms, with stormwater thereby flowing northwest along the margin of the existing Facility, and eventually discharging into the San Francisco Bay.

With respect to applicable permit conditions, the proposed ground disturbance activities for both new feed stations combined totals approximately 31,900 sqft, which is less than 1-acre. Therefore, the Project would be subject to the requirements of the San Francisco Bay Region Municipal Regional Stormwater NPDES Permit. This permit would require the implementation of construction period BMPs designed to reduce and minimize construction related stormwater pollution, construction and operation period water quality monitoring for all discharges, and implementation of various industrial site controls designed to minimize and reduce the emission of polluted stormwater from the Project area. The City would be bound to comply with these requirements under state law, and adherence to these requirements during project construction and operation would ensure that potential impacts to water quality would be minimized.

b) **Less than Significant Impact.** The Project would involve construction of new impervious surfaces. Impervious surfaces prevent the infiltration of groundwater into the subsurface. The groundwater level in the proposed area of the new stations is shallow so groundwater pumping and control during excavation and construction of cement pads may be required. However, given the pervious nature of areas surrounding the Project area, and the limited extent of new impervious surfaces proposed under the Project, implementation of the Project is not anticipated to noticeably reduce groundwater recharge. Therefore, groundwater levels would not be noticeably affected.

d, e) **Less than Significant.** The Project would result in the installation of new impervious surfaces on site. Impervious surfaces would be associated with the proposed cement pads, access areas, curb improvements, and a parking space for the Ferric Chloride Feed Station. Impervious surfaces prevent the infiltration of stormwater into the subsurface. As a result, during a storm event, impervious surfaces can result in a net increase in the volume of water discharged from a site, and can also result in an increase in the peak discharge rate of water from the site. However, as noted for checklist items a, c, and f, all stormwater drainage from the Project area would be routed into the Facility's existing headworks for treatment. Potential increases in stormwater volume due to Project implementation would be relatively limited due to the limited area new impervious surfaces that would be installed. Any anticipated increases in stormwater generated on the sites could be managed within the Facility's available capacity. Therefore, any increase in stormwater emanating from the Project area would be managed within the capacity of existing stormwater facilities, and additional mitigation would not be required.

g) **No Impact.** The Project would not involve the construction of any housing. Therefore, no impact would occur.

h) **Less than Significant Impact.** As shown on Figure 2.9-1, the Project would be located entirely within a FEMA-defined 100-year flood zone. Flooding would be associated with run-up from the south San Francisco Bay. The Project would result in the installation of new facilities, which could, on a very localized basis, alter flood flows during a major flood event. However, as shown on Figure 2.9-1, the 100-year floodplain is wide and expansive in the vicinity of the Project. Therefore, because the Project would have a limited extent (less than one acre) with only select facilities having potential to displace flood flows, displacement of flood waters would be negligible.

i) **Less than Significant Impact.** There are no dams or levees within the Project vicinity. The Project would involve installation of two new chemical feed stations and associated facilities within the Project area. The Project would not include any construction or other procedures on, adjacent to, or within a levee, dam, or other flood control feature, and therefore would not directly affect such facilities. Additionally, Project operations would involve periodic maintenance activities within the Project area. These activities would not interfere with levees or dams or cause potential failure of such facilities. Finally, the Project would temporarily require additional construction workers to be on site, in an area that is not protected from 100-year flooding. However, due to the nature of flooding in the area (associated with Bay run-up), sufficient notice prior to a potential flooding event would be available to permit evacuation. No mitigation is warranted.

j) **Less than Significant Impact.** The Project is not located immediately adjacent to an enclosed water body, such that it could be affected by seiche. Additionally, the Project is not located in an area that is considered susceptible to mudflows, such as downstream of high relief areas denuded of vegetation, or near potential volcanic activity. The Project is located in a lowlands area adjacent to south San Francisco Bay, and could theoretically be subject to

tsunami related hazards. Because the characteristic seiche periods of the Bay are significantly longer than surface wave periods for waves caused by earthquakes, earthquake-caused local tsunamis are not considered to pose a hazard to the Facility or the Project area.[35] When a suite of tsunami events, including local tsunamis and teletsunamis (tsunamis originating from distant points in the Pacific Ocean), were modeled in support of the Master Plan EIR,[36] the combined upper bound of tsunami inundation at mean high water was at the northeast corner of Pond A18, located north of the Project area along the margin of the south San Francisco Bay.[37] No inundation was shown within the Project area. This was due to dampening effects Bay geography as an incoming tsunami passed through the Golden Gate and dissipated across the central and south portions of the Bay. Therefore, tsunamis would not affect the Project sites.

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[35] Borrero, J.C., Dengler, L., Uslu, B., and Synolakis, C., *Numerical Modeling of Tsunami Effects at Marine Oil Terminals in San Francisco Bay*, Marine Facilities Division of The California State Lands Commission, 2006.

[36] City of San José. San José/Santa Clara Water Pollution Control Plant Master Plan Draft Environmental Impact Report. January, 2013.

[37] California Emergency Management Agency, California Geological Survey, and University of Southern California, 2009, Tsunami Inundation Map for Emergency Planning. Milpitas Quadrangle. July 31.

2.10 Land Use and Land Use Planning

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
10. LAND USE AND LAND USE PLANNING — Would the project:					
a) Physically divide an established community?	☐	☐	☐	☒	1, 2
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	1, 3
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	1, 4

2.10.1 Discussion

a) **No Impact.** The Project would include installation of additional industrial facilities within the Facility central and southern operational areas. The Project would not include any construction within or near an established community, and therefore would not physically divide or interfere with any established community. No impact would occur.

b) **No Impact.** The Project would be entirely located within the Facility central and southern operational areas. With respect to City zoning districts, the Project is zoned as heavy industrial. With respect to the City's General Plan designations, the Project is designated as Public/Quasi-Public, a category that is typically used to designate public land uses such as water treatment facilities and the bufferlands. The proposed Project, including all proposed facilities and operations, would therefore be consistent with existing zoning and land use designations applicable to the Project area. No impact would occur.

c) **No Impact.** As discussed under Biological Resources checklist item (f), the Project area is located within the SCVHP boundary area. The Project would result in a loss of land designated under the Habitat Plan as ranchlands or natural lands, could result in a loss of occupied burrowing owl breeding and foraging habitat, and potentially cause take of individual burrowing owls. However, the Project applicant would apply for permit coverage under the SCVHP, pay fees as warranted, implement avoidance measures as outlined in the Habitat Plan, and implement Mitigation Measure BIO-2, Burrowing Owl Protection Measures. Together, implementation of these measures would ensure that the Project would not conflict with the SCVHP. No other habitat conservation plans or natural community conservation plans are applicable to the Project area. Therefore, no impact would occur.

2.11 Mineral Resources

2.11.1 Setting

The Project area is not within an aggregate resource area, and are mapped by the California Division of Mines and Geology being within Mineral Resource Zone 1.[38] Mineral Resource Zone 1 identifies areas where adequate information exists to determine that no significant aggregate resources are present. Both published geologic maps and site-specific borings confirm that subsurface materials are generally too fine-grained to be suitable as aggregate. Additionally, according to the USGS Mineral Resources Data System, there are no known mineral occurrences, prospects, or past or present mineral producers within or immediately adjacent to the Project area.[39]

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
11. MINERAL RESOURCES — Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	1
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	1

2.11.2 Discussion

a) **No Impact.** As noted above, no known mineral resources of importance to the state or region are located on the sites. Additionally, no locally important mineral resource recovery sites are delineated for the Project area, including in a general plan or other land use plan. Therefore, the Project would result in the loss of availability of mineral resources, or otherwise interfere with the extraction of existing mineral resources. No impact would occur.

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[38] California Division of Mines and Geology. Update of Mineral Land Classification: Aggregate Materials in the South San Francisco Bay Production-Consumption Region. DMG Open File Report 96-03, 1996.

[39] U.S. Geologic Survey, *Mineral Resources Data System (MRDS), Mineral Resources On-Line Spatial Data*, available http://mrdata.usgs.gov/mineral-resources/mrds-us.html. Accessed February 25, 2015.

2.12 Noise

Noise Background. Noise may be defined as unwanted sound. The objectionable nature of a particular sound could be caused by its pitch or its loudness. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. Most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, DNL (day/night average sound level), was developed. The DNL divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level. The equivalent sound level (L_{eq}) represents an average of the sound energy occurring over a specified time period. In effect, the L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The maximum sound level (L_{max}) is the highest instantaneous sound level measured during a specified period.

2.12.1 Setting

There are no noise sensitive receptors (e.g., residences, schools) in the immediate vicinity of the Project area. The closest sensitive receptor is a church at the Jubilee Christian Center (including a church and a children's center/youth center) that is approximately 0.65 mile (approximately 3,100 feet) southwest of the Project area. The closest residences are located in the Alviso Village neighborhood, which is approximately 0.9 miles (4,800 feet) west or northwest of the Project area. There closest commercial facility is to the southwest, approximately 0.6 miles (3,000 feet) from the Project area. George Mayne Elementary School is located 0.95 mile southwest of the Project area.

Ambient noise levels were recently measured in the Alviso Village neighborhood during a long-term (72-hour) survey that was completed from May 15 through May 18, 2012 for the Master Plan (City of San José, 2013). The noise measurements conducted during the survey represent the ambient noise environments at the closest noise-sensitive uses to the Project area. **Table 2.12-1** presents a summary of the ambient average noise measurement results. As shown in the table, the daytime L_{eq} averaged 58 dB, the nighttime L_{eq} averaged 51 dB, and the DNL averaged 59 dB, during the 72-hour survey period.

Applicable Noise Standards and Policies

The City's General Plan includes policies applicable to all development projects in San José. The City's noise and land use compatibility guidelines are shown in **Table 2.12-2**, below. The land use compatibility guidelines state that the City's normally acceptable exterior noise level is 60 dBA DNL or less for residential and most institutional land uses (see Table 2.12-2). The acceptable interior noise level is 45 dBA DNL.

TABLE 2.12-1
SUMMARY OF AMBIENT NOISE LEVEL MEASUREMENT RESULTS

Description of Measurement Site	Average Noise Level (Range), dB		
	Daytime L_{eq} (7 a.m.-10 p.m.)	Nighttime L_{eq} (10 p.m.-7 a.m.)	DNL
Alviso Village Residential area at the intersection of Wabash Street & Spreckles Avenue	58 (50-66)	51 (43-60)	59 (57-61)

NOTE: The long-term measurement was collected May 15 through 18, 2012.
SOURCE: City of San José, 2013.

TABLE 2.12-2
PROPOSED GENERAL PLAN LAND USE COMPATIBILITY GUIDELINES (GP TABLE EC-1)

Land Use Category	Exterior DNL Value in Decibels					
	55	60	65	70	75	80
Residential, Hotels and Motels, Hospitals and Residential Care[1]						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Meeting Halls, and Churches						
Office Buildings, Business Commercial, and Professional Offices						
Sports Arena, Outdoor Spectator Sports						
Public and Quasi-Public Auditoriums, Concert Halls, and Amphitheaters						

[1] Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.

Normally Acceptable:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and noise mitigation features included in the design.

Unacceptable:
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies. Development will only be considered when technically feasible mitigation is identified that is also compatible with relevant design guidelines.

Significance Thresholds

The following General Plan policies establish the thresholds to be used in the determination of the significance of environmental impacts related to noise and vibration.

1. ***Policy EC-1.2:*** Minimize the noise impacts of new development on land uses sensitive to increased noise levels [Categories 1, 2, 3 and 6] by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:

a. Cause the DNL at noise sensitive receptors to increase by five dB DNL or more where the noise levels would remain "Normally Acceptable"; or

b. Cause the DNL at noise sensitive receptors to increase by three dB DNL or more where noise levels would equal or exceed the "Normally Acceptable" level.

2. ***Policy EC-1.3:*** Mitigate noise generation of new nonresidential land uses to 55 dB DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.

3. ***Policy EC-2.3:*** Require new development to minimize vibration impacts to adjacent uses during demolition and construction. A vibration limit of 0.20 in/sec peak particle velocity (PPV) will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.

In addition to the above General Plan policies, the Project would be subject to the following code and ordinance:

- ***San José Municipal Code §20.100.450*:** Limits construction hours within 500 feet of residences to 7 AM - 7 PM weekdays, with no construction on weekends or holidays; and
- ***City of San José Zoning Ordinance:*** The City Zoning Ordinance applies specific noise standards to Residential Zoning Districts, which limits the sound pressure levels generated by any use or combination of uses at any property line to a maximum noise level of 55 dB.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
12. NOISE — Would the project:					
a) Result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	1
b) Result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	1
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	1
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☒	☐	1
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	1

2.12.2 Discussion

a) **Less than Significant Impact.** Based on the following, construction and operation of the Project would not expose persons to noise levels in excess of regulatory standards, codes, or ordinances. Therefore, the associated impact would be less than significant.

Construction

Construction is a temporary source of noise that can impact residences and businesses located near construction sites. Construction noise can be considerable for short periods of time at any particular location and typically generates the highest noise levels during grading and excavation. However, there are no residential or commercial uses within 500 feet or 200 feet of the Project area, respectively. The closest existing residential and commercial uses are approximately 4,800 feet from the Project construction locations, respectively. Worst-case Project construction noise exposure at the closest existing residences and commercial uses would not be expected to exceed 43 dB L_{max} and 49 dB L_{max}, respectively, from noise sources in the vicinity of the Project construction sites. This is based on a conservative assumption that construction equipment would result in a noise production of up to 90 dB L_{max} at 50 feet (FTA, 2006) and assumes a noise level reduction of 7.5 dB for every doubling of distance due to attenuation associated with soft ground surfaces. Estimated short-term construction noise exposure associated with the Project would not be expected to exceed any of the City's significance thresholds. Therefore, the closest existing noise-sensitive uses to the Project area would not be significantly impacted by Project construction-related noise.

Operation

Routine operation of the Project would result in noise associated with periodic truck traffic for delivery of chemicals and the operation of the pumps. The truck traffic would be consistent would current operations at the Facility site and would not be expected to increase noise levels above current conditions. Operation of the pumps at the facilities would occur within the proposed canopy enclosure. The operation of the proposed pumps would not significantly increase average noise levels at the sites because the Facility has existing pumps already in operation within the vicinity of the proposed facilities. Therefore, operation of the Project would not exceed any of the City's significance thresholds, and the associated impact would be less than significant.

b) **Less than Significant Impact.** Vibration produced during demolition/construction of the Project could produce maximum vibration levels of 0.21 in/sec PPV at a distance of 25 feet (FTA, 2006). Since construction equipment would be well over 2,000 feet from acoustically sensitive uses, construction-related vibration levels at these uses would not be perceivable, and would well below the 0.20 in/sec PPV impact criterion. Therefore, this impact is considered less than significant.

c) **Less than Significant Impact.** As described under Checklist 12 Significance Criteria a above, Project-related normal operations would not result in a substantial permanent increase in

ambient noise levels in the Project vicinity above levels existing without the Project. The impact would be less than significant.

d) **Less-than-Significant Impact.** As described under 12a) above, Project-related construction activities would result in worst-case temporary noise levels at the closest existing residences and commercial uses that would not exceed 43 dB L_{max} and 49 dB L_{max}, respectively. Daytime L_{eq} noise levels in the Project area have been measured to be as low as 50 dB (see Table 2.12-1). Therefore, the Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. The impact would be less than significant.

e) **Less-than-Significant Impact.** The Project would not be significantly impacted by aircraft operations from nearby Norman Y. Mineta San José International Airport or Moffett Field. Norman Y. Mineta San José International Airport and Moffet Field are located approximately 4 miles south and 5 miles west of the Project area, respectively. Since the Project is more than 2 miles from a public use airport and proposes no uses that would be affected by local aircraft operations, the Project would not be significantly impacted by aircraft noise. The impact would be less than significant.

f) **No Impact.** There are no known private airstrips in the Project vicinity. Since the Project is not in the vicinity of a private airstrip and proposes no uses that would be substantially affected by local aircraft operations, the Project would not be affected by aircraft noise. There would be no impact.

2.13 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
13. POPULATION AND HOUSING — Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	1
b) Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	1

2.13.1 Discussion

a) **No Impact.** The Project would not involve or result in major new housing, business, or industrial developments that could drive population growth. The Project would involve installing two new chemical feed stations in order to support ongoing operation of the existing Facility. As noted in the Project Description, the Project would not support or contribute to expansion of the Facility, but would serve the sole purpose of supporting existing operations. Therefore, the Project would not lift an existing indirect impediment to growth, such as by increasing available capacity at a wastewater treatment plant. No impact would occur.

b) **No Impact.** The Project would involve construction and use of industrial facilities at an existing industrial site. It would not result in the demolition of existing housing, or otherwise cause a reduction in housing units on site or elsewhere. Therefore, no impact would occur.

c) **No Impact.** The Project would involve construction and use of industrial facilities at an existing industrial site. There is no existing housing located on site, and no persons would be displaced as a result of Project implementation. Therefore, no impact would occur.

2.14 Public Services

2.14.1 Setting

Fire protection services for the City are provided by the San José Fire Department (SJFD). The SJFD currently consists of 33 active stations serving an area of 206 square miles and over one million residents. The SJFD responds to all fires, hazardous materials spills, and medical emergencies (including injury accidents) in the City, including at the Facility site and the Project area. The closest fire station to the Facility is Station 25 located at 5125 Wilson Way in Alviso, approximately 1 mile west of the Facility. Police services for the City of San José are provided by the San José Police Department (SJPD).

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
14. PUBLIC SERVICES — Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					
i) Fire protection?	☐	☐	☒	☐	1,2
ii) Police protection?	☐	☐	☐	☒	1
iii) Schools?	☐	☐	☐	☒	1
iv) Parks?	☐	☐	☐	☒	1
v) Other public facilities?	☐	☐	☐	☒	1

2.14.2 Discussion

a.i) **Less than Significant Impact.** The Project would involve include construction and operation of two new chemical feed stations and an access road for the Ferric Chloride Station. In the event of a fire within the Project area, including a fuel fire, fire response would be provided by SJFD. SJFD maintains two hazardous incident teams, a rescue medic, and a foam unit, as well as other standard facilities and equipment. These existing resources are anticipated to be sufficient to manage potential fire incidents on site. Therefore, the Project would not deleteriously affect fire department response times, and would not require additional facilities or equipment.

a.ii-v) **No Impact.** The Project would involve construction and operation of components needed in support of the existing wastewater treatment operations at the Facility. These proposed facilities would not require additional police protection or response, need for schools, demand for parks, or need for other public facilities, such that new or physically altered

public facilities would be needed. Additionally, the Project would not create demand for police services such that response times would be altered.

2.15 Recreation

2.15.1 Setting

There are no existing recreational facilities in the immediate vicinity of the Project area. The closest park to the Facility site is Aviso Park, located approximately 1 mile to the west.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
15. RECREATION — Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☐	☒	1
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒	1

2.15.2 Discussion

a,b) **No Impact.** The Project would involve the construction and operation of a new Ferric Chloride Feed Station and Polymer Feed Station to support the existing Facility operations. Thus the Project would install new industrial facilities within an existing industrial area, in proximity to other similar facilities. The Project would not result in new housing development or other activities that would increase use, alter usage patterns, or increase demand for existing recreational facilities, thereby causing increased physical deterioration of recreation related facilities or demand for new facilities. Therefore, no impact would occur.

2.16 Transportation and Traffic

2.16.1 Setting

The Project area is generally bounded by the San Francisco Bay to the north, Interstate 880 (I-880) to the east, State Route 237 (SR-237) to the south and the community of Alviso to the west. The following roadways would provide access to the Project area, and would be used for site access during construction and operation.

- Zanker Road is a two-lane road that provides entry to the Facility site from the south, and turns into Los Esteros road near the northeastern corner of the Facility central operational area. SR-237 can be accessed from Zanker Rd by driving south to SR-237. Zanker Road would provide the primary access route to the Project area.

- Los Esteros Road is a two-lane road that enters the Facility site from the west, and runs along the southern flank of the Facility central operational area. SR-237 can be accessed from Los Esteros Road to the west via Disk Drive and North 1st Street. Los Esteros Road could also be used to access the Project area, but would not be the primary access route.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
16. TRANSPORTATION AND TRAFFIC — Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	1,2
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	1,2
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks?	☐	☐	☒	☐	1,2
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐	1,2
e) Result in inadequate emergency access?	☐	☐	☒	☐	1,2
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐	1,2

2.16.2 Discussion

a, b) **Less than Significant Impact.** Construction of the proposed Project would involve limited daily worker trips to and from the construction site. As noted in the Project Description, the Project would require a total of 200 truck trips for construction-related truck activity. Project construction would also generate approximately 450 trips for workers' commute vehicles. Both Project related truck trips and worker and construction vehicle trips would occur only during the construction period, and therefore would cause temporary increases in vehicle traffic. In order to provide a conservative overestimate of anticipated effects on traffic, this analysis assumes that all construction trips would occur during peak hours – that is, 7am to 9am, and 4pm to 6pm. Workers and construction vehicles would access the site from Los Esteros Road and Zanker Road. The Project would not require any road closures or lane closures, and would proceed during a 12-month construction schedule. Anticipated construction related trips would thus be dispersed in time across the construction period. Based on information provided within the Master Plan EIR, existing levels of service at the intersection of Zanker Road and SR-237 during weekday morning and afternoon peak hours are equivalent to level of service B or better. The addition of up to 650 construction trips over the construction period would result in minor to negligible changes to existing traffic patterns along Project area access roads. These additional trips are not anticipated to reduce level of service noticeably, and would not result in the lowering of existing levels of service below thresholds maintained in any plan or other standard relevant to the Project area.

Operation and maintenance of the Project would involve periodic (monthly) inspection and maintenance of the proposed facilities. It is anticipated that maintenance operations would be staffed from within the Facility central and southern operational areas, and therefore would not generate additional traffic on site access roads. The Project would also involve intermittent chemical deliveries to the Project area, although these would be on an intermittent as-needed basis. Additionally, the Project would not block, interfere with, or congest any existing pedestrian or bicycle paths, and similarly would not interfere with any mass transit systems. Therefore, the Project is not anticipated to conflict with any applicable plan, ordinance, policy, or congestion management program with respect to traffic or circulation, or non-motorized travel.

c) **Less than Significant Impact.** The proposed facilities would be limited in height to approximately 1 story, and are not located in close proximity to an existing airport. Additionally, the Project would not cause changes in demand for air transport, nor would it otherwise alter existing air traffic levels or routes.

d) **Less than Significant Impact.** The Project would not install any new public access roadways, nor would it alter any public access roadways. Additionally, the Project would not introduce an incompatible use (i.e., such as agricultural use) to area roadways. Therefore, potential hazards associated with such conditions would be avoided.

e) **Less than Significant Impact.** The Project would not block or interfere with, temporarily or permanently, any emergency access route. While the Project would result in additional

construction related trips, these would be limited in extent and would only occur during the construction period. Therefore, potential for interference with emergency access would be minimal.

f) **Less than Significant Impact.** The Project would not alter or interfere with existing public transit, bicycle, or pedestrian facilities. Project construction would be limited in extent to an area that is not generally accessed or utilized by the public, including pedestrians, bicyclists, or persons utilizing public transit. While construction related truck trips could cause a minor increase in use of access roads, these would not interfere with pedestrian, bicycle, or public transit.

2.17 Utilities and Service Systems

2.17.1 Setting

Environmental Setting

The City's sanitary sewer system includes approximately 2,200 miles of sewer pipelines ranging from six to 90 inches in diameter. Sewer systems route to the Facility, of which this Project is a component. The Facility provides primary, secondary, and tertiary treatment of wastewater and has the capacity to treat 167 mgd average dry weather influent flow.

Solid waste and recycling collection services for businesses are provided by various contracted and franchised waste and recycling haulers. Non-residential waste may be disposed at any of four privately owned landfills in San José (including Newby Island Sanitary Landfill, Zanker Road Landfill, Zanker Material Processing Facility, and Guadalupe Landfill) or at other landfills outside the county. According to Santa Clara County's 2007 five-year countywide integrated waste management plan review report (which is based on 2005 data), the county has adequate disposal capacity (i.e., greater than 15 years).[40]

Historically, electricity generated at an on site cogeneration facility provided most of the needed electricity supply for the Facility. However, the Facility currently receives electrical power from the grid via PG&E as the main source of power supply.

Regulatory Setting

Federal Safe Drinking Water Act

The U.S. Environmental Protection Agency (U.S. EPA) administers the Safe Drinking Water Act (SDWA), the primary federal law that regulates the quality of drinking water and establishes standards to protect public health and safety. The California Department of Health Services (DHS) implements the SDWA and oversees public water system quality statewide. California DHS establishes legal drinking water standards for contaminates that could threaten public health.

Zero Waste Resolution and Zero Waste Strategic Plan

In October 2007, the City Council adopted a Zero Waste Resolution (No. 74077), which set a goal of 75 percent waste diversion by 2013 and a goal of zero waste by 2022 for the City. To support this resolution and several Green Vision Goals, the City of San José Environmental Services Department prepared the Integrated Waste Management Zero Waste Strategic Plan in November 2008. The primary focus of this plan is to identify the path to achieve zero waste through various goals which include enhancing residential recycling, enhancing construction and demolition debris recycling,

[40] Santa Clara County, Five-Year CIWMP/RAIWMP Review Report, August 22, 2007. http://www.sccgov.org/SCC/docs%2FIntegrated%20Waste%20Management%20(DIV)%2FSCC%202nd%205yr%20rpt%202006%20rev4.pdf. Accessed February 26, 2015.

evaluating anaerobic digestion of food scraps at the Facility, and promoting the future development of energy conversion technologies for converting residual wastes into energy.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
17. UTILITIES AND SERVICE SYSTEMS — Would the project:					
a) Conflict with wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	1, 2
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1, 2
c) Require or result in the construction of new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	1, 2
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐	1, 2
e) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒	1, 2
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	1,2,5
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐	1,2

2.17.2 Discussion

a) **No Impact.** The Project would not generate any wastewater during construction or operation, and therefore would not interfere with or conflict with any applicable Regional Water Quality Control Board requirements for wastewater treatment. For a discussion of stormwater and stormwater quality associated with Project construction and operation, please refer to Section 2.1.9 of this document. No impact would occur.

b) **Less than Significant Impact.** The Project would involve the construction and operation of facilities designed to provide support to existing wastewater treatment facilities located at the existing Facility site. The Project would not require or result in the construction of new water or wastewater treatment facilities, because the Project would not require additional water supplies, would not generate wastewater, and would not result in the construction of a major housing development or other action that could drive increases in demand for water or wastewater treatment facilities. Therefore, this impact is considered less than significant.

c) **Less than Significant Impact.** The Project would involve the installation of new impervious surfaces including cement pads, access areas, curb improvements, a parking space for the Ferric Chloride Feed Station, and other appurtenances as discussed in the Project Description. Under existing conditions, drainage from the Project area is collected within the Facility central and southern operational area and directed into the Facility headworks for treatment. Under the Project, stormwater would continue to be managed in this manner. Drainage on site would be managed using proposed infrastructure, and would be conveyed to the Facility headworks and treated using existing facilities. These existing facilities would be sufficiently sized so as to enable stormwater management from the Project area without further modification. Therefore, this impact is considered less than significant.

d) **Less than Significant Impact.** The Project would require limited water during construction in support of dust suppression and on site earth moving activities. During operations, negligible water would be required. Therefore, exiting water supplies at the Facility site would be sufficient to enable construction and operation of the proposed Project without requiring any new or expanded entitlements, or other new sources of water supply. This impact is considered less than significant.

e) **No Impact.** The Project would not generate wastewater. Therefore, the Project would in no way require additional wastewater treatment capacity in order to serve the Project. No impact would occur.

f) **Less than Significant Impact.** During construction, the Project would generate various construction-related waste and debris. This could include rubble from the removal of existing facilities on site, as well as solid wastes generated during the construction process. Rubble from the removal of existing facilities could include broken concrete, asphalt, metals, piping, and other materials consistent with existing uses. During the construction process, solid wastes would include construction related wastes such as wood wastes, metals, concrete, plastics, and various other components. Operation would generate limited solid wastes associated with maintenance of the proposed facilities.

To the extent feasible, demolition/decommissioning rubble would be recycled, including concrete, asphalt, metals, and metal piping. Similarly, recyclable construction materials would also be recycled. Non-recyclable materials would be landfilled or otherwise disposed of in accordance with applicable regulatory requirements. As noted above, the Project would utilize one or more of the four landfills identified above to dispose of demolition and construction related solid wastes from the Project area, while recycling would rely on a local franchised recycler. Given that the county has at least 15 years of available landfill capacity, and that the Project would generate a relatively limited volume of solid waste due to its limited extent, and because operation period waste generation would be extremely limited, available landfill capacity would not be noticeably affected by the Project. This impact is considered less than significant.

g) **Less than Significant Impact.** Project construction and operation would comply with all applicable regulatory requirements related to solid waste. Specifications for Project construction would contain requirements for the handling, storage, cleanup, and disposal of hazardous materials including cement or other construction pollutants. For additional discussion of hazardous materials and potential hazardous materials handling and impacts, please refer to Section 2.1.8 of this document.

Operation of the Project would also comply with all applicable regulatory requirements related to the handling, management, and disposal of solid waste. For additional information regarding the management of hazardous materials on site, please refer to Section 2.1.8 of this document. No mitigation is warranted and this impact is considered less than significant.

2.18 Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*	*Checklist Source(s)*
18. MANDATORY FINDINGS OF SIGNIFICANCE — Would the project:					
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	1, 2, 8
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐	1, 2
c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	1, 2

2.18.1 Discussion

a) **Less than Significant with Mitigation.** As discussed for potential impacts to biological resources, the Project could result in potential impacts to nesting or breeding birds, including special-status bird species, and also including burrowing owls and their habitat. However, these potential impacts would be mitigated to less than significant levels via applicable mitigation, including Mitigation Measures BIO-1 through BIO-3. No other biological resources would be substantially affected. Similarly, potential impacts to potentially jurisdictional waters would be avoided via adherence to Mitigation Measure BIO-4 and implementation of a SWPPP. For additional discussion, please refer to Section 2.4, Biological Resources. No further mitigation would be required.

b) **Less than Significant with Mitigation.** Cumulative environmental effects are multiple individual effects that, when considered together are considerable or compound or increase other environmental impacts. The individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time. Cumulative projects identified that are ongoing at present or anticipated in the reasonably foreseeable future that would be relevant to the proposed Project include the proposed projects associated with implementation of the Plant Master Plan, as well as other anticipated facility upgrades at the Facility site including near term installation of a proposed cogeneration facility and upgrades to the existing digesters. The text below characterizes the project's potential to contribute to significant cumulative impacts.

Air quality, Greenhouse Gas Emissions. The Project's air quality impacts would largely be limited to the construction period. Temporary construction related air quality and GHG emissions would be minimized through the adherence to BAAQMD standards and requirements, the City's GHG Strategy, and BAAQMD basic construction mitigation measures. Operation period emissions would occur as a result of intermittent scheduled maintenance, which would be limited in duration. In the event of a power failure, use of the generators would conform to EPA interim Tier IV or better emissions standards. The methodology for assessing cumulative air quality impacts is based on BAAQMD guidance, as noted above. As described for Checklist Item 3c of Section 2.3.2., Air Quality, the Project would not result in a cumulatively considerable net increase in criteria air pollutants. The analysis of greenhouse gas emissions is inherently a cumulative analysis (with the geographic scope of the impact being the global climate). As described in Section 2.7, the Project would not result in significant impacts related to greenhouse gas emissions.

Biological Resources. Potential cumulative impacts to Burrowing Owl would be minimized via adherence to the measures and requirements of the SCVHP. Cumulative scenario projects identified within the Master Plan Draft EIR could also result in potential impacts to burrowing owls, but potential impacts would be reduced to less than significant levels via adherence to applied mitigation measures. Mitigation measures identified in the Master Plan Draft EIR would include reserving approximately 180 acres of burrowing owl nesting and foraging habitat, which according to the Master Plan Draft EIR would be sufficient to offset impacts incurred by Master Plan implementation. Therefore, a cumulatively considerable impact to burrowing owls would not occur. The Project would have no direct impacts on riparian habitat or other sensitive natural communities, migration of species, or applicable biological resources protection ordinances. The Project would avoid impacts to federally protected wetlands via implementation of avoidance measures, as discussed in Section 2.4. Therefore, the Project would not contribute to any cumulative impact for these resources.

Traffic. As noted in Section 2.1.3 and the Project Description, construction traffic generation and on site activity would be limited. However, construction of the proposed Project could overlap with construction of other projects at the Facility. Based on schedules currently available for projects at the Facility, the following could overlap with Project construction:

TABLE 2.18-1
MASTER PLAN PROJECTS WITH CONSTRUCTION SCHEDULES OVERLAPPING WITH THE PROJECT

Process Area	Project Title	Project Summary	Estimated Construction Schedule
Headworks	Headworks Enhancements Phases 1 and 2, EBOS Improvements, and Lamplighter Connection	Phase 1: add sluice gate, pipeline, rerouting recycle flows and filter backwash overflow, rerouting Power & Energy cooling water. Phase 2: Emergency Basin Overflow Structure improvements (installation of a baffle wall, sluice gate), connection of Lamplighter force main to Santa Clara No. 2 structure.	Phase 1: 2013-2016 Phase 2: To be determined
	Expand and Line Raw Emergency Basin to 10 MG	Involves expanding basin to 10 million gallons by either raising elevation of an existing overflow weir or increasing depth of basin; and constructing concrete liner and installing spraydown systems to facilitate cleaning.	2015-2017
Primary	East Primaries Steel Conversion, Coating Rehabilitation, Concrete Repair, and seismic upgrades	Includes replacement of controls equipment, concrete refurbishment, coating, structural modifications. To be conducted in four phases.	Beginning in 2015
Secondary	Rehab of remaining secondary clarifiers (BNR2)	Modifications to improve performance following modeling and piloting of remaining secondary clarifiers, including mechanical and structural rehabilitation, access bridges, and other equipment.	2015-2024
	Foam and Scum Control/Nocardia Control	Entails installation of spray system to control Nocardia foam and construction of overflow weirs in existing facilities.	2014-2017
Filtration and Disinfection	Miscellaneous Filtration Repairs	Entails the reparations required through transition to a new filter complex, and include valve replacement, electrical control replacement, and concrete repair.	2015-2017
Biosolids	DAFT Final Upgrades (6 DAFTs)	Upgrade of six of the existing (Dissolved Air Flotation Thickener) DAFT units (new pumps, retrofits of tank systems, new polymer system, saturation system upgrades, and piping modifications). Odor containment modifications include covers, air ducting, and fans and addition of biofilter.	2013-2016
	Digester Gas Manifold and Tunnel Improvements	Includes new above-ground gas manifold to connect all digester gas laterals and related piping and valving, removal of hazardous piping form tunnels, sealing tunnels from other classified areas, and relocating ventilation intakes.	2013-2016
	Digester Cover and Mixing Upgrades: 3 phases	Includes installation of new covers and mixers and related equipment at digesters in 3 phases.	2013-2016; 2017-2018; unknown
	Digester Heating Upgrades	Entails piping, equipment, and control modifications to the individual digester heat supply systems.	2013-2016
Site Facility Improvements	Tunnel Rehabilitation	Entails rehabilitation of BNR1 and BNR2 tunnel complexes; includes structural concrete repair and coatings and removal of abandoned pipelines.	2015-2018
Site Facility Improvements	3W Pump Station Improvements	Entails modeling and modifications or replacement of the 3W pumps.	2015-2018

SOURCE: San Jose/Santa Clara Water Pollution Control Plant Master Plan Environmental Impact Report.

Other projects that would be implemented separate from the Master Plan include upgrades to the existing cogeneration facility, installation of a series of emergency generators, and upgrades to existing Facility digesters.

Because the extent of construction of potentially overlapping projects is not fully known at this time, it is possible that service levels along affected roadways could be temporarily degraded. Therefore, implementation of the following mitigation measures is recommended to reduce the project's contribution to any potential traffic impacts to the surrounding network:

Mitigation Measure C-TR: Implement Coordinated Transportation Management Plan.

Prior to construction, the City's contractor(s) shall develop a Coordinated Transportation Management Plan and work with other projects' contractors and appropriate City departments (e.g., Emergency Services, Fire, Police, Transportation) to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Project as well as planned Facility improvements and land uses, and to address the transportation impact of the overlapping construction projects within the vicinity of the Project in the region. The transportation management plan shall include, but not be limited to, the following requirements:

- Coordination of individual traffic control plans for the Project with nearby projects.
- Coordination between the Project contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address:
  - Full and partial roadways closures
  - Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices
  - Bicycle/Pedestrian detour plans, where applicable
  - Parking along public roadways
  - Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites
- Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.

Implementation of this measure would ensure that the project's contribution to the impact was less-than-cumulatively considerable.

d) **Less than Significant Impact.** All potential environmental impacts identified in support of the Project would be minimal/less than significant without mitigation, or would be minimized via implementation of applicable mitigation measures. All potential hazards and hazardous materials impacts would be minimized. No potentially significant impacts, which could cause substantial adverse direct or indirect effects on human beings were identified.

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CHAPTER 3
Checklist Sources

1. CEQA Guidelines and professional expertise of consultant
2. Project plan/description and site review
3. Envision San José 2040 (San José General Plan)
4. Santa Clara Valley Habitat Plan
5. Santa Clara County's Five-Year CIWMP/RAIWMP Review Report (August, 2007)
6. California Geological Survey Alquist-Priolo maps
7. California Department of Transportation Officially Designated State Scenic Highways and Historic Parkways (http://www.dot.ca.gov/hq/LandArch/scenic_highways/)
8. Satellite imagery from 2007, 2012, and 2014, available via Google Earth
9. Santa Clara Valley Habitat Plan
10. Bay Area Air Quality Management District CEQA Guidelines
11. FEMA 100-year floodplain delineations

APPENDIX A
Air Quality Study

San Jose WWTP - Iron Salts Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	36.63	1000sqft	0.84	36,625.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2018
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 -

Land Use - Project area (not including staging areas)

Construction Phase - Construction schedule estimated based on total construction time of the chemical stations

Off-road Equipment - Estimated equipment list per activity based on total provided

Off-road Equipment - Estimated equipment list per activity based on total provided

Off-road Equipment - Estimated equipment list per activity based on total provided

Off-road Equipment - Estimated equipment list per activity based on total provided

Grading - Based on input from applicant/engineer

Architectural Coating -

Vehicle Trips - Construction only

Consumer Products - Construction only

Area Coating - Construction only

Landscape Equipment - Construction only

Energy Use - Construction only

Water And Wastewater - Construction only

Solid Waste - Construction only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	18313	0
tblAreaCoating	Area_Nonresidential_Interior	54938	0
tblConstructionPhase	NumDays	5.00	12.00
tblConstructionPhase	NumDays	100.00	210.00
tblConstructionPhase	NumDays	2.00	60.00
tblConstructionPhase	NumDays	5.00	13.00
tblConstructionPhase	PhaseEndDate	1/13/2017	1/15/2017
tblConstructionPhase	PhaseEndDate	3/25/2016	3/26/2016
tblConstructionPhase	PhaseStartDate	1/16/2017	1/15/2017
tblEnergyUse	LightingElect	3.52	0.00

tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	T24E	1.81	0.00
tblEnergyUse	T24NG	20.74	0.00
tblGrading	AcresOfGrading	30.00	0.75
tblGrading	MaterialExported	0.00	2,190.00
tblGrading	MaterialImported	0.00	1,318.00
tblLandUse	LandUseSquareFeet	36,630.00	36,625.00
tblOffRoadEquipment	HorsePower	255.00	140.00
tblOffRoadEquipment	HorsePower	255.00	300.00
tblOffRoadEquipment	HorsePower	8.00	125.00
tblOffRoadEquipment	LoadFactor	0.43	0.42
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00

tblProjectCharacteristics	OperationalYear	2014	2018
tblSolidWaste	SolidWasteGenerationRate	45.42	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	8,470,687.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3528	2.9913	2.1245	3.1000e-003	0.0479	0.1845	0.2324	0.0192	0.1732	0.1924	0.0000	276.8370	276.8370	0.0621	0.0000	278.1400
2017	0.2079	0.1358	0.1075	1.6000e-004	1.5100e-003	9.2600e-003	0.0108	4.1000e-004	8.7200e-003	9.1300e-003	0.0000	14.2374	14.2374	3.1500e-003	0.0000	14.3036
Total	**0.5607**	**3.1271**	**2.2319**	**3.2600e-003**	**0.0495**	**0.1937**	**0.2432**	**0.0196**	**0.1819**	**0.2015**	**0.0000**	**291.0744**	**291.0744**	**0.0652**	**0.0000**	**292.4436**

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					
2016	0.3528	2.9913	2.1245	3.1000e-003	0.0479	0.1845	0.2324	0.0192	0.1732	0.1924	0.0000	276.8367	276.8367	0.0621	0.0000	278.1397
2017	0.2079	0.1358	0.1075	1.6000e-004	1.5100e-003	9.2600e-003	0.0108	4.1000e-004	8.7200e-003	9.1300e-003	0.0000	14.2374	14.2374	3.1500e-003	0.0000	14.3036
Total	**0.5607**	**3.1271**	**2.2319**	**3.2600e-003**	**0.0495**	**0.1937**	**0.2432**	**0.0196**	**0.1819**	**0.2015**	**0.0000**	**291.0741**	**291.0741**	**0.0652**	**0.0000**	**292.4433**

	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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.2 Overall Operational

Mitigated Operational

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/4/2016	3/26/2016	5	60	
2	Building Construction	Building Construction	3/27/2016	1/15/2017	5	210	
3	Paving	Paving	1/15/2017	2/1/2017	5	13	
4	Architectural Coating	Architectural Coating	2/2/2017	2/17/2017	5	12	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 54,938; Non-Residential Outdoor: 18,313 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	3	4.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	4.00	140	0.40
Grading	Rubber Tired Dozers	1	4.00	300	0.40
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Plate Compactors	2	4.00	8	0.43
Building Construction	Pumps	1	4.00	84	0.74
Building Construction	Rollers	2	4.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Plate Compactors	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Grading	7	18.00	0.00	274.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	15.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2016

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					0.0232	0.0000	0.0232	0.0125	0.0000	0.0125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1036	1.0402	0.6633	8.4000e-004		0.0575	0.0575		0.0537	0.0537	0.0000	77.8610	77.8610	0.0202	0.0000	78.2848
Total	**0.1036**	**1.0402**	**0.6633**	**8.4000e-004**	**0.0232**	**0.0575**	**0.0807**	**0.0125**	**0.0537**	**0.0662**	**0.0000**	**77.8610**	**77.8610**	**0.0202**	**0.0000**	**78.2848**

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	2.9900e-003	0.0409	0.0321	1.0000e-004	2.3100e-003	5.3000e-004	2.8500e-003	6.4000e-004	4.9000e-004	1.1300e-003	0.0000	9.3877	9.3877	7.0000e-005	0.0000	9.3892
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	2.0100e-003	2.8300e-003	0.0275	6.0000e-005	4.9200e-003	4.0000e-005	4.9600e-003	1.3100e-003	4.0000e-005	1.3400e-003	0.0000	4.3321	4.3321	2.3000e-004	0.0000	4.3369
Total	**5.0000e-003**	**0.0437**	**0.0595**	**1.6000e-004**	**7.2300e-003**	**5.7000e-004**	**7.8100e-003**	**1.9500e-003**	**5.3000e-004**	**2.4700e-003**	**0.0000**	**13.7198**	**13.7198**	**3.0000e-004**	**0.0000**	**13.7261**

3.2 Grading - 2016

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					0.0232	0.0000	0.0232	0.0125	0.0000	0.0125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1036	1.0402	0.6633	8.4000e-004		0.0575	0.0575		0.0537	0.0537	0.0000	77.8609	77.8609	0.0202	0.0000	78.2847
Total	**0.1036**	**1.0402**	**0.6633**	**8.4000e-004**	**0.0232**	**0.0575**	**0.0807**	**0.0125**	**0.0537**	**0.0662**	**0.0000**	**77.8609**	**77.8609**	**0.0202**	**0.0000**	**78.2847**

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	2.9900e-003	0.0409	0.0321	1.0000e-004	2.3100e-003	5.3000e-004	2.8500e-003	6.4000e-004	4.9000e-004	1.1300e-003	0.0000	9.3877	9.3877	7.0000e-005	0.0000	9.3892
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	2.0100e-003	2.8300e-003	0.0275	6.0000e-005	4.9200e-003	4.0000e-005	4.9600e-003	1.3100e-003	4.0000e-005	1.3400e-003	0.0000	4.3321	4.3321	2.3000e-004	0.0000	4.3369
Total	**5.0000e-003**	**0.0437**	**0.0595**	**1.6000e-004**	**7.2300e-003**	**5.7000e-004**	**7.8100e-003**	**1.9500e-003**	**5.3000e-004**	**2.4700e-003**	**0.0000**	**13.7198**	**13.7198**	**3.0000e-004**	**0.0000**	**13.7261**

3.3 Building Construction - 2016

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	0.2315	1.8397	1.2442	1.8000e-003		0.1254	0.1254		0.1180	0.1180	0.0000	160.2473	160.2473	0.0408	0.0000	161.1046
Total	**0.2315**	**1.8397**	**1.2442**	**1.8000e-003**		**0.1254**	**0.1254**		**0.1180**	**0.1180**	**0.0000**	**160.2473**	**160.2473**	**0.0408**	**0.0000**	**161.1046**

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	7.1200e-003	0.0599	0.0811	1.4000e-004	3.8800e-003	9.0000e-004	4.7700e-003	1.1100e-003	8.3000e-004	1.9400e-003	0.0000	12.9753	12.9753	1.0000e-004	0.0000	12.9775
Worker	5.5800e-003	7.8500e-003	0.0763	1.6000e-004	0.0137	1.1000e-004	0.0138	3.6300e-003	1.0000e-004	3.7300e-003	0.0000	12.0335	12.0335	6.4000e-004	0.0000	12.0470
Total	**0.0127**	**0.0678**	**0.1574**	**3.0000e-004**	**0.0175**	**1.0100e-003**	**0.0185**	**4.7400e-003**	**9.3000e-004**	**5.6700e-003**	**0.0000**	**25.0089**	**25.0089**	**7.4000e-004**	**0.0000**	**25.0246**

3.3 Building Construction - 2016

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	0.2315	1.8397	1.2442	1.8000e-003		0.1254	0.1254		0.1180	0.1180	0.0000	160.2471	160.2471	0.0408	0.0000	161.1044
Total	**0.2315**	**1.8397**	**1.2442**	**1.8000e-003**		**0.1254**	**0.1254**		**0.1180**	**0.1180**	**0.0000**	**160.2471**	**160.2471**	**0.0408**	**0.0000**	**161.1044**

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	7.1200e-003	0.0599	0.0811	1.4000e-004	3.8800e-003	9.0000e-004	4.7700e-003	1.1100e-003	8.3000e-004	1.9400e-003	0.0000	12.9753	12.9753	1.0000e-004	0.0000	12.9775
Worker	5.5800e-003	7.8500e-003	0.0763	1.6000e-004	0.0137	1.1000e-004	0.0138	3.6300e-003	1.0000e-004	3.7300e-003	0.0000	12.0335	12.0335	6.4000e-004	0.0000	12.0470
Total	**0.0127**	**0.0678**	**0.1574**	**3.0000e-004**	**0.0175**	**1.0100e-003**	**0.0185**	**4.7400e-003**	**9.3000e-004**	**5.6700e-003**	**0.0000**	**25.0089**	**25.0089**	**7.4000e-004**	**0.0000**	**25.0246**

3.3 Building Construction - 2017

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	0.0105	0.0855	0.0610	9.0000e-005		5.6700e-003	5.6700e-003		5.3400e-003	5.3400e-003	0.0000	7.9233	7.9233	2.0000e-003	0.0000	7.9653
Total	**0.0105**	**0.0855**	**0.0610**	**9.0000e-005**		**5.6700e-003**	**5.6700e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**7.9233**	**7.9233**	**2.0000e-003**	**0.0000**	**7.9653**

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	3.1000e-004	2.6800e-003	3.7400e-003	1.0000e-005	1.9000e-004	4.0000e-005	2.3000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.6376	0.6376	0.0000	0.0000	0.6377
Worker	2.5000e-004	3.5000e-004	3.4100e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5787	0.5787	3.0000e-005	0.0000	0.5793
Total	**5.6000e-004**	**3.0300e-003**	**7.1500e-003**	**2.0000e-005**	**8.7000e-004**	**5.0000e-005**	**9.2000e-004**	**2.4000e-004**	**4.0000e-005**	**2.8000e-004**	**0.0000**	**1.2163**	**1.2163**	**3.0000e-005**	**0.0000**	**1.2170**

3.3 Building Construction - 2017

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	0.0105	0.0855	0.0610	9.0000e-005		5.6700e-003	5.6700e-003		5.3400e-003	5.3400e-003	0.0000	7.9233	7.9233	2.0000e-003	0.0000	7.9653
Total	**0.0105**	**0.0855**	**0.0610**	**9.0000e-005**		**5.6700e-003**	**5.6700e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**7.9233**	**7.9233**	**2.0000e-003**	**0.0000**	**7.9653**

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	3.1000e-004	2.6800e-003	3.7400e-003	1.0000e-005	1.9000e-004	4.0000e-005	2.3000e-004	6.0000e-005	4.0000e-005	9.0000e-005	0.0000	0.6376	0.6376	0.0000	0.0000	0.6377
Worker	2.5000e-004	3.5000e-004	3.4100e-003	1.0000e-005	6.8000e-004	1.0000e-005	6.9000e-004	1.8000e-004	0.0000	1.9000e-004	0.0000	0.5787	0.5787	3.0000e-005	0.0000	0.5793
Total	**5.6000e-004**	**3.0300e-003**	**7.1500e-003**	**2.0000e-005**	**8.7000e-004**	**5.0000e-005**	**9.2000e-004**	**2.4000e-004**	**4.0000e-005**	**2.8000e-004**	**0.0000**	**1.2163**	**1.2163**	**3.0000e-005**	**0.0000**	**1.2170**

3.4 Paving - 2017

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	3.5700e-003	0.0338	0.0249	3.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	3.0258	3.0258	9.3000e-004	0.0000	3.0452
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.5700e-003**	**0.0338**	**0.0249**	**3.0000e-005**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**3.0258**	**3.0258**	**9.3000e-004**	**0.0000**	**3.0452**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.4000e-004	2.3600e-003	1.0000e-005	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4012	0.4012	2.0000e-005	0.0000	0.4016
Total	**1.7000e-004**	**2.4000e-004**	**2.3600e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4012**	**0.4012**	**2.0000e-005**	**0.0000**	**0.4016**

3.4 Paving - 2017

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	3.5700e-003	0.0338	0.0249	3.0000e-005		2.5000e-003	2.5000e-003		2.3000e-003	2.3000e-003	0.0000	3.0257	3.0257	9.3000e-004	0.0000	3.0452
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.5700e-003**	**0.0338**	**0.0249**	**3.0000e-005**		**2.5000e-003**	**2.5000e-003**		**2.3000e-003**	**2.3000e-003**	**0.0000**	**3.0257**	**3.0257**	**9.3000e-004**	**0.0000**	**3.0452**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.4000e-004	2.3600e-003	1.0000e-005	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4012	0.4012	2.0000e-005	0.0000	0.4016
Total	**1.7000e-004**	**2.4000e-004**	**2.3600e-003**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4012**	**0.4012**	**2.0000e-005**	**0.0000**	**0.4016**

3.5 Architectural Coating - 2017

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					
Archit. Coating	0.1910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	0.0131	0.0112	2.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	1.5320	1.5320	1.6000e-004	0.0000	1.5354
Total	**0.1930**	**0.0131**	**0.0112**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**1.0400e-003**	**1.0400e-003**	**0.0000**	**1.5320**	**1.5320**	**1.6000e-004**	**0.0000**	**1.5354**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1389	0.1389	1.0000e-005	0.0000	0.1390
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1389**	**0.1389**	**1.0000e-005**	**0.0000**	**0.1390**

3.5 Architectural Coating - 2017

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					
Archit. Coating	0.1910					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9900e-003	0.0131	0.0112	2.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	1.5320	1.5320	1.6000e-004	0.0000	1.5354
Total	**0.1930**	**0.0131**	**0.0112**	**2.0000e-005**		**1.0400e-003**	**1.0400e-003**		**1.0400e-003**	**1.0400e-003**	**0.0000**	**1.5320**	**1.5320**	**1.6000e-004**	**0.0000**	**1.5354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.6000e-004	0.0000	1.7000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1389	0.1389	1.0000e-005	0.0000	0.1390
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1389**	**0.1389**	**1.0000e-005**	**0.0000**	**0.1390**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.551461	0.058468	0.185554	0.123211	0.029507	0.004440	0.012712	0.023230	0.001775	0.001270	0.006089	0.000516	0.001766

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

5.2 Energy by Land Use - NaturalGas

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Vegetation

Average Annual Daily Criteria Pollutant Emissions San Jose Iron Salts Construction

Unmitigated Construction			tpy		Unmitigated Construction			average lbs/day	
Year	ROG	Nox	PM10 exh	PM2.5 exh	Year	ROG	Nox	PM10 exh	PM2.5 exh
2016-2017	0.5607	3.1271	0.1937	0.1819	2016	3.8	21.2	1.3	1.2

Construction Duration: 295 days 2016-2017

APPENDIX B

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

Santa José/Santa Clara Regional Wastewater Iron Salt Feed Station

May 2015

Planning File No. PP14-098

P R E F A C E

Section 21081 of the California Environmental Quality Act (CEQA) requires a Lead Agency to adopt a Mitigation Monitoring and Reporting Program whenever it approves a project for which measures have been required to mitigate or avoid significant effects on the environment. The purpose of the monitoring or reporting program is to ensure compliance with the mitigation measures during project implementation.

The Initial Study concluded that the implementation of the project could result in a significant effect on the environment and a mitigation measure is required as a condition of project approval. This Mitigation Monitoring and Reporting Program addresses that measure in terms of how and when it will be implemented.

This document does *not* discuss those subjects for which the Initial Study concluded that the impacts from implementation of the project would be less than significant.

I, , the applicant, on the behalf of , hereby agree to fully implement the Mitigation Measure described below which has been developed in conjunction with the preparation of an Initial Study/Mitigated Negative Declaration for my proposed Project. I understand that the Mitigation Measure or a substantially similar measure will be adopted as a condition of approval with my Conditional Use Permit request to avoid or significantly reduce potential environmental impacts to a less than significant level, where feasible.

Applicant's Signature _____

Date_____

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
BIOLOGICAL RESOURCES				
Impact BIO-1: Construction activities, especially those that involve ground disturbance and the use of heavy machinery, may affect nesting birds including special-status birds which may occur in the Project area. The addition of lighting associated with the construction and operation of new facilities may also result in adverse effects on breeding birds. Project implementation, particularly construction activities associated with the Ferric Chloride Feed Station, may result in adverse effects on foraging or breeding burrowing owls in	**MM BIO-1: Preconstruction Surveys for Nesting Birds** If Project construction is scheduled during breeding bird season (February 1–August 31), a qualified wildlife biologist the City shall retain a qualified biologist to conduct a survey for nesting raptors and migratory bird nests within 7 days of the start of construction or after any construction breaks of 14 days or more. Surveys shall be performed for the Project area and for suitable habitat within 300 feet. If an active nest is identified, a no-disturbance buffer zone around the nest tree (or, for ground-nesting species, or nests identified on Facility buildings, the nest itself) shall be established. The no-disturbance zone shall be marked with flagging or fencing that is easily identified and avoided by the construction crew. In general, the minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, they may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer widths may be modified based on discussion with CDFW. Buffers shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest. Construction activities that are scheduled to begin before the breeding season (i.e., begin between September 1 and January 31) can proceed without surveys. Optimally, all necessary tree and vegetation removal should be conducted before the start of breeding bird season (generally between February 1 and	Prior to, during, and after ground disturbing activities	Director of Planning, Building & Code Enforcement	CDFW, USFWS

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
occupied adjacent areas.	August 31) to minimize the opportunity for birds to nest in the Project area and conflict with Project constriction activities.			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	MM BIO-2: Minimize Light Pollution Lights at each development site (during construction and operation) will be directed downward and shielded where necessary to ensure that no fugitive light spills out into natural lands and interferes with typical avian behavior.	During construction and operation	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	MM BIO-3: Burrowing Owl Protection Measures To avoid or minimize direct impacts of Project activities on western burrowing owls, the City shall ensure the following procedures are implemented consistent with the SCVHP. This survey methodology is consistent with accepted survey protocols for this species1. 1. Habitat Survey a) Western burrowing owl habitat surveys will be required in the Project area in all SCVHP modeled occupied habitat. Surveys are not required in sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Modeled habitat types may change throughout the permit term based on the best available scientific data. Habitat surveys are required in both breeding and non-breeding seasons. b) Qualified biologist(s) shall conduct a pedestrian survey of the Project area and accessible areas within 250-feet of the Project area. Pedestrian survey transects shall be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines shall be no more than 50 feet and can be reduced to account for differences in terrain, vegetation density, and ground surface visibility. The biologist shall map areas with burrows or burrow complexes that could support burrowing owls and all burrows that may be occupied (as indicated by tracks, feathers, egg shell fragments, pellets, prey remains, or excrement).	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	CDFW, USFWS

[1] The California Burrowing Owl Consortium, 1993. Burrowing Owl Survey Protocol and Mitigation Guidelines. April.

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	c) Poor weather may affect the surveyor's ability to detect burrowing owls thus, avoid conducting surveys when wind speed is greater than 20 kilometers per hour and there is precipitation or dense fog. To avoid impacts to owls from surveyors, owls and/or occupied burrows shall be avoided by a minimum of 150 feet wherever practical to avoid flushing occupied burrows. Disturbance to occupied burrows shall be avoided during all seasons. d) If suitable habitat is identified during the habitat survey, and if the Project does not fully avoid impacts to the suitable habitat, preconstruction surveys will be required. Suitable habitat is fully avoided if the project footprint does not impinge on a 250-foot buffer around the suitable burrow. 2. <u>Preconstruction Surveys</u> a) A qualified biologist shall conduct preconstruction surveys in all suitable habitat identified in the habitat surveys within 250 feet of construction activity, between 14 and 4 days prior to initiating ground disturbance related to Project construction activities. The 250-foot buffer zone is surveyed to identify burrows and owls outside of the Project area which may be impacted by factors such as noise and vibration (heavy equipment) during project construction. As burrowing owls may recolonize a site after only a few days, time lapses between Project activities trigger subsequent take avoidance surveys including but not limited to a final survey conducted no more than 2 days prior to ground disturbance to ensure absence. A minimum of two			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). b) The preconstruction survey will last a minimum of 3 hours and will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. 3. <u>Avoidance Measures</u> The City will employ avoidance measures described below to avoid direct take of individual burrowing owls during Project construction. *Breeding Season Avoidance Measures - February 1 to August 31* a) If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the Project area during the breeding season, the Project proponent will avoid all nest sites that could be disturbed by Project construction activities during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot no-disturbance buffer zone around active nest sites by a qualified biologist. b) If avoidance of active nests site is not feasible, construction may occur within 250 feet of active nest sites if 1) the nest is not disturbed, and 2) the Project proponent develops and implements an Avoidance, Minimization, and Monitoring Plan, subject to approval			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	by CDFW the Habitat Agency overseeing the SCVHP. The plan shall incorporate the following criteria: i. A qualified biologist monitors the owls for at least 3 days prior to Project construction to determine baseline nesting and foraging behavior (i.e., behavior without construction). The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities. ii. If there is any change in owl nesting and foraging behavior as a result of Project construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site. iii. If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the no disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from CDFW. *Non-Breeding Season Avoidance Measures – September 1 to January 31* iv. If preconstruction surveys identify evidence of western burrowing owls within 250-feet of the			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	Project area during the non-breeding season the Project proponent will establish a 250-foot no-disturbance buffer around occupied overwintering burrows as determined by a qualified biologist. v. If avoidance of occupied burrows is not feasible, construction may occur within 250 feet of overwintering burrows sites if: vi. A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction). vii. The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities. viii. If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. ix. If the owls are gone for at least one week, the Project proponent may request approval from the SCVHP Habitat Agency for qualified biologist to excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the no-disturbance buffer zone can be removed and construction may continue. Monitoring must continue as described above for the non-breeding season as long as the burrow remains active. 4. <u>Construction Monitoring and Environmental Training</u>			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	During construction, the no-disturbance buffer zones will be established and maintained where applicable and based on the Project Avoidance, Minimization, and Monitoring Plan. A qualified biologist will monitor the site consistent with the requirements described in the *Avoidance Measures,* above to ensure that buffers are enforced and owls are not disturbed. The qualified biological monitor will prepare and perform an environmental training for all Project personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone. 5. <u>Passive Relocation</u> If avoidance measures described above are not feasible under the Project, Passive Relocation may be implemented according to the protocol described in the SCVHP and in coordination with, and approval by CDFW.			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact BIO-2: The Ferric Chloride Feed Station project site is located immediately south of the uppermost reach of a remnant drainage area, which may be a remnant of the historic Artesian Slough Channel.	**MM BIO-4: Avoidance and Protection of Jurisdictional Waters** Access roads, work areas, and infrastructure shall be sited to avoid and minimize direct and indirect impacts to jurisdictional features. Where work will occur on the Project adjacent to state and federal jurisdictional waters, protection measures shall be applied to protect these features. These measures shall include the following: 1. A protective barrier (such as silt fencing) shall be erected around water features adjacent to the Project at the "top of bank" or at the feature boundary to isolate them from Project activities and reduce the potential for incidental fill, erosion, or other disturbance; 2. Signage shall be installed on the fencing to identify sensitive habitat areas and restrict construction activities; 3. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity shall occur at the Project site until a representative of the City has inspected and approved the protection fencing; and 4. The City shall ensure that the temporary fencing is continuously maintained until the Project is completed. 5. Drainage from all proposed facilities where chemical spills could occur during Project operation shall be directed away from sensitive resources and/or include other measures to minimize potential for release of potential pollutants to the environment.	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact BIO-3: Potentially jurisdictional waters of the U.S. and State occur adjacent to the Ferric Chloride Feed Station site and may be temporarily or permanently impacted during Project implementation.	**Implement:** **MM BIO-4 Avoidance and Protection of Jurisdictional Waters**	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact BIO-4: Breeding bird nests and burrows (i.e. wildlife nursery sites) may be disrupted by Project activities.	**Implement:** **MM BIO-1: Preconstruction Surveys for Nesting Birds,** **MM BIO-2: Minimize Light Pollution,** **MM BIO-3: Burrowing Owl Protection Measures**	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	CDFW, USFWS

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact BIO-5: The Project would result in the removal of three mature trees of native species located within the proposed Polymer Feed Station project site.	**MM BIO-5: Compensate for Removal of Protected Trees** The three trees to be removed in support of the Polymer Feed Station are of native species whose circumferences' are each greater than 18 inches when measured at two feet above the ground. The trees will be replaced on-site or off-site, in consultation with the City Arborist, at the accepted ratios or pay an in-lieu fee to Our City Forest to compensate for the loss of the three trees. Protected trees that are lost as a result of the Project will be replaced at a minimum of four 24-inch box trees per tree removed. Tree replacement amounts shall be subject to the City's Director of Planning, who will determine the final mitigation for impacts to protected trees. Replacement trees can be planted in a suitable location on Facility property or on other City property, to be identified by the City and approved by the Director of Planning.	Prior to, during, and after construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact BIO-6: Project development would result in the loss of land designated under the Habitat Plan as ranchlands or natural lands, result in a loss of occupied burrowing owl breeding and foraging habitat, and potentially cause take of individual burrowing owls.	**Implement:** **MM BIO-2: Burrowing Owl Protection Measures**	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	CDFW, USFWS

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
CULTURAL RESOURCES				
Impact CUL-1: While unlikely, given the general sensitivity of the Project vicinity, the inadvertent discovery of archaeological resources could be possible.	**MM CUL1: Accidental Discovery of Archaeological Resources** If discovery is made of items of historic or archaeological interest, the City's contractor shall immediately cease all work activities in the vicinity (within approximately 100 feet) of the discovery. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include the remains of stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. After cessation of excavation the contractor shall immediately contact the City. The contractor shall not resume work until authorization is received from the City. Any inadvertent discovery of cultural resources during construction shall be evaluated by a qualified archaeologist. If it is determined that the Project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA *Guidelines*, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning	During construction activities	Director of Planning, Building & Code Enforcement, Qualified archaeologist	Director of Planning, Building & Code Enforcement and appropriate Native American representatives

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, the archaeologist shall develop a treatment plan in consultation with the City and appropriate Native American representatives (if the find is of Native American origin).			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact CUL-2: There is no indication that the Project area has been used for burial purposes in the recent or distant past. Although unlikely, the discovery of human remains during Project construction is possible.	**MM CUL2: Accidental Discovery of Human Remains** Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California, in the event of the discovery of human remains during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he shall notify the Native American Heritage Commission who shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the land owner shall re-inter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.	During construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement and appropriate Native American representatives

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
HAZARDS AND HAZARDOUS MATERIALS				
Impact HAZ-1: Excavation anywhere within the Project area could potentially result in the encounter of contaminated soils. As a result, the potential exists for workers to encounter hazardous materials in the soil during construction of the proposed Project facilities.	**MM HAZ-1a: Pre-Construction Hazardous Materials Assessment** Prior to issuance of grading permits for Project construction, the City or its contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and/or groundwater quality. The City shall conduct a site assessment including potential testing of soil and/or groundwater, and if testing reveals soil and/or groundwater concentrations that exceed applicable regulatory screening levels, the City shall contact the Santa Clara County Department of Environmental Health (SCCDEH) or Regional Water Quality Control Board (RWQCB), as appropriate, to secure regulatory oversight. The work plan will establish the sampling and laboratory analysis program which may include the following: analysis of subsurface soil samples within the Project area for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and VOCs or any other chemicals of concern to evaluate the potential presence of contamination; groundwater samples if subsurface excavations are anticipated to require dewatering;. and additional analyses for VOCs and SVOCs for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills. The results of the hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b and the Soil and	Prior to construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement, SCCDEH, and RWQCB

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	Groundwater Management Plan prepared in accordance with Mitigation Measure HAZ-1c to determine whether: specific soil and groundwater management and disposal procedures for contaminated materials are required; excavated soils are suitable for reuse; and construction worker health and safety procedures for working with contaminated materials are required. If the pre-construction hazardous materials assessment identifies the presence of soil and/or groundwater contamination at concentrations in excess of applicable regulatory screening levels (Environmental Screening Levels [ESLs] or California human health screening levels [CHHSLs]) for proposed site use, the City shall complete site assessment and remedial activities required by the regulatory agency to ensure that residual soil and/or groundwater contamination, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment.			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	MM HAZ-1b: Health and Safety Plan The City shall require the construction contractor to retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Because anticipated contaminants vary depending upon the location of proposed improvements in the Project area and may vary over time, the HASP shall address site-specific worker health and safety issues during construction of the individual projects. The HASP shall include the following information. • Results of sampling conducted in accordance with Mitigation Measure HAZ-1a. • All required measures to protect construction workers and the general public by including engineering controls, monitoring, and security measures to prevent unauthorized entry to the construction areas and to reduce hazards outside of the construction areas. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. • Required worker health and safety provisions for all workers potentially exposed to contaminated materials, in accordance with state and federal worker safety regulations, and designated qualified individual personnel responsible for implementation of the HASP.	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement and SCCDEH

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	• The contractor shall have a site health and safety supervisor fully trained pursuant to hazardous materials regulations be present during excavation, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release of a hazardous substance or an emergency spill. The site health and safety supervisor shall direct procedures to be followed in the event that an unanticipated hazardous materials release with the potential to impact health and safety is encountered. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release; notifying SCCDEH and retaining a qualified environmental firm to perform sampling, remediation, and/or disposal. • Documentation that HASP measures have been implemented during construction. • Provision that submittal of the HASP to the City, or any review of the contractor's HASP by the City, shall not be construed as approval of the adequacy of the contractor's health and safety professional, the contractor's HASP, or any safety measure taken in or near the construction site. The contractor shall be solely and fully responsible for compliance with all			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	laws, rules, and regulations applicable to health and safety during the performance of the construction work.			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	MM HAZ- HAZ-1c: Soil and Groundwater Management Plan If ground-borne hazardous materials are identified under the Pre-Construction Hazardous Materials Assessment, the City shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan, subject to review by the City, that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction. The plan shall include all necessary procedures to ensure that excavated materials and fluids generated during construction are stored, managed, and disposed of in a manner that is protective of human health and in accordance with applicable laws and regulations. The plan shall include the following information. • Step-by-step procedures for evaluation, handling, stockpiling, storage, testing, and disposal of excavated material, including criteria for reuse and offsite disposal. All excavated materials shall be inspected prior to initial stockpiling, and spoils that are visibly stained and/or have a noticeable odor shall be stockpiled separately to minimize the amount of material that may require special handling. In addition, excavated materials shall be inspected for buried building materials, debris, and evidence of underground storage tanks; if identified, these materials shall be stockpiled separately and characterized in accordance with landfill disposal requirements. If some of the spoils do not meet the	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement and SCCDEH

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Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	reuse criteria and/or debris is identified, these materials shall be disposed of at a permitted landfill facility. • Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils. • Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method to analyzed groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods.			

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
Impact HAZ-2: While the Project area themselves are not listed on a regulatory agency list of hazardous materials sites, it is possible that contaminated soil or groundwater could occur due to adjacent hazardous materials site listings.	**Implement:** **MM HAZ-1a: Pre-Construction Hazardous Materials Assessment,** **MM MM HAZ-1b: Health and Safety Plan,** **MM HAZ- HAZ-1c: Soil and Groundwater Management Plan**	Prior to and during construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement, SCCDEH, and RWQCB

MITIGATION MONITORING AND REPORTING PROGRAM IRON SALTS PROJECT				
Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
CUMULATIVE				
Impact MFS-1: The Project could result in impacts that are individually limited, but cumulatively considerable.	**MM C-TR: Implement Coordinated Transportation Management Plan.** Prior to construction, the City's contractor(s) shall develop a Coordinated Transportation Management Plan and work with other projects' contractors and appropriate City departments (e.g., Emergency Services, Fire, Police, Transportation) to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Project as well as planned Facility improvements and land uses, and to address the transportation impact of the overlapping construction projects within the vicinity of the Project in the region. The transportation management plan shall include, but not be limited to, the following requirements: • Coordination of individual traffic control plans for the Project with nearby projects. • Coordination between the Project contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address: - Full and partial roadways closures - Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices - Bicycle/Pedestrian detour plans, where	Prior to construction activities	Director of Planning, Building & Code Enforcement	Director of Planning, Building & Code Enforcement

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Impact	**Mitigation**	**Timeframe for Implementation**	**Responsibility for Implementation**	**Oversight of Implementation**
	applicable - Parking along public roadways - Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites • Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.			

SOURCE: San José / Santa Clara, **Regional Wastewater Facility Iron Salt Feed Station Project Initial Study**, May 2015.