

Initial Study

**SAN JOSÉ-SANTA CLARA REGIONAL
WASTEWATER FACILITY OUTFALL
BRIDGE AND INSTRUMENTATION
IMPROVEMENTS PROJECT**

File No. PP19-073

Prepared by



April 2021

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.

PROJECT NAME: San José-Santa Clara Regional Wastewater Facility (RWF) Outfall Bridge and Instrumentation Improvements

PROJECT FILE NUMBER: PP19-073

PROJECT DESCRIPTION: Provide the City with a safe footbridge across the RWF's Outfall Channel, reliable instrumentation for monitoring of the RWF's effluent water quality and quantity, and improved road access, fiber-optic communications, and flood and erosion protection for the Sulfur Dioxide (SO₂) Building on an approximately 25 gross acre site.

PROJECT LOCATION: San José-Santa Clara Regional Wastewater Facility, 700 Los Esteros Road, San José, CA 95134, starting at the Filtration Influent Pumping Station extending north of the Outfall Bridge to the southern edge of the San Francisco Bay.

ASSESSORS PARCEL NO.: 01531024

COUNCIL DISTRICT: 4

APPLICANT CONTACT INFORMATION: Catherine Borrowman, City of San José Environmental Services Department, 200 East Santa Clara Street, 10th Floor, San José, CA 95113-1905, (408) 975-2578

FINDING

The Director of Planning, Building and Code Enforcement finds the project described above would not have a significant effect on the environment if certain mitigation measures are incorporated into the project. The attached Initial Study identifies one or more potentially significant effects on the environment for which the project applicant, before public release of this Mitigated Negative Declaration (MND), has made or agrees to make project revisions that will clearly mitigate the potentially significant effects to a less than significant level.

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

- A. **AESTHETICS** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- B. **AGRICULTURE AND FORESTRY RESOURCES** – The project would not have a significant impact on this resource, therefore no mitigation is required.

C. AIR QUALITY.

Impact AIR-1: The Project could 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.

MM AIR-1.1: Bay Area Air Quality Management District (BAAQMD) Basic Construction Mitigation Measures

Construction contractors shall be required to implement the following BAAQMD recommended basic construction mitigation measures to reduce fugitive dust emissions.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.
- 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.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

D. BIOLOGICAL RESOURCES.

Impact BIO-1: Implementation of the Project could 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.

MM-BIO-1: Construction Worker- and Vehicle-related Measures.

Prior to construction, all construction workers shall take part in an environmental awareness

program conducted by an agency-approved biologist. The biologist shall train work crews in standard procedures for identifying and avoiding impacts to all special-status species with the potential to occur in the work area (steelhead – Central California Coast DPS, Chinook salmon – Central Valley fall-run ESU, longfin smelt, western pond turtle, Ridgway's rail, black rail, western burrowing owl, birds protected by the Migratory Bird Treaty Act, salt marsh harvest mouse, salt marsh wandering shrew, Congdon's tarplant and saline clover). The awareness program shall be conducted at the start of construction and thereafter as required for new construction personnel.

At the end of each work day, all excavations (i.e. holes, construction pits, and trenches) of a depth of 8 inches or greater shall be covered with plywood or other hard material, and gaps around the cover shall be filled with dirt, rocks, or other appropriate material to prevent entry by wildlife. If excavations cannot be covered, then they shall include escape ramps constructed of either dirt fill, wood planking, or other appropriate material installed at a 3:1 grade (i.e., an angle no greater than 30 degrees) to allow wildlife that fall in a means to escape.

MM-BIO-2: Seasonal Avoidance of Sensitive Aquatic Species

In-water construction work with the potential to result in short-term impacts to sensitive aquatic species, including project activities that are expected to create turbidity or disturb the streambed, shall be conducted only from June 1 through November 30 (the approved National Oceanic and Atmospheric Administration (NOAA) work window).

MM-BIO-3: Western Pond Turtle Protection Measures

- Prior to the start of construction activities, the project proponent shall retain a qualified biologist to conduct preconstruction surveys for western pond turtles in all suitable habitats (aquatic and upland) in the vicinity of the work site. Surveys shall take place no more than 72 hours prior to the onset of site preparation and construction activities with the potential to disturb turtles or their habitat.
- If no western pond turtles are observed during the preconstruction surveys, no further action is required.
- If preconstruction surveys identify active western pond turtle nests within the project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest following hatching. The radius of the buffer zone and the duration of exclusion shall be determined in coordination with the California Department of Fish and Wildlife (CDFW). The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist.
- If western pond turtle is identified during preconstruction surveys, or during construction, a qualified biologist shall monitor construction activities in the Project site within 50 feet of suitable western pond turtle habitat, and remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval.
- If any turtles are found in the project site, construction activities shall halt within 50 feet and the qualified biologist shall be notified. Construction activities can continue, or commence, more than 50 feet from the western pond turtle individual; however, the qualified biologist shall still be notified. If the biologist determines the turtle is a western pond turtle, the qualified biologist shall relocate the western pond turtle into nearby suitable habitat consistent with CDFW protocols and handling permits.

MM-BIO-4: Special-Status Bird Species Protection Measures

- The project proponent and its contractors shall avoid conducting vegetation removal or ground

disturbing activities during the nesting season (February 1–August 31, inclusive).

- If avoidance of the nesting season is not possible, the ET or its contractor shall retain a qualified wildlife 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, within 7 days prior to the resumption of construction. Surveys shall be performed for the Project areas and for suitable habitat within 300 feet. If an active nest is discovered, 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 flags or fencing that is easily identified by the construction crew and will not affect the nesting birds. In general, minimum buffer zone widths shall be as follows: 100 feet (radius) for non raptor species and 300 feet (radius) for raptor species; however, the buffer zone widths may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer zone widths and other avoidance measures may be modified based on consultation with CDFW and the U.S. Fish and Wildlife Service (USFWS). Buffer widths shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest.
- The project proponent and its contractors shall retain a qualified wildlife biologist and conduct surveys for California Ridgway's rail and California black rail prior to initiation of construction activities. These surveys are required for construction activities conducted at any time of the year.
- If either of these species is detected within 700 feet of the project site during their nesting season (February 1–August 31, inclusive), all construction activities within 700 feet of suitable nesting or forage habitat for this species will be delayed until after the nesting season is over.
- If either of these species is detected within 700 feet of the project site during the non-nesting season (September 1–January 31), construction activities can commence, but all vegetation within suitable habitat for the species shall be cleared by hand or with hand tools and a biologist will be retained on site during vegetation clearing activities to ensure that no birds are injured. Once the construction site is devoid of vegetation providing suitable habitat for the species, regular construction can commence.
- If any birds initiate nests within the established buffer distances while construction is occurring, then it is assumed that they are habituated to the construction activities, and construction can continue as long as the birds or their nests are not physically harmed.

MM-BIO-5: Western Burrowing Owl Protection Measures:

To avoid or minimize direct impacts of project activities on western burrowing owls, the City shall ensure the following Capital Improvements Program (CIP) specifications for western burrowing owl are implemented

1. The contractor shall not disturb western burrowing owls and any occupied burrows or nests.
2. If western burrowing owls are encountered during construction, work must stop, and the Engineer should be notified immediately. A survey must be performed by the qualified biologist before construction work can proceed.
3. If surveys identify evidence of western burrowing owls within 250 feet of the project area, the contractor shall:
 - a. Establish a 250-foot exclusion zone around the occupied burrow or nest, as directed by the qualified biologist
 - b. Avoid the exclusion zone and all nests that could be disturbed by project construction activities during the remainder of the breeding season or while the burrow is occupied by adults or young

- c. Not resume construction activities within the 250-foot zone until the Engineer provides written Notice to Proceed based on the recommendation of the qualified biologist
4. If avoidance of occupied burrows is not feasible during February 1 to August 31 breeding season, construction may occur within 250 feet of the occupied burrows if the burrows are not disturbed and the qualified biologist prepares and implements a Monitoring Plan approved by the California Department of Fish and Wildlife.
5. If avoidance of occupied burrows is not feasible during September 1 to January 31 non-breeding season, construction may occur within 250 feet of the overwintering burrows as long as the contractor's qualified biologist monitors the owls for at least 3 days prior to Project construction and during construction and finds no change in owl foraging behavior in response to construction activities. If there is any change in owl foraging behavior as a result of construction activities, activities shall cease within the 250-foot exclusion zone.

MM-BIO-6: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Protection Measures

- Prior to initiation of work in suitable habitat, an agency-approved biologist shall be retained to conduct preconstruction surveys areas where disturbance is planned. Surveys shall take place no more than 24 hours before the onset of vegetation removal or ground-disturbing activities.
- Prior to construction on the east side of the outfall channel or Artesian Slough, silt exclusion fencing with wire-mesh backing shall be installed by hand between the eastern edge of the project area and the non-tidal seasonal marsh, to prevent the mouse/shrew from entering the active work area, protect habitat within the marsh from earthmoving activities or accidental spills, and to exclude workers from the marsh. The fence should have a minimum above-ground height of 30 inches, and the bottom should be buried to a depth of at least 6 inches so that mice cannot crawl under the fence. Any supports for the salt marsh harvest mouse exclusion fencing (e.g., t-posts) will be placed on the inside of the project area. The last 5 feet of the fence shall be angled away from the road to direct wildlife away from the road. Installation of the exclusion fence shall be overseen by an agency-approved biologist.
- An agency-approved biologist shall be present to monitor the fence weekly to assure it remains functional to exclude the mouse/shrew from the work area and will recommend needed fence repairs to the project proponent.
- Ground disturbance to suitable mouse/shrew habitat (including, but not limited to pickleweed, and emergent salt marsh vegetation such as bulrush and cattails) will be avoided to the extent feasible. Where mouse/shrew habitat cannot be avoided, an agency-approved biologist shall supervise the hand removal of any vegetation in mouse/shrew habitat to avoid impacts on the mouse/shrew. Such monitoring will occur for the duration of all clearing work within suitable habitat.
- If mouse/shrew individuals are observed in or near the Project work area, all construction activities shall cease until the USFWS and CDFW can be contacted and appropriate avoidance, protection, or relocation measures can be developed, approved, and implemented. Depending on the specific location and agency guidance, these measures may include relocation or buffer distances.

MM-BIO-7: Survey for Rare Plants

- Prior to the start of construction, a rare plant survey shall be conducted by a qualified biologist in accordance with CDFW's 2009 Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.
- If a special status plant species is encountered on the project site, it shall be documented and submitted to the California Natural Diversity Database (CNDDB). The project shall avoid

impacts during construction by clearly marking and delineating the location in the field and encircling the species with protective silt exclusion fencing. Visible signage shall be attached to the silt fencing to instruct workers to stay out of the sensitive rare plant area. If direct impacts cannot be avoided, then the District shall consult with CDFW to devise a plan for minimizing the impacts by one or more of the following methods: (1) salvage and replanting of plants at the same location following construction; (2) salvage and relocation of the plants to a suitable off-site location with long-term assurance of site protection; (3) collection of seeds or other propagules for reintroduction at the site or elsewhere; and (4) payment of fees in lieu of preservation of individual plants, to be used for conservation efforts elsewhere.

Impact BIO-3: Implementation of the Project could 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.

MM-BIO-7: contain Bridge Deconstruction Debris

ET or its contractor shall install measures to prevent debris associated with the deconstruction from entering Artesian Slough.

- No bridge demolition debris shall be allowed to enter Artesian Slough or be placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters. Staged construction materials with the potential to be eroded/entrained during a rainfall event will be covered every night and during any rainfall event.
- Floating booms shall be used to contain any accidental debris discharged into Artesian Slough, and any debris shall be removed as soon as possible, and no later than the end of each workday. If feasible, personnel in workboats within the work area will immediately retrieve such debris for proper handling and disposal. Non-buoyant debris discharged into waters shall be recovered as soon as possible after discharge.
- Accidental debris discharged into the outfall channel will be collected at the weir at the downstream terminus of the channel. No debris discharged into the outfall channel will be allowed to enter Artesian Slough.

E. CULTURAL RESOURCES

Impact CUL-1: Implementation of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section §15064.5

MM-CUL-1.1: Inadvertent Discovery of Archaeological Resources.

If prehistoric or historic-era archaeological resources are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the Environmental Services Department (ESD) personnel and Planning, Building and Code Enforcement (PBCE) Supervising Environmental Planner. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

The City’s ESD or its contractor shall retain a Secretary of the Interior-qualified archaeologist to inspect the resource within 24 hours of discovery. If it is determined that the project could damage a historical resource as defined by CEQA, construction shall cease in an area determined

by the archaeologist until a mitigation plan has been prepared, approved by the PBCE Supervising Environmental Planner, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who will be identified by the Native American Heritage Commission [NAHC]). If the Native American representative identifies the find as a tribal resource, ESD or its contractor shall proceed to Mitigation Measure CUL-1.2. For archaeological resources, the archaeologist, in consultation with the PBCE Supervising Environmental Planner and the City's Historic Preservation Officer, shall determine when construction can commence.

The mitigation for archaeological resources shall include preservation in place, or, if preservation in place is not feasible, data recovery through excavation. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding resource site into a permanent conservation easement. If preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to the satisfaction of the PBCE Supervising Environmental Planner to recover the scientifically consequential information from and about the resource, prior to any excavation at the resource site. Treatment for most resources would consist of (but would not necessarily be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

MM CUL-1.2: Inadvertent Discovery of Tribal Cultural Resources.

The Native American representative shall make recommendations to the City of San José for the appropriate measures to treat the tribal cultural resource, which will be implemented in accordance with Section 15064.5 of the CEQA Guidelines.

Impact CUL-2: Implementation of the Project could disturb human remains, including those interred outside of formal cemeteries

MM-CUL-2: Inadvertent Discovery of Human Remains

If human remains are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the PBCE Supervising Environmental Planner. The ESD shall contact the Santa Clara County Coroner to determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. The Native American Heritage Commission (NAHC) would be contacted within 24 hours if the Coroner determines that the remains are Native American. The NAHC would then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn shall make recommendations to the City of San José for the appropriate means of treating the human remains and any associated funerary objects,

which shall be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines as summarized below:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - (B) If the coroner determines the remains to be Native American:
 1. The coroner shall contact the Native American Heritage Commission within 24 hours.
 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
 - (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - (B) The descendant identified fails to make a recommendation; or
 - (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

F. ENERGY – The project would not have a significant impact on this resource, therefore no mitigation is required.

G. GEOLOGY AND SOILS – The project would not have a significant impact on this resource, therefore no mitigation is required.

H. GREENHOUSE GAS EMISSIONS

Impact GHG-1: The Project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

MM-GHG-1: Construction specifications for the Project shall require contractors to implement the following measures:

- To comply with the City's Construction and Demolition Debris program, construction contractors shall use an authorized hauler to haul all construction and demolition debris from the Project to a certified waste diversion facility.
- Construction contractors shall use locally extracted, manufactured or recycled and reused materials including construction material to the extent feasible.
- Cut and fill from the Project site shall be balanced to the extent feasible

I. HAZARDS AND HAZARDOUS MATERIALS.

Impact HAZ-1: Implementation of the Project could 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 and be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

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

Prior to construction, ET or ESD's contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and groundwater quality. If the results reveal soil and/or groundwater contamination exist in excess of applicable regulatory screening levels (Environmental Screening Levels or California human health screening levels) for the proposed site use, the City shall contact the appropriate regulatory agency (the Santa Clara County Department of Environmental Health [SCCDEH], the Regional Water Quality Control Board [RWQCB], and/or Department of Toxic Substances Control [DTSC]) as appropriate. The ESD or its contractor shall complete subsequent site investigations and/or remedial activities required by the regulatory agency to ensure that residual impact, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment.

The results of the pre-construction hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with Mitigation Measure HAZ-1b, below, and if a soil sample exceeds regulatory screening levels, a Soil and Groundwater Management Plan would be prepared in accordance with Mitigation Measure HAZ-1c, below, 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.

MM-HAZ-1b: Health and Safety Plan

The ET or its contractor shall retain a qualified environmental professional to prepare a site-specific Health and Safety Plan (HASP) in accordance with federal Occupational Safety and Health Administration (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. 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 implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to: 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, and/or DTSC; and 3) 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 ESD, or any review of the contractor's HASP ESD, shall not be construed as approval of the adequacy of the contractor as a 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 hazardous materials or contaminated soil and groundwater above regulatory screening levels are identified under the pre-construction hazardous materials assessment, done in accordance with Mitigation Measure HAZ-1a, ESD shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction.

The Soil and Groundwater Management Plan will establish the sampling and laboratory analysis program which may include the following: analysis of subsurface soil samples within the Project site for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and volatile organic compounds (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 semi-volatile organic compounds

(SVOCs) for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills.

The Soil and Groundwater Management 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 an appropriately 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 be used to analyze groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods.

J. HYDROLOGY AND WATER QUALITY

Impact HYD-1: Implementation of the Project could violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

MM-HYD-1: Water Quality Best Management Practices During In-water and Near Water Work Activities

In order to avoid and/or minimize potential impacts to water quality (and jurisdictional waters) during Project activities that would be conducted in or over waters, the following standard construction BMPs would be implemented by the contractor to prevent releases of construction materials or hazardous materials and to avoid other potential environmental impacts:

- In-water work with the potential to harm fish and aquatic resources (e.g., grouting and rip-rap placement) will be conducted at low tide to the extent feasible.
- All project components will be designed using materials that follow local, California, and national environmental regulations; this includes the use of underwater grout (e.g., cementitious or epoxy specifically chosen for in-water applications).
- No debris, rubbish, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be allowed to enter into jurisdictional waters or placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters. Staged construction materials with the potential to

be eroded/entrained during a rainfall event will be covered every night and during any rainfall event (as applicable).

- All construction material, wastes, debris, sediment, rubbish, trash, fencing, etc., will be removed from the project site daily during construction, and thoroughly at completion of the project. Debris will be transported to an authorized upland disposal area.
- To isolate potential water quality impacts from rip-rap placement and grouting, a silt curtain with floating boom, or another effective technology, will be placed to constrain the construction footprint from Artesian Slough. The silt curtain will be placed within 500-feet of the in-water construction activity. The exact location will be determined, at the discretion of the contractor, with the goal to maximize functionality of the curtain. The contractor will also ensure curtain placement is upstream of the water quality monitoring location described below. The silt curtain will accomplish the following:
 - Isolate construction activities from Artesian Slough
 - Contain turbidity and sediment resulting from the construction activity
 - Deter fish, and other aquatic species, from accessing the active construction area
 - Allow water to pass between Artesian Slough and the outfall channel with the tides
- The silt curtain will be at least the height of the outfall weir (approximately 6 feet tall) to maintain a barrier at high tide. The curtain will consist of permeable filter fabric supported by a line of floats (boom) on the water surface and a line of weights/anchors on the bottom to secure the curtain to the channel bed to maintain coverage around the active in-water construction area. The curtain would be secured to land and to the weir with anchors at the channel banks to hold the curtain in place.
- At the request of BCDC, CDFW, the Water Board, or USACE, the contractor will prepare a plan that provides a description of methods to be used to direct flow away from the active construction work area in Artesian Slough prior to implementation. Temporary measures will be used to minimize the volume of direct flow from the outfall channel into the active construction site to minimize the movement of construction-related turbidity increases into Artesian Slough.
- Floating booms shall be used to contain any accidental debris discharged into waters, and any debris shall be removed as soon as possible, and no later than the end of each workday. If feasible, personnel in workboats within the work area will immediately retrieve such debris for proper handling and disposal. Non-buoyant debris discharged into waters shall be recovered (by divers) as soon as possible after discharge. Protective measures will be utilized to prevent accidental discharges of oils, gasoline, or other hazardous materials to jurisdictional waters during fueling, cleaning, and maintenance of equipment. Well-maintained equipment will be used to perform construction work, and, except in the case of failure or breakdown, equipment maintenance will be performed off-site. Crews will check heavy equipment daily for leaks, and if leaks are discovered it will be immediately contained and use of the equipment will be

suspended until repaired. The source of the leak will be identified, material will be cleaned up, and the cleaning materials will be collected and properly disposed.

- Vehicles and equipment used during the course of construction will be serviced offsite. On-site fueling of marine equipment (if any) will comply with U.S. Coast Guard requirements. Smaller equipment, such as generators and hand tools will be fueled using fuel tanks, hoses, and fuel cans. Fueling locations will be inspected after fueling to document that no spills have occurred. Any spills will be cleaned up immediately.

MM-HYD-2: Water Quality Monitoring

Prior to and during in-water construction, water quality measurements will be collected, and recorded within Artesian Slough. Data will be collected at the City's previously established monitoring location within Artesian Slough, approximately 1,500 feet downstream of the outfall weir. Measurement data will be collected prior to the start of construction each day to establish current ambient, baseline conditions. Subsequently, water quality data will be collected every two hours during construction to ensure compliance with the water quality metrics described below. All measurements will be collected at the top of the water column to control for the natural variability in water quality at different depths, and to ensure data are comparable. Exceedance of any of the water quality metrics described below would trigger a stop to in-water work, and adjustment to the water quality BMPs (as described in MM HYD-1) until it can be demonstrated that water quality objectives can be maintained. The water quality monitoring parameters enumerated below represent a consolidation of applicable regulatory requirements as outlined within the Marine Water Quality Objectives (MWQO) for the San Francisco Bay Basin.

- Visual: No significant floating particulates, suspended materials, grease, or oil shall be visible. No aesthetically undesirable coloration of the water surface; oils, grease, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water.
- Turbidity. Given the wide historic range, and high daily variability, in documented turbidity within Artesian Slough, strict adherence to Basin Plan objectives is infeasible. As a result, the following thresholds are proposed:
 - No more than 50 Nephelometric Turbidity Units (NTUs) above background when background between 0 and 100 NTUs.
 - No more than 50 percent above background turbidity levels when background is greater than 100 NTUs.
- Dissolved oxygen (DO): DO levels will not drop below 5.0 mg/l. If natural factors cause lesser concentrations, construction will cause no further reduction in the concentration of DO.
- pH: Construction will cause no more than a 0.5 increase or decrease in pH and pH levels will remain within 6.5 to 8.5.
- If required by natural resource agencies, pre-construction and post-construction sampling for total Polycyclic Aromatic Hydrocarbons (PAHs) may be conducted as follows: pre-construction sampling for total PAHs prior to construction activity to establish ambient PAH concentration in Artesian Slough, and at the conclusion of project construction, conduct additional PAH sampling for total PAHs. Post-construction total PAHs are not to exceed 15

µg/l, unless it can be shown that post-construction site concentrations are similar to the ambient levels measured during pre-construction sampling.

- K. LAND USE AND PLANNING** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- L. MINERAL RESOURCES** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- M. NOISE** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- N. POPULATION AND HOUSING** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- O. PUBLIC SERVICES** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- P. RECREATION** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- Q. TRANSPORTATION / TRAFFIC** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- R. TRIBAL CULTURAL RESOURCES**

Impact TRC-1: Implementation of the Project could cause a substantial adverse change in the significance of a tribal cultural resource pursuant to §21074.

See Cultural Resources section, above for MM CUL-1.1: Inadvertent Discovery of Archaeological Resources, MM CUL-1.2: Inadvertent Discovery of Tribal Cultural Resources, and MM CUL-2: Inadvertent Discovery of Human Remains

- S. UTILITIES AND SERVICE SYSTEMS** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- T. WILDFIRE** – The project would not have a significant impact on this resource, therefore no mitigation is required.
- U. MANDATORY FINDINGS OF SIGNIFICANCE**

Cumulative impacts would be less than significant. The proposed Project would implement the identified mitigation measures and would have either have no impacts or less-than-significant impacts on riparian habitat or other sensitive natural communities, migration of species, or applicable biological resources protection ordinances. Therefore, the proposed Project would not contribute to any cumulative impact for these resources. The Project would not cause changes in the environment that have any potential to cause substantial adverse direct or indirect effects on human beings.

PUBLIC REVIEW PERIOD

Before 5:00 p.m. on **Thursday May 13, 2021** any person may:

1. Review the Draft Mitigated Negative Declaration (MND) as an informational document only; or
2. Submit written comments regarding the information and analysis 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.

Chu Chang, Acting Director
Planning, Building and Code Enforcement

04/12/2021

Date

Deputy

Kara Hawkins
Environmental Project Manager

Circulation period: April 14, 2021 to May 13, 2021

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ACRONYMS AND ABBREVIATIONS

AADT	annual average daily traffic
APE	Area of Potential Effects
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
BOD	biochemical oxygen demand
CAA	Clean Air Act
CAP	Clean Air Plan
CBC	California Building Code
CEC	California Energy Commission
CESA	California Endangered Species Act
CCC	Central California Coast
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbons
CGS	California Geological Survey
CH ₄	methane
CIDH	cast in drilled hole
CIP	Capital Improvement Program
CLSM	controlled low strength material
CMA	Congested Management Agency
CMP	Congestion Management Program
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CRPR	California Rare Plant Rank
CV	Central Valley
CWA	Clean Water Act
dba	decibels
DNL	day-night noise level
DO	dissolved oxygen
DPM	Diesel Particulate Matter
DPS	Distinct Population Segment
DTSC	United States Department of Toxic Substance Control
DWR	California Department of Water Resources
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
ESA	Environmental Science Associates
ESD	Environmental Services Department
ESU	Evolutionarily Significant Unit

FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIPS	Filtration Influent Pumping Station
FMP	Fisheries Management Plan
GHG	greenhouse gas
GSA	groundwater sustainability agencies
GSP	Groundwater Sustainability Plans
HASP	Health and Safety Plan
HCP	Habitat Conservation Plan
HTL	high-tide line
IPaC	Information for Planning and Consultation
LED	light emitting diode
LOS	Level of Service
LTA	Local Transportation Analysis
LUST	leaking underground storage tank
MBTA	Federal Migratory Bird Treaty Act
mgd	million gallons per day
MRDS	Mineral Resources Data System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MWQO	Marine Water Quality Objectives
N ₂ O	nitrous oxide
NAVD	North American Vertical Datum
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NHPA	National Historic Preservation Act
NO _x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTU	Nephelometric Turbidity Units
NWIC	Northwest Information Center
O ₃	ozone
OCF	Owens-Corning Fiberglass Corporation
OSHA	Occupational Safety and Health Administration
PBCE	Planning, Building and Code Enforcement
PFC	perfluorocarbon
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
POTW	Publicly-Owned Treatment Works
PRC	Public Resources Code
R&HA	Rivers and Harbors Act
ROG	reactive organic gases

RWF	Regional Wastewater Facility
RWQCB	Regional Water Quality Control Board
SCADA	supervisory control and data acquisition
SCAQMD	South Coast Air Quality Management District
SCCDEH	Santa Clara County Department of Environmental Health
SCVHP	Santa Clara Valley Habitat Plan
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act of 2014
SJFD	San Jose Fire Department
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLIC	spills, leaks, investigation and cleanup
SO ₂	sulfur dioxide
SP	service population
SR	State Route
SSC	California Species of Special Concern
SVOC	semi-volatile organic compounds
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TMDL	total maximum daily load
TSS	total suspended solids
UCERF3	Uniform California Earthquake Rupture Forecast
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
VTA	Valley Transportation Authority
WERC	Western Ecological Research Center
WDR	Waste Discharge Requirement
WWTP	Wastewater Treatment Plant

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CHAPTER 1

Project Description

The following text provides relevant background for the San José-Santa Clara Regional Wastewater Facility's (RWF or Facility) Outfall Bridge and Instrumentation Improvements Project (the Project), which is City of San José File Number PP19-073. It also identifies the Project location and describes the Project area and its vicinity, identifies the Project objectives and need, reviews proposed facilities and operations, and summarizes the proposed construction process and schedule.

1.1 Introduction

The Facility treats domestic, industrial, and commercial wastewater from San José, Santa Clara, Campbell, Los Gatos, Monte Sereno, Cupertino, Milpitas, and Saratoga; and parts of 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 105 million gallons per day (mgd) of wastewater, with an existing maximum treatment capacity of 167 mgd. The Facility provides a tertiary level of treatment, in accordance with state and local regulations. The Facility 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 itself 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's final effluent is discharged to the southern portion of the San Francisco Bay by way of a discharge outfall channel. The range of effluent flow discharged is approximately 185 mgd in wet weather to 60 mgd in dry weather. Typical average effluent flow in the dry season is approximately 80 mgd (San José-Santa Clara RWF, 2018). Conditions for this discharge are specified by the National Pollutant Discharge and Elimination System (NPDES) wastewater discharge permit, and other permits issued by the State Water Resources Control Board. The water in the outfall channel is managed by the Facility in compliance with the San Francisco Bay Regional Water Quality Control Board (RWQCB) Order Number R2-2014-0034, the Nutrients Watershed Permit (NPDES No. CA 0038873, Order No. R2-2014-0014), and the Mercury and PCBs Watershed Permit, (Permit No. CA 0038849, Order No. R2-2017-0041). Following tertiary treatment, about 80 percent of the treated water is piped via two subsurface parallel pipelines to the

outfall channel. The remaining 20 percent of the tertiary treated effluent is treated further and utilized as recycled water by South Bay Water Recycling or Valley Water (City of San Jose, 2019).

The location where these two pipes enter and discharge to the outfall channel is called the “daylight station”. This treated discharge exits the parallel pipelines into the outfall channel, then flows through the outfall channel until it flows over the outfall weir structure, into Artesian Slough, to lower Coyote Creek, and eventually into San Francisco Bay. The concrete weir structure present in the outfall channel is intended to maintain a minimum water level in the 2,600-foot long outfall channel, to facilitate discharge flow monitoring, and operation of the outfall aeration station, upstream of the weir (San Jose-Santa Clara Facility, 2019).

The Facility’s outfall channel and weir structure (which is the final point of regulatory compliance, separating the outfall channel from Artesian Slough) include effluent flow rates and water quality monitoring instrumentation. Flow meters are mounted in the two effluent pipes to monitor the volume of effluent leaving the Facility. The NPDES Permit requires effluent flow to be monitored continuously. A dissolved oxygen meter mounted in a flotation device, pH probe, and sample pump are all attached to the outfall bridge to monitor effluent water quality and provide process feedback to the operations of the Facility. A floating pump in the channel and the pump mounted to the bridge pump water to the adjacent sulfur dioxide (SO₂) building to the east of the outfall channel where equipment monitors those streams for chlorine residuals. A grab sample is collected daily from the bridge for pH testing.

In June 2018, the *Condition Assessment Report* (Condition Assessment) was prepared as part of the Facility’s Capital Improvement Program (AECOM, 2018). This assessment concluded that the existing outfall bridge including instrumentation and related infrastructure require replacement. The Condition Assessment also recommended site repairs at and adjacent to the building (SO₂ building) and replacement of the existing power transformer. The Facility uses the outfall channel, bridge and weir to provide additional aeration when needed, monitor, and regulate discharges from the Facility, and would need to maintain that functionality during the structural replacements part of this project.

The Facility’s continuous gravity discharge of effluent water will be compromised by sea level rise in the future. The United States Army Corps of Engineers (USACE), in partnership with the California State Coastal Conservancy and Valley Water (formerly Santa Clara Valley Water District), is developing the South San Francisco Bay Shoreline Project (Shoreline Project), which will provide tidal flood protection to South San Francisco Bay (includes the Project area) by constructing protective levees and floodgates along the San Francisco Bay Shore. The Shoreline Project began pre-construction activities in 2019, and completion is expected in 2028. City of San José staff are coordinating with the proponents of the Shoreline Project about levee alignment and future phases of construction that will extend the levee along the north and west sides of the Facility biosolid lagoon areas (San Jose-Santa Clara RWF, 2018). After completion of the Shoreline Project, the Project area will be protected from the 100-year tidal flood and the residual 500-year flood risk is expected to be lower than the top of the outfall levee road, eliminating the need for a 500-year flood protection of the outfall infrastructure as part of this Project. The Shoreline Project design team plan to install a flood gate across Artesian Slough approximately

300 feet north of the Facility outfall weir to restrict tidal flows when they exceed the flooding safety threshold (USACE et al., 2015). Under normal conditions, the flood gate is not anticipated to change the tidal flow patterns in the outfall channel.

As described in more detail below, age, expected life span, maintainability, settlement and conditions of erosion on site threaten the structural integrity of the deteriorating outfall bridge and various system components on site. The Project would replace the outfall bridge and structural elements (flashboards) on the outfall weir; restore rock rip-rap erosion protection to the weir's pile foundation; replace instrumentation required for water quality monitoring; restore and improve overall site grading (maneuverability and access); restore protection to the SO₂ building foundation structure; replace instrumentation inside the SO₂ building; replace the transformer on a new pad, access vaults, and replace the flow meters at the daylight station; and install underground conduits for a fiber optic cable to facilitate reliable and secure communication between the SO₂ building, the daylight station, and the process controls systems of the Facility. Additional electrical conduits will be installed alongside the fiber optic cable conduit to provide for future project needs.

1.1.1 Relationship to the Plant Master Plan

The City has prepared the San José-Santa Clara Water Pollution Control Plant Master Plan (Plant Master Plan) for the Facility that presents 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 Plant Master Plan also includes a comprehensive land use plan for the 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 Plant¹ Master Plan Environmental Impact Report (Plant Master Plan EIR; City of San José File No. PP11-043; State Clearinghouse # 2011052074) certified in November 2013.

Because it involves repairs or restoration of failing Facility infrastructure (as opposed to a planned Facility improvement or upgrade of aging infrastructure), the Project evaluated in 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 the California Environmental Quality Act (CEQA). Completion of the Project is needed irrespective of the improvements proposed in the Plant Master Plan.

¹ The legal name of the facility remains "San José /Santa Clara Water Pollution Control Plant" but beginning in early 2013, the facility's common name was changed to San José-Santa Clara Regional Wastewater Facility.

1.2 Project Need and Objectives

Wastewater effluent is discharged into the South San Francisco Bay in a way that protects public health and water quality because of the reliable, high quality, cost-effective wastewater treatment processes used at the Facility. This project is part of a 10 year, 1.4-billion-dollar capital improvement program designed to ensure the wastewater treatment processes will continue to produce effluent water that meets current and future water quality parameters set by regulatory agencies. The Project will fulfill a need to replace aging infrastructure to enable Facility staff to maintain compliance with reporting on the measurements taken and the continuous monitoring of the effluent leaving the Facility.

The Condition Assessment conducted for the project in 2018 documented a number of physical conditions (i.e. soil erosion, a void under the building slab, insufficient protection of the weir from scour, leaking weir flashboards, decomposing bridge piers, fouled flow meters) with the bridge, building, electrical power supply and instrumentation in the Project area. It recommended replacement and restoration to address such conditions (AECOM, 2018). The purpose of the Project is to protect the SO₂ building from erosion and replace the adjacent power transformer, and to provide the City with a safe footbridge across the Facility's discharge outfall channel, reliable instrumentation and remote monitoring of the Facility's effluent water quality, and improved access to the control instruments. The Project objectives include the following key elements:

- Provision of a safe bridge to cross the Facility's outfall channel
- Restoration of a functional weir that is protected from conditions of erosion and scour
- Improvement of reliable ongoing compliance monitoring at the current locations at the outfall channel and adjacent structures (i.e., daylight station, SO₂ building, etc.)
- Safe access and foundation protection for the existing SO₂ building
- Replacement of the existing transformer at the SO₂ building
- Installation of underground conduits for a fiber optic cable and additional electrical conduits to provide for future project needs

The Facility's treatment process protects wildlife in the Southern San Francisco Bay through tertiary treatment and a meticulous monitoring program. The outfall channel is the final place where the quantity and quality of discharged effluent is monitored. Pollutant loadings to the Bay would be impossible to quantify if the flow meters fail. Wildlife in the Bay is protected by the aeration treatment the effluent receives, which raises the dissolved oxygen level of the water prior to its discharge into Artesian Slough in summer months. Without all of the elements proposed in this Project, the Facility's operations staff would lose valuable information that is used to maintain compliance with the Facility's permits, which are in place to protect wildlife in the Bay.

1.3 Project Location and Existing Facilities

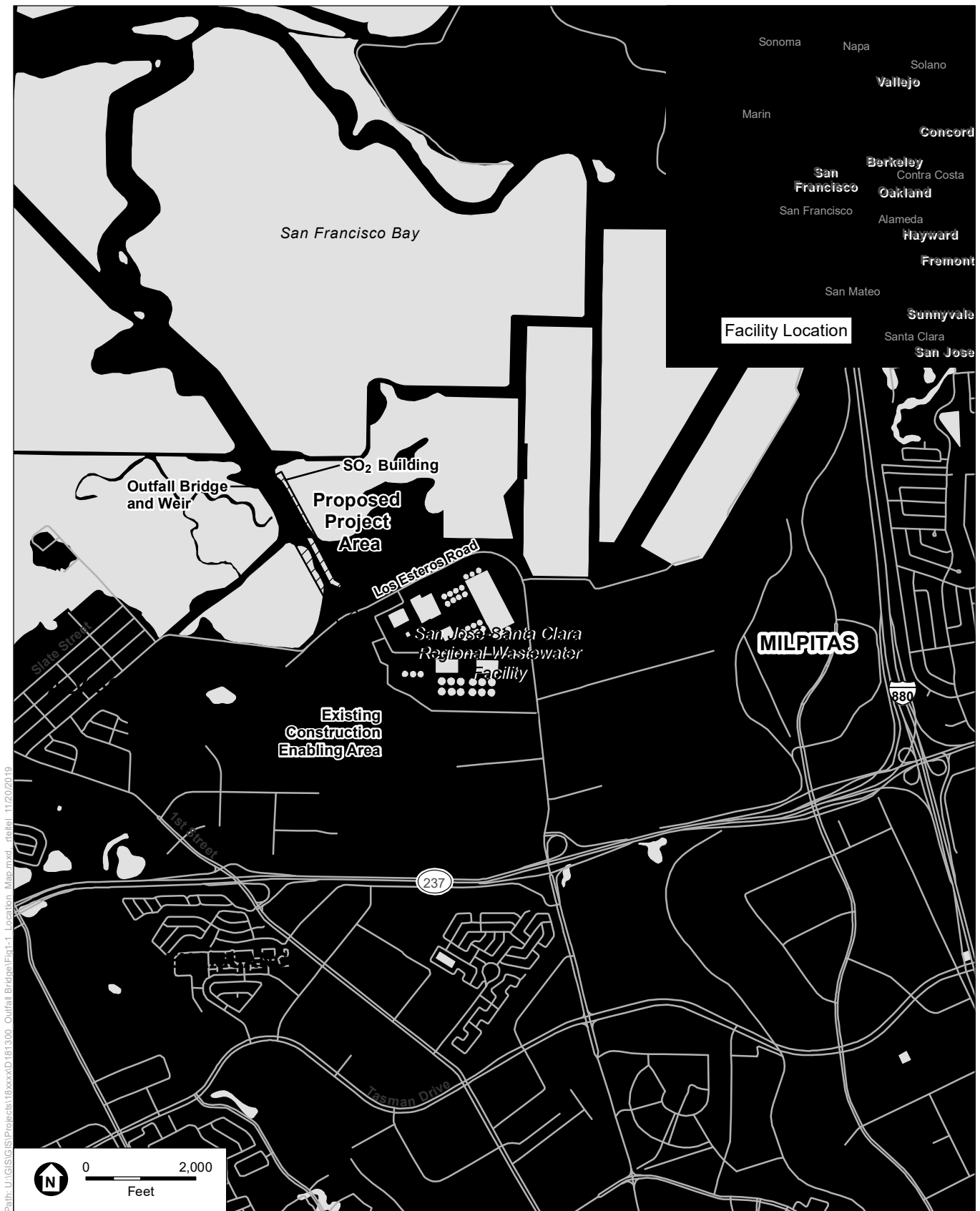
The Project would include construction adjacent to the Facility, located at 700 Los Esteros Road in the City of San José, Santa Clara County, California. The outfall channel extends northwest of the main portion of the Facility property, near the southern edge of San Francisco Bay as shown in **Figure 1-1 Project Location**. The project area (roughly from south to north) includes the Facility's Filtration Influent Pumping Station (FIPS) building, daylight station, outfall channel, outfall bridge and weir, SO₂ building, and transformer site as shown in **Figure 1-2 Project Overview**. Figure 1-2 also identifies the area of construction activities, which includes the location of existing Project components and the proposed staging, laydown, and construction access areas and an existing Construction Enabling Area, which was developed under a previous project (Construction-Enabling Improvements Addendum, File No. PP15-120). The project area of impact is approximately 3.87 acres as shown in Figure 1-2. The Project site plan identifies the proposed new features and the zone of influence associated with construction activities, including access roads and material staging and laydown (**Figure 1-3a-g**). The project study area, which encompasses all of the individual Project components listed above plus a buffer, is approximately 25 acres (**Figure 1-4**).

1.3.1 Existing Facilities

The facilities discussed below only include those that would be affected by the Project.

Outfall Bridge

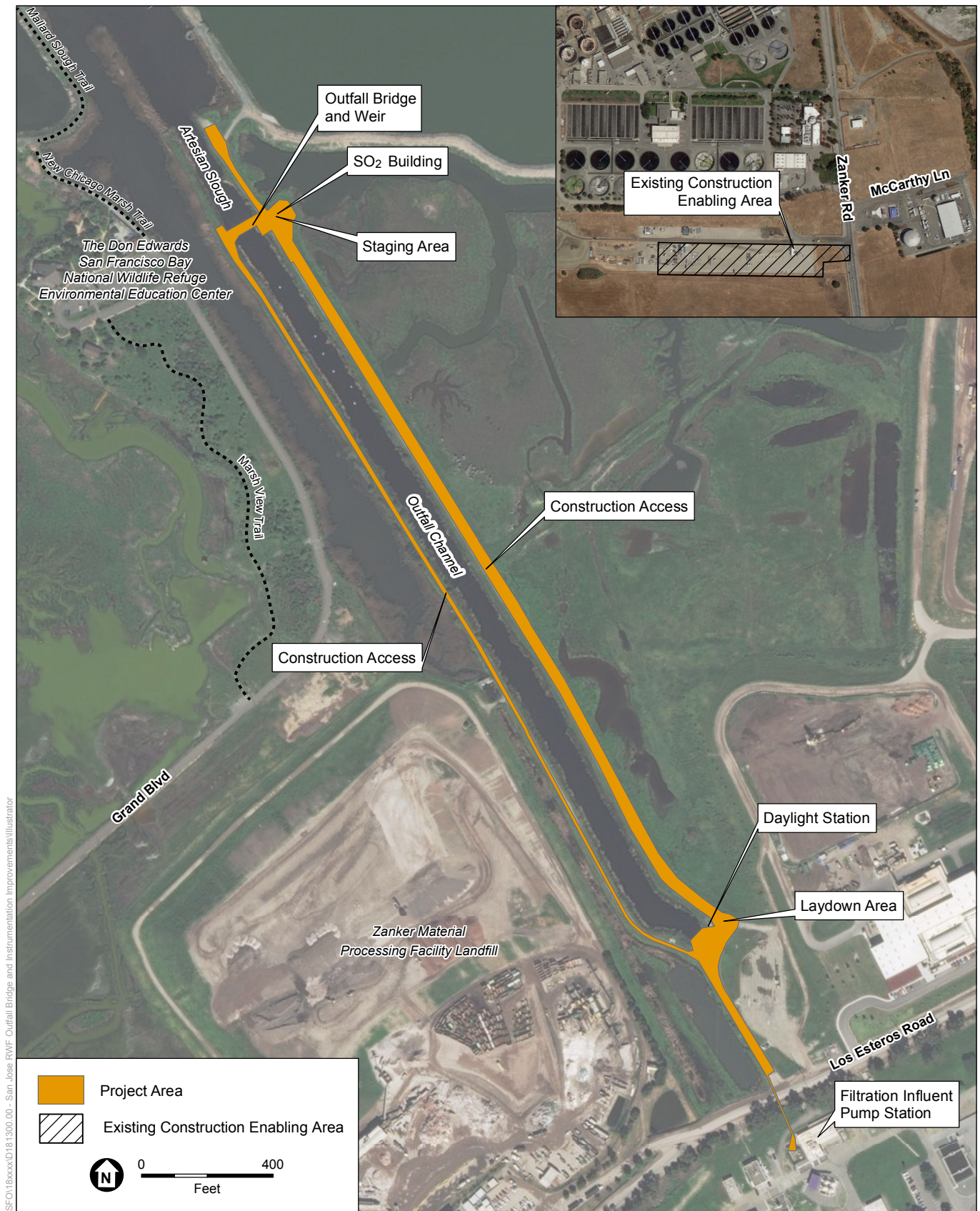
The existing outfall bridge is constructed of wood, a majority of which is pressure-treated boards, and serves as a structural element to facilitate crossing the outfall channel and a monitoring site for water quality compliance activities. The bridge is approximately 65 feet long and is supported on eight timber piers attached to the effluent channel weir. The bridge has two concrete wing wall abutments at the ends. The bridge and weir were built in 1969 and retrofitted in 1999-2000. The bridge serves as a support structure for instrumentation that monitors the quality of the water discharged through the channel. Operators are accessing the bridge day and night to inspect and/or service the water quality monitoring instruments, and to collect grab samples of the effluent. A light fixture at the middle of the bridge was recently removed due to the degrading integrity of the bridge, so lighting for the bridge is currently provided by a single light post mounted on the concrete eastside abutment. However, the single remaining light is insufficient for the intended purpose of providing a safe environment for Facility staff during nighttime operations. Water quality measurements for dissolved oxygen (DO) and pH are regularly recorded from this location.



SOURCE: ESA, 2019.

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-1
Project Location



SOURCE: ESA, 2019; ESRI, 2019; Google Maps, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-2
Project Overview

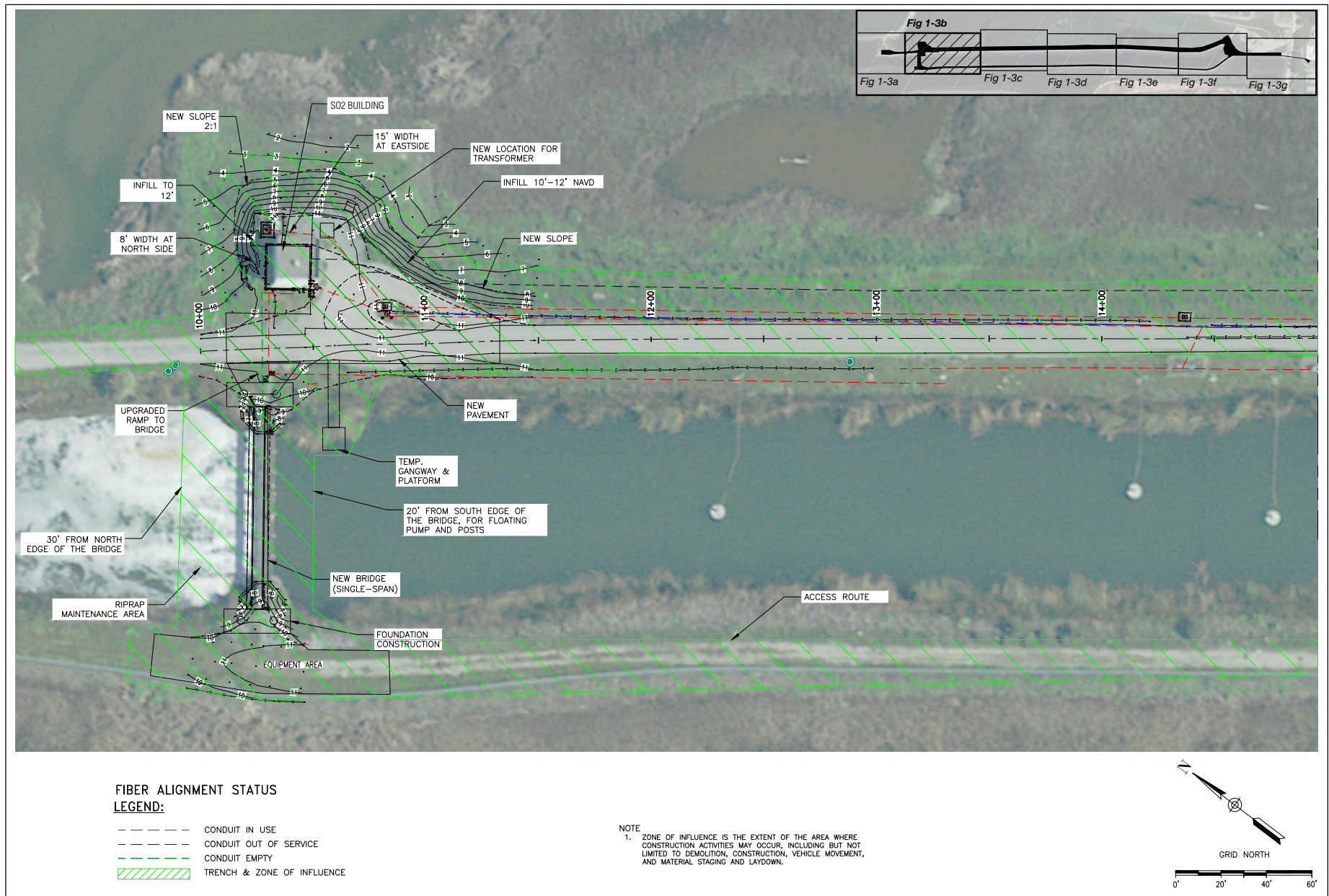


SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-3a
Site Plan

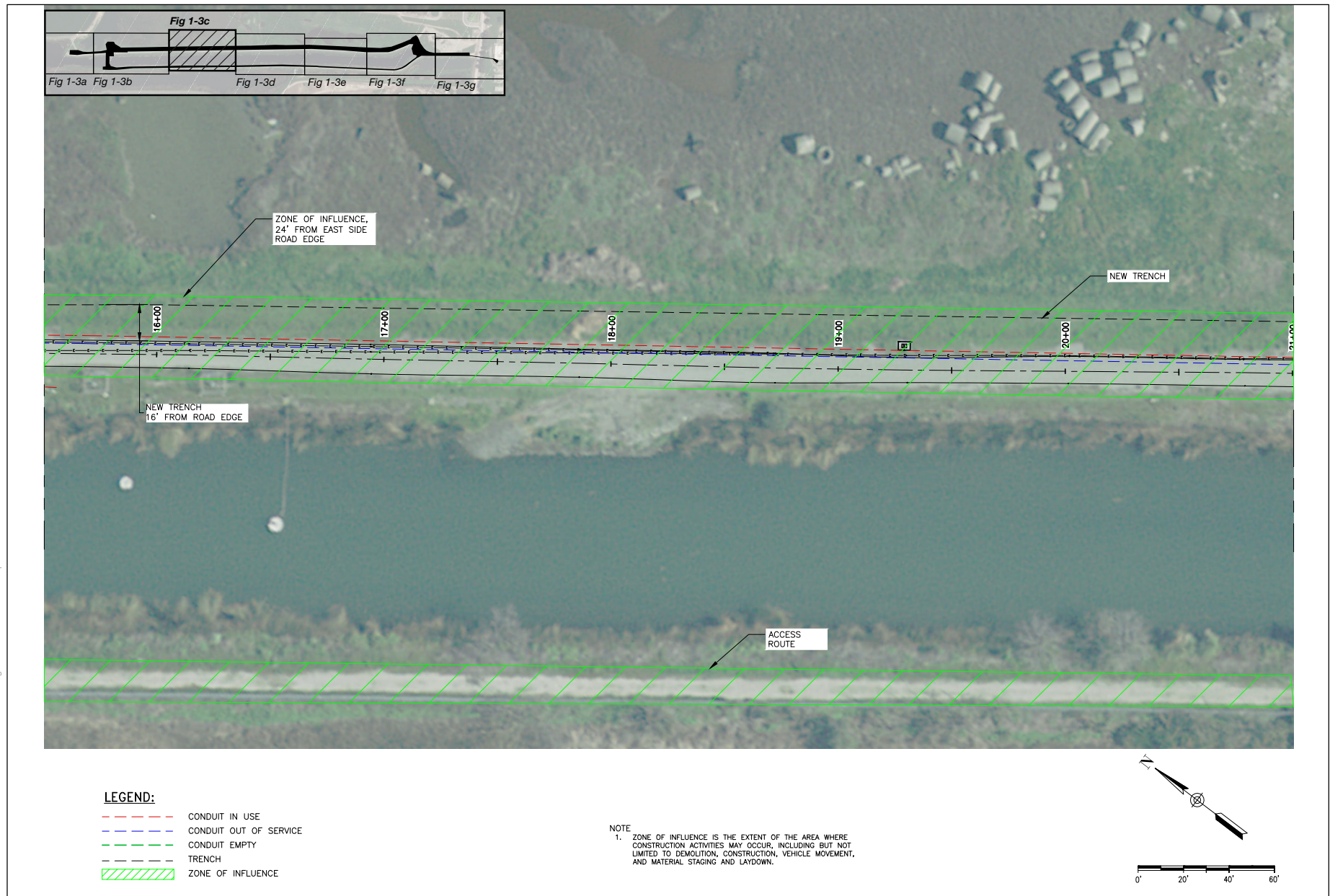
S:\O\18000\01\01\100.00 - San Jose RWF Outfall Bridge and Instrumentation Improvements\Illustrator



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

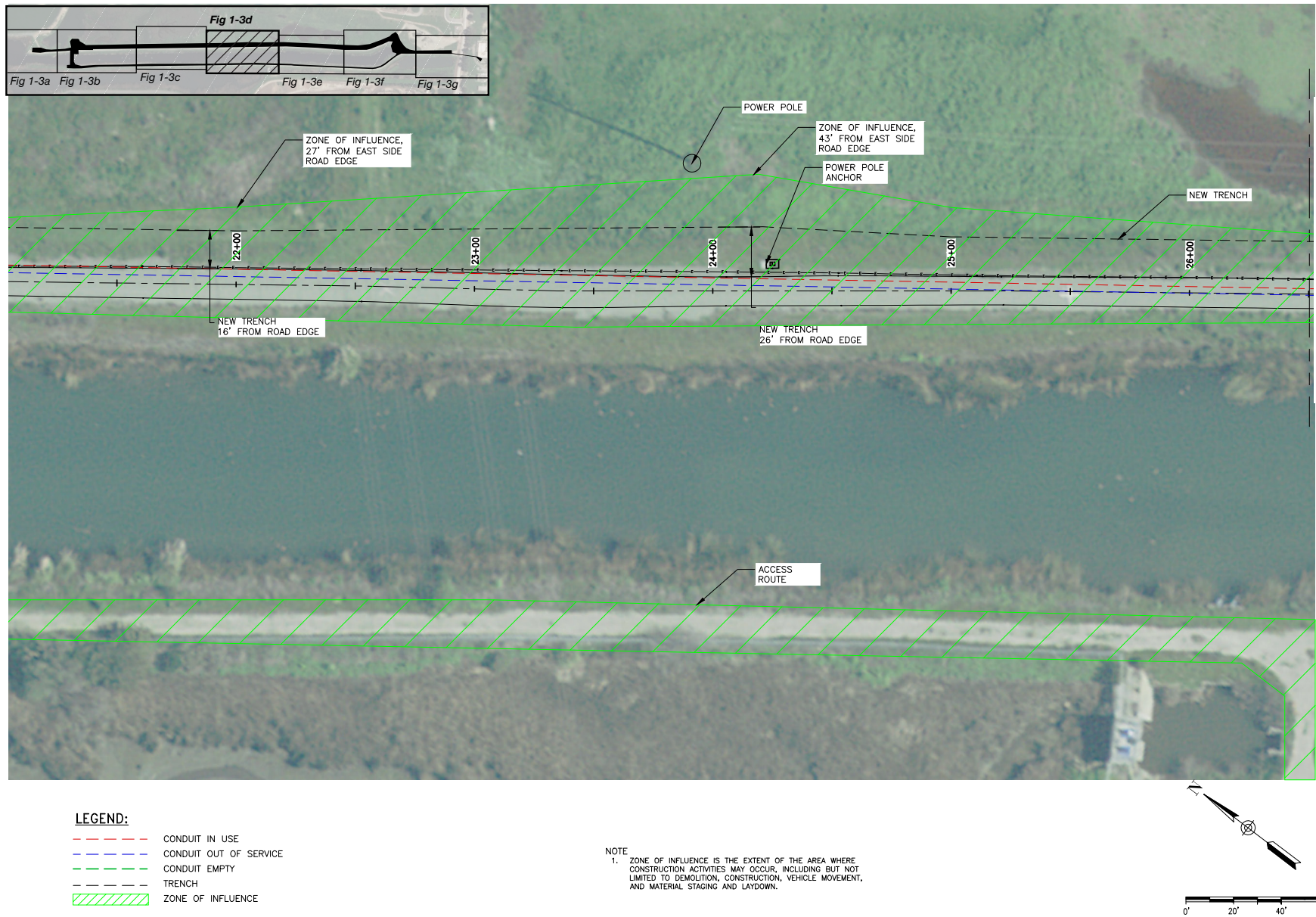
Figure 1-3b
Site Plan



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-3c
Site Plan



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

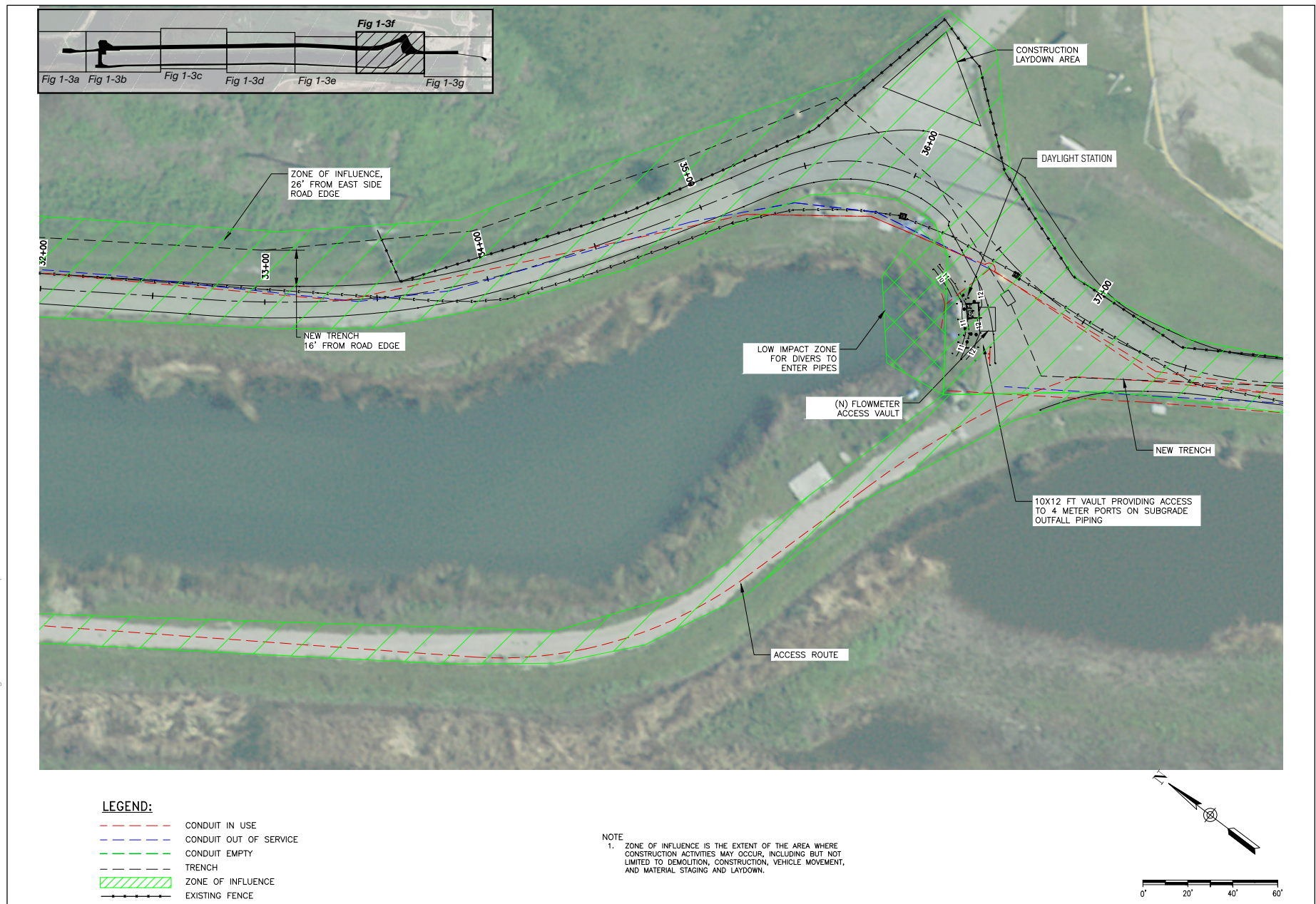
Figure 1-3d
Site Plan



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

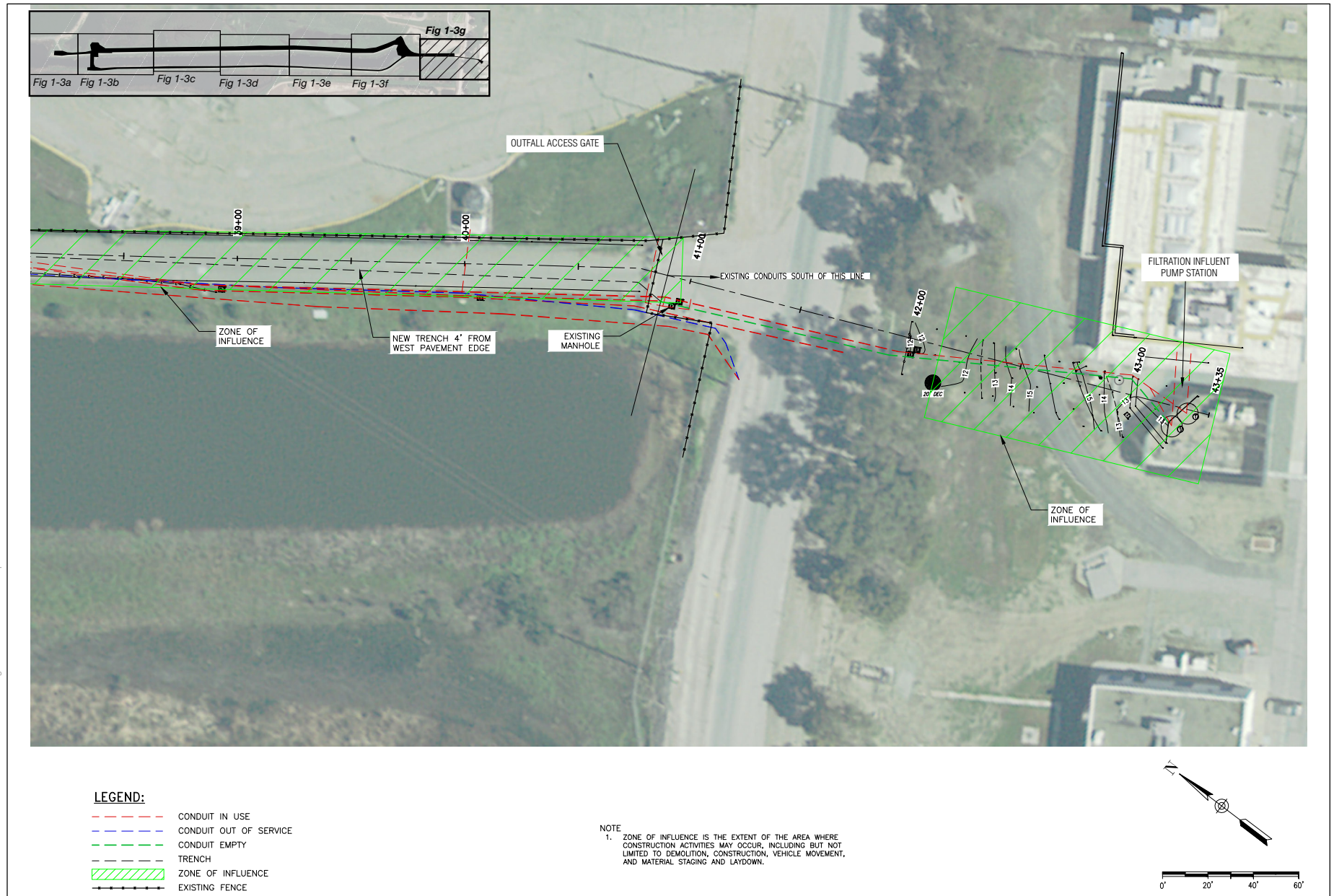
Figure 1-3e
Site Plan



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

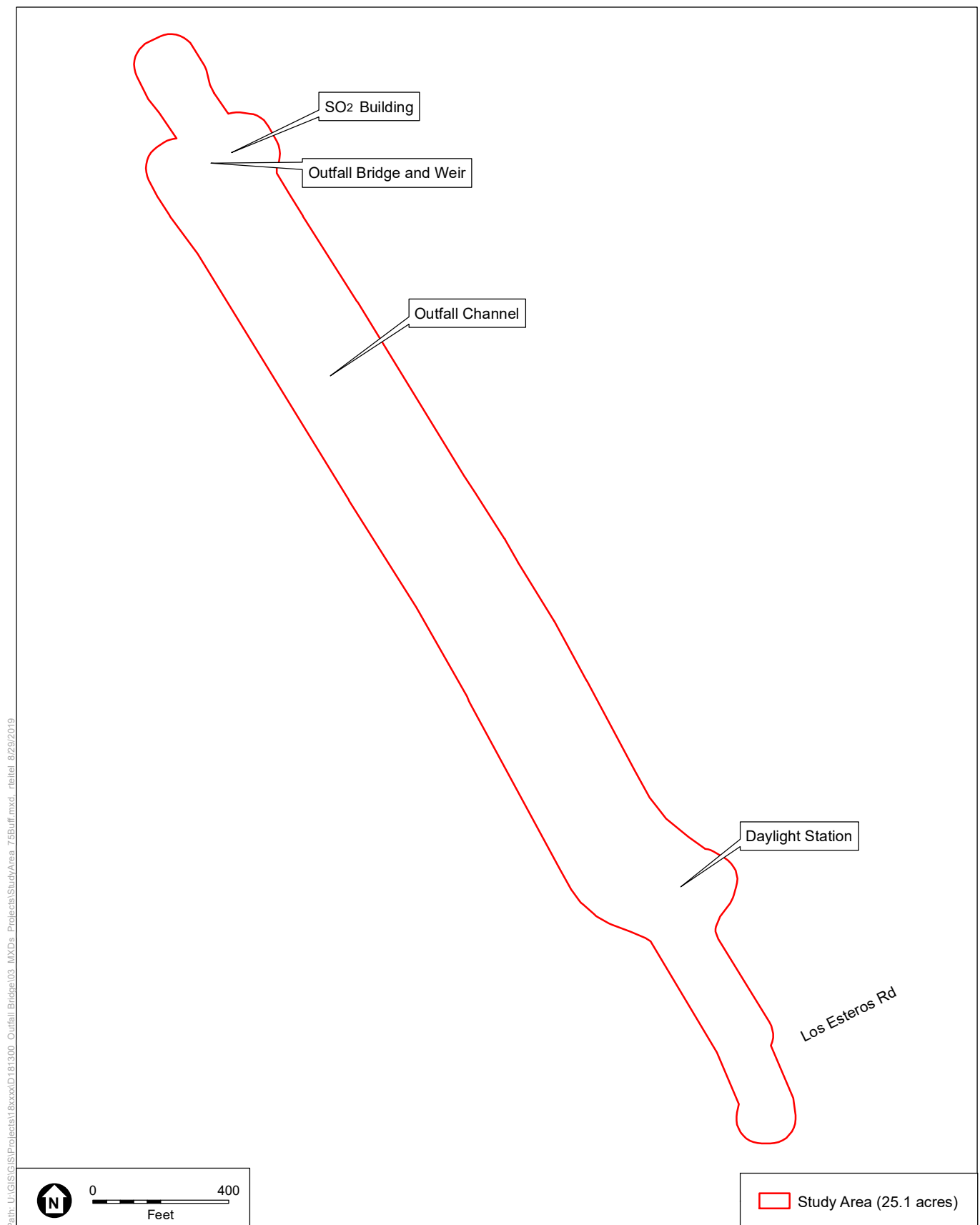
Figure 1-3f
Site Plan



SOURCE: AECOM, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-3g
Site Plan



SOURCE: ESA 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 1-4
Study Area

Weir and Abutments

A weir structure constructed of reinforced concrete on wood piles traverses the entire channel, with concrete abutment walls and wingwalls allowing for the transition from the bridge to the adjacent levees. The weir structure includes eight short concrete columns across the channel where timber posts are bolted, which forms the foundation for the timber bridge across the channel (see Photo 1). The weir has timber flashboards within slotted bays. Each bay has three 4-inch wide by 9-inch tall by 8.5-foot long boards stacked on top of each other. The weir height elevation is approximately 4.0 feet North American Vertical Datum of 1988 (NAVD88) (AECOM, 2018). The weir was placed in this location (approximately 0.50 miles downstream of the daylight station) to maintain a minimum water level in the channel sufficient to keep the outfall discharge pipelines fully submerged during low tide cycles, ensuring the existing flow meters operate properly (continuously). This minimum water level also ensures the aerators remain fully submerged and operational at all times. According to the Condition Assessment Report, the existing erosion protection rip-rap located on the downstream side (north side) of the weir has moved and settled from its original placement on the native bay mud, lending to degradation of channel bottom (bay mud) material downstream (north side) and under the weir structure, exposing a portion of the weir's pile foundation and compromising the overall protection of the structure. Undermining of the weir structure threatens the functionality of the weir and could compromise outfall channel minimum water surface if seepage or drainage beneath the structure at low tide occurs. In addition, deterioration of the weir's timber flashboards has allowed flows to leak through gaps, which impacts the ability to maintain a minimum water surface elevation. As described previously, the concrete weir is intended to maintain a minimum water level to facilitate discharge flow monitoring, and operation of the outfall aeration station. If the outfall channel minimum water surface is compromised, then the water quality monitoring equipment may not function properly as discussed in the next section. Components of the weir include the concrete structure of the weir and piles, abutment wingwalls, protective rip-rap, and flashboards.



Photo 1: Existing Outfall Bridge and Weir

Monitoring Instrumentation at Outfall Bridge

Attached to the bridge are the following instruments that continuously monitor regulated water quality in the outfall channel immediately upstream of the weir: a pH probe, a dissolved oxygen (DO) probe, a pH and DO signal controller, and a water sampling pump to provide continuous flow sampling for residual chlorine and bisulfite with analyzers located inside the SO₂ building. Underground pipes and conduits located between the bridge and building provide the path for connecting bridge instrumentation to inside the building. These instruments are connected to a distributed control unit, which transmits the collected data to the Facility's control room utilizing dated radio telemetry technology. The water quality monitoring equipment requires a minimum

water surface elevation in the outfall channel to function accurately. If the outfall channel minimum water surface level is not met, then the water quality monitoring instrumentation may not be able to monitor the effluent flow continuously as required by the NPDES Permit.

Daylight Station Outfall Flow Meters

At the south end or beginning of the outfall channel, two large outfall pipes terminate, and effluent is discharged to the outfall channel. Both pipes are equipped with ultrasonic flow measurement arrays with fiberglass mounting. The daylight station includes two panels. The panel to the west is for the official flowmeter measuring panel, and the panel to the east is for the trigger flow meter. The signals from the flow meter elements are transmitted to the two above-ground control panels. The ultrasonic flow meter sensors are coated with biological growth and are heavily corroded. These meters require mobilization of a diving crew and significant, temporary facility operations adjustments to greatly reduce the rate of discharge whenever periodic maintenance to the measurement arrays is required.

SO₂ Building

The SO₂ building is located adjacent to the outfall bridge and weir on the east side. This building houses a Motor Control Center, obsolete SO₂ injector pumps and analyzers, residual chlorine analyzers, supervisory control and data acquisition (SCADA) panels, monitoring instrumentation panels and a backup battery unit. The building is approximately 19-feet-long by 19-feet-wide. It is a reinforced concrete building and sits on eight wooden piles. The ground around and underneath the building has settled and eroded over time, and soil gaps between the building slab and ground, exposing the foundation have been observed. The floor of the SO₂ building is currently at Elevation 12.73 feet and the lowest electric instrumentation inside the building is above elevation 13.5 feet. The ongoing USACE Shoreline Project will provide 100-year flood protection to the project area (12 feet), and it is anticipated that it will also provide 500-year flood protection to the infrastructure for the immediate future. Hence, there is no need to raise any equipment in the SO₂ building once that project is completed.

Transformer

An existing pad-mounted transformer is located adjacent to the SO₂ building. The pre-cast concrete pad thickness is approximately 1 foot, and the footprint is approximately 6 feet by 8 feet. The ground surface beneath the concrete pad has experienced settlement or erosion since the original installation and the base on the transformer pad is tilting. The transformer is 25 years old with an estimated 3-5 years of life remaining. The transformer is currently at an elevation (approximately 10 feet plus six inches for the slab) that is located within the FEMA defined 100-year flood zone.

Existing Conduits

The data transmission between the weir area and the Facility is not secure or reliable (radio telemetry), which has prompted the City to propose the installation of a new fiber optic data line between the Filtration Influent Pumping Station (FIPS) building and the daylight station, and then to the SO₂ building. An existing empty conduit starts at the Facility near the FIPS building,

crosses beneath Los Esteros Road, and enters a pull box near the outfall area access gate. That conduit would be used for this project, unless it is found to be unusable. There is a possibility that during construction, the conduit would need to be repaired or new conduit could be laid between FIPS and the vault outside the building, potentially up to Los Esteros Road.

1.4 Proposed Project

The Project would construct a safe pedestrian crossing at the Facility's outfall channel by replacing the existing outfall bridge with a new bridge, re-establish the weir's scour protection, replacing the weir's leaking flashboard system, repair gaps caused by settlement beneath the SO₂ building, re-establish a level ground surface around the SO₂ building and vehicle turnaround area, replace aging facility instrumentation (e.g., water quality monitoring instrumentation, flow meters, and transformer) to ensure reliable water quality and quantity compliance monitoring, and improve communication between the Facility, daylight station, and SO₂ building. In addition to the infrastructure protection and improvement measures, the City proposes to install underground conduits for fiber optic cables to facilitate improved communications and data transfer between the SO₂ building, daylight station and the Facility's FIPS as well, as three additional electrical conduits for future project needs. The modifications to specific proposed project components (shown in Figure 1-3a-g) are described in more detail below.

1.4.1 Outfall Bridge Replacement and Weir Repairs

The Project proposes to replace the wooden outfall bridge in the existing location with a new pre-fabricated single span aluminum structure (88 feet in length and 5 feet in width) (see example in Photo 2). Site grading will be adjusted to allow for level access from the levee to the new bridge, which is proposed for placement at an elevation of 11 feet NAVD88. The grading of site soils on either side of the bridge would create a new ramp to the bridge. A temporary floating platform for compliance monitoring would be installed in the channel, with access from the east bank of the channel, just upstream of the weir/bridge to facilitate continuity of water quality and flow monitoring during bridge replacement. The existing wooden bridge would be demolished prior to placement of the new bridge.



Photo 2: Pre-Fabricated Aluminum Bridge

Major components of the outfall bridge proposed improvements include: new bridge foundations 11-12 feet behind the existing weir abutments (piers drilled to a maximum of 80 feet), a new prefabricated single-span aluminum bridge, adjusted grading to access the bridge, installation of compliance monitoring instruments (e.g., floating water sampling pump and rail system), and LED lighting on the new bridge (four pole mounted fixtures on the bridge). New lighting would consist of LED floodlights, which would be on all the time during night hours to provide safe operator access to the bridge. Lighting would be designed to minimize glare outside of the work area. The new bridge deck would be composed of aluminum members, which may reflect sunlight when new, but this effect would diminish over time as the metal develops an aluminum oxide skin. The proposed bridge is anticipated to be low maintenance and last for (a minimum of) 30 years.

Repairs to the outfall weir include new aluminum flashboards, and restoration of rock rip-rap erosion protection located on the downstream (north) side of the weir structure. The existing timber flashboards would be replaced by a new system, which would be mounted to the upstream (south) side of the weir structure. A series of brackets would be bolted to the existing concrete structure to provide support for installing the new aluminum flashboards. The new flashboards will reach up to an elevation of 4.5 feet NAVD88. New rock rip-rap materials would be installed on top of the existing materials to restore erosion protection for the weir's pile foundation and the channel bottom. Rip-rap materials would be placed from the downstream face of the weir and would slope down to the channel bottom to a location 20-feet downstream. Rip-rap materials would extend 75 feet across the entire channel width that is free of vegetation, east to west bank. In addition, grout material would be installed to fill the void under the weir structure. Smaller rock and gravel would be installed in-between the rip-rap to ensure gaps between the rip-rap are minimized.

1.4.2 Water Quality Monitoring Instrumentation Replacement at Outfall Bridge

Some of the existing water quality instruments currently located at the outfall bridge would be replaced with newer models. The Project proposes to replace the existing dissolved oxygen probe, pH probe and chlorine analyzers with newer models, to be placed in the SO₂ building. A new tidal gauge will be added as well. The existing sample pump would be replaced with a floating pump that brings water to all instruments in the SO₂ building.

1.4.3 Daylight Station Outfall Flow Meters Improvements

The Condition Assessment noted that the flow meters at the daylight station are in poor condition and require a diving crew to access the meter arrays for maintenance. This maintenance requires significant operational changes to facility processes to reduce effluent discharge flow rates to a safe level for a diver to enter the outfall pipes. To facilitate improvements to the outfall flow monitoring, a single access vault (approximately 10 feet by 11 feet) would be constructed above the outfall pipes with an adjacent above-ground control panel, new conduit, and a new pull box would be installed at the daylight station. The existing flow meters mounted within the two outfall pipes would be

replaced with four top-entry hot tap², insertion pulse Doppler-type flow meters with ultrasonic sensors. Each meter would penetrate through the vault floor and into the existing outfall pipe.

1.4.4 SO₂ Building and Transformer

The existing SO₂ building foundation requires repairs due to ground settlement. Settlement is evident from up to 1-foot high voids below the building slab, which exposes the wood pile foundation to the elements and subsidence of the transformer pad. The Project proposes to slurry-fill the voids beneath the building slab for foundation protection and raise the soil level surrounding the slab to six-inches below the top of slab for improved accessibility around the building.

An aging transformer on a tilting pad that powers the SO₂ building, currently located east of the SO₂ building, would also be replaced as part of the Project and relocated immediately south adjacent to the current transformer. The Project would include dismantling of the existing transformer and demolition of the existing concrete pads on site once a new pad is installed and the new transformer is proven to function properly. A new transformer will be installed at an elevation above 13.5 feet.

1.4.5 SO₂ Access Road Improvements

To address the existing damaged asphalt levee road adjacent to the building, and also address settlement conditions along the vehicle turnaround access road, the Project would replace the damaged asphalt to its original 11-foot width and restore the turnaround portion of the access road in the vicinity of the SO₂ building to a height matching the levee road and place infill along the levee curve to facilitate an improved turn curvature. The fill to expand the vehicle turnaround area would have a gravel surface. No net change to the impervious surface area is proposed as part of the Project. The existing electrical box in the turn circle, which provides power to the transformer would be replaced with a new traffic-rated vault that does not require protection with bollards that are currently used.

1.4.6 Fiber-optic Cable

The Project also proposes several upgraded elements that would improve facility convenience and communication. Approximately 3,500 feet of new fiber-optic cable would be installed between the FIPS building and the SO₂ building. Approximately 300 feet of new fiber-optic cable would be installed in an existing empty conduit from the FIPS building to the outfall area access gate. From this access gate, 3,200 feet of new conduit would be laid in a trench to the SO₂ building in the bench of the east levee, which would facilitate real-time, reliable data transmission. One spare conduit for communications will be installed, and three spare electrical conduits would be laid in the same trench to facilitate power supply to a future pump station, which may be constructed north or east of the SO₂ building. The fiber-optic cable work (between the outfall access gate and the SO₂ building) would include trenching, encasing electrical conduits in concrete, and installation of pull boxes to facilitate cable placement and maintenance.

² Hot tap is a process where a connection is being made to a pipeline while in service.

1.4.7 Continued Provision of Public Services

As noted above, the Facility provides wastewater treatment services to approximately 1.4 million residents and 17,000 businesses in a 300 square mile area of the South Bay. The outfall channel is managed by the Facility as a route for discharge of treated effluent in compliance with the RWQCB's Number R2-2005-0003. The Project is part of the City's Capital Improvement Project, which considers maintenance and replacement of the Facility's public services assets. Due to the location of this tidally influenced channel, and the key functionality for effluent water quality monitoring, the Project would need to be coordinated such that monitoring would continue during construction. Construction phasing would allow for continuance of water quality and flow monitoring by relocating monitoring instruments from the existing bridge to a temporary floating platform during bridge construction. The temporary floating platform would have a ramp that is anchored on land. The approximately 30-foot long ramp would extend down to the platform (approximately six feet by eight feet) that will be held in place by two vertical sliding guides (poles) that will be inserted in the channel bottom. Temporary lighting would be mounted on the platform that radiates downward. Following bridge installation and testing of new equipment, monitoring would be resumed at the Project's new outfall bridge and the floating platform would be removed at that time.

1.4.8 Wildlife Protection

The Project is located at the edge of a tidal wetland near the southern portion of San Francisco Bay. The Project's environmental analysis in Chapter 2 identifies whether there are sensitive shoreline habitats potentially occurring near the northern fringes of the Facility. Wildlife in the area would require protection from the Project's construction activities as discussed in relevant sections in Chapter 2.

1.5 Project Construction

The following section summarizes the construction process, identifies construction access roads, and conveys the anticipated construction schedule for the Project.

1.5.1 Construction Staging

The planned staging/laydown/stockpiling areas would be located in the existing levee access road, other compacted and unvegetated turnout areas, and at the Facility's existing Construction Enabling Area (Figure 1-2). Staging would occur at the turnaround area north of the SO₂ building, and at the adjacent vehicle turnaround. Laydown areas are available at the existing Construction Enabling Area and east of the daylight station. In addition, the existing levee roads on either side of the outfall channel would be used for construction access.

The study area, defined as the area surrounding the project components that may be indirectly affected by Project construction activities is approximately 25 acres (as shown in Figure 1-4). However, the actual area of direct effect, including temporary and permanent impacts, from Project construction is much smaller (3.87 acres) and limited to the area where the Project components would be built, including areas for staging and temporary placement of fill (e.g.,

anything the contractor is not immediately transporting off-site such as excavated soil or demolition materials) (see Figures 1-2 and 1-3a-g).

1.5.2 Schedule

Project construction is estimated to occur over a 6-month period. Construction would begin in June 2021 and be completed by the end of November 2021³ with the majority of the demolition and new construction occurring during the months of June through September and testing and site restoration occurring between July and November. Construction and demolition activities for different features would be overlapping throughout the construction window. Within the overall six-month time frame, design plans call for approximately 131 work days. Of those work days, there are 30 days of in-channel work expected (see Section 1.5.6, Dewatering and In-water Work for more detail). Construction activities would take place during daytime hours from 7:00 a.m. to 5:00 p.m., Monday through Friday (excluding holidays). Work is not expected to take place at night (with the exception of some early morning diver work) or on the weekends, though weekend work may be necessary, if permitted, to finish construction prior to winter rain and night work that may be necessary due to tidal limitations. Should any night work be required, temporary construction lighting would include lights that are designed with low light spillover utilizing shields or other light pollution reduction features.

1.5.3 Construction Workforce

Project construction would be expected to require a maximum crew of 25 workers on any given day, and the average number of workers per site would be approximately 10. Construction workers would park vehicles north of the SO₂ building and east of the daylight station, which would overlap with the staging areas. Additional parking, staging, laydown space and contractor trailer parking is available at the existing Construction Enabling Area, along the southeast portion of the Facility.

1.5.4 Construction Methods and Sequence

A number of items required for construction of the Project would occur simultaneously; some proposed Project activities would require specific sequencing or prioritization of activities as shown in **Table 1-1** below.

³ Any grading occurring between October 15 and April 15 would require an approved erosion control plan per City Policy EC-4.5 (City of San José, 2011).

TABLE 1-1
SUMMARY OF CONSTRUCTION ACTIVITY PRIORITIZATION

Proposed Activity	Point of Coordination
Install temporary instrument platform	<ul style="list-style-type: none"> • Reroute instrument cables and power to the platform • Keep instruments active
Install new bridge foundation	<ul style="list-style-type: none"> • Locate existing outfall pipe in west levee prior to finalizing design • Minimize time without bridge
Demolish bridge	<ul style="list-style-type: none"> • Keep instruments active • Mount existing instruments on temporary platform
Install new bridge	<ul style="list-style-type: none"> • Install prefabricated new bridge • Install new compliance monitoring instrumentation • Install new lighting • Install temporary floating water sampling pump and rail system
Install underground conduits	<ul style="list-style-type: none"> • Install conduits prior to performing grading work • Install conduits prior to asphalt replacement
Install new transformer	<ul style="list-style-type: none"> • Install prior to decommissioning and removing existing transformer • Coordinate time of power connection to existing Motorized Control Center • Install fencing after placement of transformer
Site improvements around SO ² building	<ul style="list-style-type: none"> • Remove existing transformer prior to finishing site grading
Install flow meter vault	<ul style="list-style-type: none"> • Excavate vault pit and construct vault by cast in place method • Install new flow meters and their control panels • Provide power to new meters and panels from existing panels • Install prior to removing existing meters and control panels • Test and commission new meters prior to removing existing meters
Install new flow meters in new vault	<ul style="list-style-type: none"> • Test and commission new meters prior to removing existing meters • Reduce plant effluent flow rate during meter removal
Restore rip-rap in channel	<ul style="list-style-type: none"> • Install prior to placing new bridge • Install prior to replacing weir boards
Replace weir boards	<ul style="list-style-type: none"> • Install after rip-rap placement • Install during high tides

Allowing for the constraints described in Table 1-1 above, construction would occur in three general phases, including: site preparation/demolition, new construction, and testing and site restoration. Prior to the start of construction, staging and laydown areas would be established and construction best management practices (BMPs) would be implemented at the site. The construction activity and types of equipment that may be required for construction are presented by Project component in **Table 1-2**.

- **Mobilization:** The construction contractor would mobilize to the Project site and establish the staging and laydown areas (shown on Figure 1-2). The Project site would be accessed from the levee road through the gated entry from Los Esteros Road. A mobile office would be set up in the existing Construction Enabling Area, which includes connections for water and electricity, and fencing would be established around the Construction laydown area (Figure 1-3f). Construction equipment would be transported to the site, and necessary materials would be delivered to the staging and laydown areas. Standard haul trucks would be used for these deliveries.

- **Installation of Construction BMPs:** The contractor would establish erosion protection measures to minimize erosion into the adjacent areas. These measures would generally consist of silt fences, straw wattles, and gravel bags. These BMPs would help reduce siltation and other environmental impacts.
- **Site Preparation:** The construction contractor would clear and grub the site to remove vegetation and provide clean and accessible areas in which to place the project components. Vegetation would be removed around the SO₂ building, along the vehicle turnaround portion of the access road, at the approaches to the bridge, and where trenching would occur. Throughout construction, equipment would be operated from dry areas (on land) only. Grading would occur within the area of disturbance shown in Figure 1-3a-g.
- **Demolition:** Structures identified for demolition include the existing outfall bridge, weir flash boards, transformer, pavement, pullboxes, controls cabinets, and pad, panels, asphalt during trenching at daylight station, current flow meters and three concrete slabs near the existing transformer. Demolition activities would require removal by hand or by mechanized equipment. Bridge demolition would involve dismantling the woodwork and disconnecting the bolted beams from the base of the weir. The existing concrete footings and abutments (for the outfall bridge) would remain in place. At the SO₂ building, the transformer would be removed with a lift on a truck; transformer slab would be removed. Concrete debris would be demolished, and the existing chain link fence and transformer would be dismantled and removed from the site. Reusable components would be recycled; unusable debris would be taken to the permitted landfill, Zanker Road Landfill located adjacent to the Facility, or another nearby landfill to be determined by the contractor. Some features would be abandoned in place such as the outfall flow meter manholes. Divers would remove the existing meter arrays from the outfall pipes and these manholes would be left in place; one would be used as a dewatering point for groundwater removal from the new vault.
- **New Construction-Outfall Bridge:** Existing electrical panels, water level gauge, and dissolved oxygen monitoring equipment would be removed during construction and relocated to a temporary floating platform, secured with anchor poles, to be placed approximately 30 feet upstream of the outfall weir and accessed via a temporary access ramp (or gangway). A drill rig will be used to construct the pile foundation. Two cast in drilled hole (CIDH) reinforced concrete piers will be placed on each side of the channel to support the single span bridge.

The maximum boring depth for the concrete piles would be 80 feet deep. Construction of the new bridge would include new bridge foundations (including installation of four drilled reinforced concrete piers), installation of a prefabricated aluminum bridge, grading of site soils on either side of the bridge to create a new ramp to the bridge, installation of compliance monitoring instruments and LED lighting on the new bridge. Following construction and testing, the temporary floating platform and ramp would be removed from the site, and monitoring equipment would be replaced and moved into the SO₂ building. The floating water sampling pump would be installed in the channel next to the bridge and powered from the bridge, and the tidal gauge would be installed on the wing wall on the upstream east side of the bridge at the conclusion of bridge installation. The existing SO₂ intake valve would remain in service during construction.

TABLE 1-2
SUMMARY OF CONSTRUCTION ASSUMPTIONS FOR THE PROJECT

Project Site/ Component	Existing Structures/ Features to Be Demolished	New Structures/Features to Be Constructed	Estimated Construction Equipment	Equipment Quantity and Duration ^a
Outfall Bridge				
	<ul style="list-style-type: none">Existing bridge	<ul style="list-style-type: none">New bridge foundationsTemporary platform for bridge instruments during constructionHi-Tide floating dockPile foundation (concrete piers)Pre-fabricated aluminum bridgeEarthen ramps on either side of bridgeRamp to the bridgeFloating water sampling pump and rail systemLED Lighting and instrumentationElectrical duct bankLevel transmitter	Backhoe	1 @ 60 days
			Hand tools	10 @ 60 days
			Lift on a truck	1 @ 5 days
			Crane	2 @ 5 days
			Flat-bed truck	1 @ 2 days
			Electrical testing equipment (multi-meters)	5 @ 30 days
			Compactor	1 @ 10 days
			Dump truck	1 @ 15
Outfall Weir				
	<ul style="list-style-type: none">Existing weir flashboards	<ul style="list-style-type: none">Rock and gravel for weir rip-rap placement and underwater groutAluminum flashboards	Bucket crane	1 @ 10 days
			Tremie pump	1 @ 4 days
			Drill Rig	1 @ 14 days
			Crane	1 @ 30 days
			Welding Carts	3 @ 10 days
SO ₂ Building and Transformer				
	<ul style="list-style-type: none">Transformer, concrete slab and chain link fenceConcrete debrisElectrical pit	<ul style="list-style-type: none">TransformerTransformer padChain link fenceAC pavementElectrical duct bankPanelWater monitoring equipment and instrumentationFoundation modifications to existing buildingEarthwork around SO₂ building to raise elevation to 12 feet NAVD88	Bucket crane	1 @ 2 days
			Diesel generator	1 @ 4 days
			Tremie pump	1 @ 2 days
			Mini-digger	1 @ 20 days
			Circular saw	1 @ 5 days
			Jig Saw	1 @ 5 days
			Nail gun	1 @ 5 days
			Concrete truck	1 @ 4 days
			Flat-bed truck	1 @ 1 days
			Lift on a truck	1 @ 1 days
			Backhoe	1 @ 5 days
			Compactor	1 @ 5 days
			Dump Truck	1 @ 5 days

TABLE 1-2 (CONTINUED)
SUMMARY OF CONSTRUCTION ASSUMPTIONS FOR THE PROJECT

Project Site/ Component	Existing Structures/ Features to Be Demolished	New Structures/Features to Be Constructed	Estimated Construction Equipment	Equipment Quantity and Duration ^a
SO₂ Access Road Improvements				
	Existing pavement (800 SF)	<ul style="list-style-type: none"> Restored asphalt pavement (1,050 SF) Turn-around area adjacent to SO₂ building would be expanded, elevated, compacted and covered in gravel aggregate base (2,300 SF) 	Saw cutter	1 @ 2 days
			Gas powered generator	1 @ 2 days
			Backhoe	1 @ 20 days
			Compactor	1 @ 20 days
			Dump truck	1 @ 20 days
			Hot asphalt delivery truck	1 @ 1 day
			Asphalt roller compactor	1 @ 1 day
Fiber-optic Cable				
	n/a	<ul style="list-style-type: none"> Conduit trench for new conduits between SO₂ building and outfall area access gate Pullboxes for electrical to be installed every 1,000 feet and communication to be installed every 500 feet Pavement restoration (1,650 SF) to patch trench areas from daylight station to outfall area access gate 	Mini-digger	1 @ Approximately 30 workdays (assuming a rate of 100 feet per day)
			Circular saw	1 @ 30 days
			Jig saw	2 @ 30 days
			Nail gun	2 @ 30 days
			Concrete truck	1 @ 15 days
			Dump truck	1 @ 5 days
			Backhoe	1 @ 5 days
			Hot asphalt delivery truck	1 @ 1 days
			Asphalt roller compactor	1 @ 1 days
			Compactor	1 @ 5 days
Daylight Station Improvements				
	<ul style="list-style-type: none"> Controls cabinet and slab Pullboxes 	<ul style="list-style-type: none"> Concrete cast in place slab foundation] Control panel cabinets Pullbox 11x12x8 feet, vault and four access ports to concrete outfall pipes Bollards (5) 	Excavator for vault construction	1 @ 30 days
			Circular saw	1 @ 10 days
			Jig saw	1 @ 10 days
			Nail gun	1 @ 10 days
			Concrete truck	1 @ 5 days
			Tremie pump	1 @ 5 days
			Soil slurry equipment	1 @ 5 days
			Dewatering pump	1 @ 60 days
			Filtration tank	1 @ 60 days
			Mobile tank for water disposal at headworks	1 @ 60 days

NOTES:

n/a = not applicable or available

SF = square feet

^a Duration represents days the equipment will be present on the site but use will be intermittent and not 8 hours per day.

- **New Construction-Outfall Weir:** To protect the outfall weir from erosion, the protective rip-rap layer would be restored to its original level. The work would include placement of underwater grout to fill a void under the weir structure followed by placement of rip-rap packed with gravel located downstream of the weir. A bucket crane would be used to place (approximately 2-foot diameter) rip-rap and a tremie pump would be used for underwater grouting of the void under the weir. Replacement of the weir's wooden flashboards with aluminum boards would occur manually by divers during the peak of high tide.
- **SO₂ Building and Transformer:** The SO₂ building would require minor foundation modifications to fill voids with controlled low strength material (CLSM) and correct existing conditions resulting from soil settlement and erosion. Supplemental earthwork around the SO₂ building would raise the surrounding ground surface elevation to 12 feet NAVD88 to improve operator access and to protect the foundation from rodent access. The SO₂ building is in good condition and would not require other structural modifications. Internal construction would include installation of water monitoring equipment and instrumentation, and communications equipment for the fiber optic connection. The existing transformer would be dismantled along with the concrete slab supporting this structure. A new transformer would be installed on a new pad (with dimensions similar to existing). The new pad would be relocated as shown on Figure 1-3a-g, Site Plan. The proposed transformer site would be enclosed in a chain link perimeter fence. A diesel generator would be needed for approximately four days at the SO₂ building during replacement of the existing electrical vault in the turn circle.
- **SO₂ Access Road Improvements:** The turn-around area adjacent to the SO₂ building would be expanded, elevated, compacted, and covered in gravel aggregate base (minimum of 6") to provide long term support for vehicle traffic. The levee access road would be restored to its original width. Existing asphalt would be removed and disposed of offsite, and new asphalt paving would be constructed consistent with Caltrans and City of San Jose design standards.
- **Fiber-Optic Cable:** Approximately 3,500 feet of new 24-strand fiber-optic data cable would be installed to facilitate communication and data transmission between SO₂ building and the FIPS building at the Facility. The fiber optic cable would be placed in 300 feet of repurposed conduit from the FIPS to inside the gate of the outfall area, and cable installation would continue with 3,200 feet of trench excavation from the outfall gate to the daylight station and from the daylight station to the SO₂ building. Construction crews would trench and backfill with onsite soils to place fiber optic cable in approximately 600 linear feet of new conduit from the outfall area access gate to the daylight station area in the existing paved driveway. Traffic-rated pull boxes would be installed at a minimum interval of 500 feet for signal conduits and 1,000 feet for the spare electrical conduits. The conduits would be encased in a concrete slurry before soils are backfilled, and underground cable markers would be installed at regular intervals. The remainder of the trench (approximately 2,600 feet in length, 26-inches deep, and 3-feet wide) would be constructed between the SO₂ building and the daylight station in the bench of the east levee, at varying distances east of the toe of the levee (see Figure 1-3a-g). The maximum area of ground disturbance associated with this trenching would be approximately 11,000 square feet. Consequently, trenches would re-use approximately 50 percent of backfill following excavation, with the rest going to a landfill.
- **Daylight Station Improvements:** Construction would include a new vault around four new insertion ports into the below-grade concrete outfall pipes, construction of new above-ground control panels, a concrete slab for the panels, new panels, pull boxes, and asphalt repairs.
- **Backfill:** Backfill of the trenches would be a continual effort trailing a few days behind excavation and concrete encasing. The volumes of excavation and fill planned for the proposed Project are presented in **Table 1-3**.
- **Site Restoration and Demobilization:** Following the work described above, construction haul trucks (10 cubic yard capacity) would be used to remove equipment and any surplus materials from the site. The floating platform would be removed and the turn circle expanded. No revegetation of levee side

slopes is proposed. Trash or debris would be removed and the surface of the levee would be restored to pre-Project conditions. This is expected to take up to five days.

1.5.5 Site Access Affected Roadways and Truck Trips

Construction equipment and workers would access the site from Los Esteros Road generally exiting from State Route (SR) 237 from the Zanker Road off-ramp. Access to the daylight station construction area is through a gated, City-owned driveway from Los Esteros Road. North of the daylight station, the levee roads on both east and west of the outfall channel provide access to the construction area (see Figures 1-2 and 1-3a-g).

A maximum of 25 vehicle trips per day would be required for worker trips and up to 15 truck trips per day for materials deliveries, and off-haul of construction waste.

Roads within the Project site are paved and would require minimal water for compaction or dust control, which would be provided from the Facility's recycled water system supply adjacent to the site.

Approximately three to four water truck trips per day (capacity 2,000 gallons) are expected for dust suppression and trench compaction.

1.5.6 Dewatering and In-Water Work

Local dewatering may be necessary for the construction of the vault (pit dewatering with soil grouting to reduce water influx). Water removed from the construction pit will be filtered and subsequently trucked to the Facility's headworks for treatment if necessary. Any removed solids will be disposed of at a landfill permitted to receive the respective debris. Diversion of treated effluent to other portions of the Facility would occur for a few hours per occasion during removal of the existing flow meters from the outfall pipes. No channels or waterways would need to be dewatered.

The portions of the project that will be placed below the mapped high-tide line (HTL) would be in-water work. The delineation of jurisdictional wetlands conducted for the Project mapped the HTL at 7.40 feet elevation NAVD88. Therefore, only the areas and volumes of fill below that elevation are considered impacts to waters of the U.S. or of the State of California. Approximately 4,725 cubic feet of rip-rap packed with gravel would be placed from the downstream face of the weir and would slope downward from the top of the weir base up to the channel bottom, about 20-feet downstream from the weir base. Rip-rap materials would extend 75 feet across the entire channel width, which is free of vegetation, east to west bank. Gravel (approximately one to four-inches in size) would be installed to fill the voids located between the larger rip-rap rock material for structural stability. Eroded soil under the weir structure would be backfilled with underwater grout. The amount of underwater grout needed for the weir's stability is difficult to estimate due to current environmental conditions, such as existing rip-rap preventing the use of surveying equipment (e.g., sonar or probing rods). Based on observations made by divers in 2018, the void space under the weir is currently estimated to be less than 20 cubic yards in size. Two guide poles (approximately 30 cubic feet) would be inserted approximately 10 feet into the channel bottom to stabilize the temporary floating platform during construction.

Other in-water work that is not fill includes removal of bridge columns, 21 flash boards, floating sampling pump and probes, as well as installation of two poles into the channel bottom for the temporary platform. A ramp would be laid on top of the vegetation out to the temporary platform floating in the

water. Change-out of the flashboards would occur at the top of the high tide and installation of rip-rap would occur during incoming tide.

1.5.7 Areas and Volumes of Fill and Excavation

This section presents the total areas and volumes of fill and excavation of material for the entire project (Table 1-3). The top portion of Table 1-3 presents quantities of fill and excavation placed at or below HTL. As described above, this is work that results in impacts to waters of the U.S. or of the State of California and would require permits from the U.S. Army Corps of Engineers. The lower portion of the table presents quantities of excavation and fill that is not occurring within jurisdictional wetlands and waters throughout the rest of the project site. This includes work at the bridge site that is not considered in-water: bridge foundation pier soil removal and installation of four drilled reinforced concrete piers with steel casings that could extend down 80 feet. These piers would be placed, two on each side, 11-12 feet behind the existing wing walls of the bridge in the levee. A pile cap would be placed on top. Soil would be removed and then backfilled when these concrete piers are installed. The table also includes the volumes of excavation and fill for the trenching described in Section 1.5.4 as well as the SO₂ building and turnaround area and the flowmeter vault at the daylight station.

TABLE 1-3
SUMMARY OF AREAS AND EXCAVATION VOLUME OF FILL

Site Component	Excavation Volume (cubic feet)	Fill Volume (cubic feet)	Area (square feet)
Quantities Placed at or Below High Tide Line			
Rip-rap, gravel and underwater grout ^a	n/a	4,725	1,670
Guide poles for temporary floating platform	n/a	30	1.6
Total	n/a	4,755	1,671.6
Quantities Placed above High Tide Line			
Bridge Foundation Pier Soil Removal and ramp elevation	1,000	100 soil 900 concrete	450
Trenching for Fiber-Optic Cable	24,000 ^b	12,000 soil 12,000 low-strength controlled fill	11,000
SO ₂ building and turnaround area	2,000	9,500 soil 2,080 aggregate base	5,300
Flowmeter Vault at daylight station	10,260	4,050 soil 950 concrete	800
Total^c	37,260	25,650 soil 15,930 other material	17,550

NOTES:

^a The volume of rip-rap includes spaces between rock, which would be filled with gravel. The amount of underwater grout needed for the weir's stability is difficult to estimate due to current environmental conditions, such as existing rip-rap preventing the use of surveying equipment (e.g. sonar or probing rods). Based on observations made by divers in 2018, the void space under the weir is currently estimated to be less than 20 cubic yards in size.

^b Trench dimensions: 2.5 feet deep, 3 feet wide, 3,200 feet length

^c Sum of individual rows may not equal the presented total due to rounding.

The analysis presented in several sections of the rest of this document draws upon these estimates and includes them in assessing potential impacts on the local hydrology, water quality, biological resources, or other conditions as appropriate.

1.6 Operations

Once construction is completed, the Project would result in moderately reduced on-site maintenance (compared to existing maintenance requirements), as the new single-span aluminum bridge is anticipated to be maintenance-free, and the installation of a fiber optic connection will reduce trips required to activate the aeration system. In other respects, the City would continue to maintain the site as under existing conditions, which is currently about five trips per day by operations and maintenance staff to read and maintain the instruments in addition to periodic mowing of the levees. Effluent quality instruments housed within the buildings require regular calibration. Vegetation at the perimeter of the SO₂ building, daylight station, and access road would be mowed for fire safety at an interval consistent with the existing maintenance schedule. Flow meters in vaults require periodic pulling to clean detectors. Overall, it is anticipated that the Project would present no change or moderately reduced operations and maintenance activity on site, however the Project would result in improved reliability in effluent monitoring. The water level in the channel would increase due to the raised height of the weir boards compared to the existing board placement, although the capacity of the outfall channel would not change. The increased water height would allow for better operation of the outfall meters, eliminating issues with air pockets within the pipes. The City would continue to operate the Facility, as required by RWQCB Order Number R2-2014-0034 and the City would work with RWQCB to maintain compliance.

1.7 Required Permits and Regulatory Approvals

The Project is expected to require the following regulatory permits and other regulatory approvals.

- Potential verification of Delineation of Jurisdictional Wetlands Report from U.S. Army Corps of Engineers (USACE)
- U.S. Army Corps of Engineers approval of Section 404 permit, should impacts to wetlands be unavoidable
- Regional Water Quality Control Board approval of 401 Water Quality Certification and/or Waste Discharge Requirements application, should impacts to wetlands be unavoidable and a Section 404 permit be required
- State Water Resources Control Board: issuance of coverage under the National Pollution Discharge Elimination System, Construction General Permit for stormwater discharges associated with construction activities that disturb more than one acre of land
- Minor Permit from San Francisco Bay Conservation and Development Commission (Amendment to Previous Permit)
- Section 7 Consultation with U.S. Fish and Wildlife Service (USFWS) (Biological Opinion or Letter of Concurrence)
- Informal Section 7 Consultation with National Marine Fisheries Service (i.e., no Biological Opinion is expected)

- Section 1600 Lake and Streambed Alteration Agreement from California Department of Fish and Wildlife (CDFW)
- Section 106 Consultation with the State Historic Preservation Office for effects to potential historic resources, if applicable
- Potential easement required from PG&E's right of way near a power pole

The City expects to use nationwide permit applications to comply with Section 404 of the federal Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. The City will submit permit applications to cover the above-listed regulatory permits and approvals needed for the Project after discussing the Project with staff from the regulatory agencies.

1.8 References

AECOM, 2019. Capital Improvements Program Conceptual Design Memorandum Outfall Bridge and Levee Improvement Service Order No. 1 prepared for the San Jose- Santa Clara Regional Wastewater Facility. March 6.

AECOM, 2018. CIP Program Final Condition Assessment Report Outfall Bridge and Levee Improvement, Service Order Task 2, prepared for the San Jose- Santa Clara Regional Wastewater Facility. June, 25.

City of San José, 2011. *Envision San José 2040 General Plan*. November 2011.

City of San Jose, 2013. San José-Santa Clara Water Pollution Control Plant Master Plan, Environmental Impact Report, November, 2013.

City of San Jose, 2019. Website Regional Wastewater Facility Treatment Process. Available online: <http://www.sanjoseca.gov/index.aspx?NID=1672>. Accessed July 17, 2019.

San Jose-Santa Clara Regional Wastewater Facility, 2018. 2018 RWF Annual Self-Monitoring Report, prepared by RWF Wastewater Compliance staff. P. 4, Daily Average Flow 2003-2018. Available online: <http://www.sanjoseca.gov/ArchiveCenter/ViewFile/Item/3507> Accessed August 6, 2019.

USACE et al., 2015. Final Integrated Interim Feasibility Study and Environmental Impact Statement/Environmental Impact Report for the South San Francisco Bay Shoreline Phase I Study. Jointly prepared by the USACE – San Francisco District, the U.S. Fish and Wildlife Service, Santa Clara Valley Water District, California State Coastal Conservancy P. 3-25. September 2015. Available online: <https://www.valleywater.org/project-updates/creek-river-projects/san-francisco-bay-shoreline-protection>.

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CHAPTER 2

Environmental Checklist

- 1. Project Title:** Outfall Bridge and Instrumentation Improvements Project
- 2. Lead Agency Name and Address:** City of San José Department of Planning, Building and Code Enforcement, Planning Division 200 East Santa Clara Street, 3rd Floor Tower; San José CA 95113-1905
- 3. Contact Person and Phone Number:** Kara Hawkins, Environmental Project Manager
(408) 535-7852
- 4. Project Location:** Outfall bridge and channel, north of 700 Los Esteros Road
San José, Santa Clara County, California
- 5. Project Sponsor's Name and Address:** City of San José Environmental Services Department;
200 E. Santa Clara St., Tower FL 10
San José, CA 95113
- 6. General Plan Designation(s):** Open Space, Parklands, Habitat and Public/Quasi Public land
- 7. Zoning:** Heavy Industrial; Light Industrial; Agricultural

8. Description of Project:

The purpose of the Project is to provide the City with a safe footbridge across the Facility's discharge outfall channel, reliable instrumentation and remote monitoring of the Facility's effluent water quality, and improved access to the control instruments. The Project would replace the existing bridge to cross the Facility's outfall channel; restore a functional weir that is protected from conditions of erosion and scour; improve reliable ongoing compliance monitoring at the current locations at the outfall channel and adjacent structures (i.e., daylight station, SO₂ building, etc.); install safe access and foundation protection for the existing SO₂ building; replace the existing transformer; install underground conduits for a fiber optic cable and additional electrical conduits to provide for future project needs.

9. Surrounding Land Uses and Setting.

Surrounding land uses include Light Industrial, Public/Quasi Public and Open Space, Parklands and Habitat.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

See Section 1.7 of this document for other public agencies whose approval is required.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City sent letters to Native American individuals and organizations on May 31, 2016 for the Capital Improvements Program to provide a consultation opportunity for improvement projects at the Facility. Additional letters were sent for subsequent projects, including the Digated Sludge Dewatering Facility, to which Katherine Erolinda Perez, Chairperson of the Northern Valley Yokuts Tribes and the Nototomne Cultural Preservation, responded on April 26, 2019.

Consultation was not requested by the tribes for the proposed Project.

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forestry Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Energy
<input type="checkbox"/> Geology/Soils	<input checked="" type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Hazards & Hazardous Materials
<input checked="" type="checkbox"/> Hydrology/Water Quality	<input type="checkbox"/> Land Use/Planning	<input type="checkbox"/> Mineral Resources
<input type="checkbox"/> Noise	<input type="checkbox"/> Population/Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Utilities/Service Systems	<input type="checkbox"/> Wildfire	<input checked="" type="checkbox"/> Mandatory Findings of Significance

2.2 Environmental Checklist

2.2.1 Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
I. AESTHETICS — Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project area is located near the southern tip of the San Francisco Bay and northwest of the existing Facility (see Figure 1-1). The outfall channel extends northwest of the main portion of the Facility property, near the southern edge of San Francisco Bay. The Facility's existing SO₂ building and transformer are located directly east of the outfall bridge and weir structure. 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 from elevated locations.

There are no public roadways in the immediate vicinity of the Project area. The levee road is used only by the Facility staff for maintenance access. Grand Boulevard runs along the west side of the channel and Mallard Slough.

The Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) Environmental Education Center is located approximately 500 feet west of the Project site. The Mallard Slough Trail, the New Chicago Marsh Trail, and the Marsh View Trail are all located near the Refuge's Environmental Education Center (see Figure 1-2). The Mallard Slough Trail runs west of the Artesian Slough⁴, which is north and west of the Project area (USFWS, 2013). These trails and the Environmental Education Center are the primary publicly accessible location from which the project area could potentially be seen; however, interceding vegetation may obscure the view. The Zanker Material Processing Facility and Zanker Road Landfill lie adjacent and southwest of the project site. Existing views from the project site include large heavy equipment associated

⁴ Mallard Slough and Artesian Slough are alternative names for the same body of water. The latter is more commonly used in current maps and documents, but the Refuge uses the older name for the trail itself.

with the landfill and materials processing facility. During the 6-month construction period, views of the Project area by recreationists and other visitors may be affected by the construction equipment. However, these altered views would be temporary in nature, and no view obstruction associated with the proposed project would occur past the construction phase.

The nearest residences within the Project area vicinity are located in the Alviso Village area, which is approximately 0.64 miles (3,400 feet) southwest of the Project area.

Discussion

- a) **No Impact.** No designated scenic vistas occur in the Project vicinity. The General Plan defines scenic vistas or resources in the City of San José as broad views of the Santa Clara Valley, the hills and mountains surrounding the valley, the urban skyline, and the baylands. The City of San José has many scenic resources which include the hills and mountains which frame the valley floor. The Project site is relatively flat and allows for views of the eastern foothills, Mount Hamilton, and the Diablo Mountains to the east, and the San Francisco Baylands to the north. These views are seen by motorists and bicyclists from Los Esteros Road and Zanker Road but such views are temporary and fleeting. With the absence of designated scenic vistas in the area, construction and operation of the Project would therefore not result in a substantial adverse effect on a scenic vista and there would be no impact.
- b) **No Impact.** The Project area is not visible from any state scenic highways. 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. No trees are located within the Project area. No scenic resources are located on the site or in the immediate vicinity of the Project area. A portion of SR 237 west of Interstate 880, and North 1st Street from Vista Montaña to Tony P. Santos Street are designated as Gateways in the Envision San José 2040 General Plan (City of San José, 2011). The Project site is too distant to be seen from either the SR 237 Gateway or the North 1st Street Gateway, which are designated scenic resources. Thus, no impact is expected to occur.
- c) **Less than Significant Impact.** The Project area is considered to be in a non-urban setting due to the lack of development and the surrounding natural area in the project vicinity, which consists of the southern edge of the San Francisco bay and adjacent wetland areas. The project site is not publicly accessible via any roads. However, it could be visible from recreationists in boats in the water and potentially from visitors to the Don Edwards San Francisco Bay National Wildlife Refuge Environmental Education Center. Recreationists using the nearby recreational trails (i.e., the Mallard Slough Trail, the New Chicago Marsh Trail, and the Marsh View Trail) and waterways may see and note the construction equipment during the construction period. However, these views would be temporary in nature and limited to the six month-long construction period. In addition, views of the bridge from the trails are partially obstructed by vegetation and an existing chain-link fence; tall metallic electrical towers, which are similar to the bridge's architectural makeup are part of the existing environment and view of the outfall bridge

from the trails. The existing views of the adjacent landfill's heavy equipment would continue. The existing bridge is proposed to be replaced by a similarly-sized pedestrian bridge and would be consistent with the existing visual character of the site which is a part of the water treatment facility, such as the SO₂ building. There are differences between the existing and proposed bridge in terms of the overall design (see Photos 1 and 2 in the Project Description). While the proposed aluminum bridge may stand out visually more than the existing wooden bridge due to the difference in material and negligible change in size, its presence is still consistent with the infrastructure at the site as part of the water treatment facility and surrounding partially developed landscape. Therefore, the proposed project would not degrade the existing visual character or quality of public views of the site and its surroundings. These impacts are considered less than significant.

- d) **Less than Significant Impact.** The proposed pedestrian bridge would be made of aluminum (see Photo 2 in the Project Description), which is a change from the existing wooden structure. As described earlier, the bridge would be composed of aluminum members, which may reflect sunlight when new, but this effect would diminish approximately within a year as the metal develops an aluminum oxide skin. While it is new, the aluminum material could cause glare when the sun is reflecting off of the sides of it during certain times of the day and this glare effect could impact nearby recreationists. However, the likelihood that recreationists would see the bridge from the nearby trails is minimal and any views of the bridge are likely to be obstructed by vegetation and an existing chain-link fence. For recreationists that do see the glare from the bridge, it would be a temporary effect as they are walking along any trails and therefore would be less than significant. As part of the outfall bridge replacement, new LED lighting is proposed on the bridge (four pole mounted fixtures). The new lighting would consist of LED floodlights, which would be on all the time during night hours to provide safe operator access to the bridge. Lighting would be designed to minimize glare outside of the work area. While the existing lighting on the bridge consists of a single post (and a recently removed light fixture from the middle of the bridge), it is currently insufficient for the intended purpose of providing a safe environment for Facility staff during nighttime operations. Prior to the removal of the light fixture from the middle of the bridge the lighting condition was brighter than it currently is. Therefore, the proposed new lighting would be brighter than the existing condition at the outfall bridge (and likely brighter than the prior condition when all light fixtures were operational). However, as described previously, the current lighting condition is not adequate for Facility staff during nighttime operations and the additional light is needed for safety of personnel at night.

While night time construction is not expected to occur, there is a possibility of occasional night work in order to keep to the construction schedule. If any construction lighting is required at night, lights designed with low light spillover utilizing shields or other light pollution reduction features would be used. Because there are no residences or other active nighttime uses in the immediate vicinity of the proposed Project, there would be no lighting or glare-related impacts from construction or on-going Project operations which

would adversely affect daytime or nighttime views in the area, therefore the impact is less than significant.

References

City of San José, 2011. *Envision San José 2040 General Plan*. November 2011.

U.S. Fish & Wildlife Service, 2013. Don Edwards San Francisco Bay National Wildlife Refuge Trail Guide. July 2013.

2.2.2 Agriculture and Forestry Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
II. AGRICULTURE AND FORESTRY 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 Dept. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Project site is located upon land classified by the California Department of Conservation as Urban and Built-Up Land (CDC, 2016). No Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance are in the Project area and the Project would not alter other areas which could, directly or indirectly, result in the conversion of farmland or forest land to other uses. In addition, no lands in the Project vicinity are enrolled in the Williamson Act Program. The Project site is zoned Heavy Industrial south of Los Esteros Road, Light Industrial north of Los Esteros Road to approximately half way up the outfall channel, and Agricultural from half way up the channel to the outfall bridge and weir. No agricultural activities take place within or near the Project area.

Discussion

- a) **No Impact.** As noted above, the Project site is not located on, and would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.
- b) **Less than Significant Impact.** As stated above, the Project site is zoned Heavy Industrial south of Los Esteros Road, Light Industrial north of Los Esteros Road to

approximately half way up the outfall channel, and Agricultural from half way up the channel to the outfall bridge and weir. The Project would involve replacement of an existing bridge and weir structure as part of on-going Facility maintenance and would not interfere with existing zoning. The Project would not result in the construction of any new facilities or other displacement, interference, or loss of agricultural lands, or land under a Williamson Act contract. Additionally, the proposed Project would not alter other areas which could, directly or indirectly, result in the conversion of farmland or land under a Williamson Act contract.

- c) **No Impact.** The Project area is zoned as agricultural land by the San José Zoning Ordinance. The Project would not conflict with existing zoning for, and would not cause rezoning of forest land, timberland, or timberland zoned as Timberland Production.
- d) **No Impact.** As stated above, the Project area is zoned as agricultural land, and would not result in the loss of forest land or conversion of forest land to non-forest use.
- e) **No Impact.** The Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agriculture use or conversion of forest land to non-forest use.

References

California Department of Conservation, 2016. Farmland Mapping and Monitoring Program, available at <https://www.conservation.ca.gov/dlrp/fmmp>. Accessed July 3, 2019.

County of Santa Clara, Williamson Act Properties. Available at:
<https://sccplanning.maps.arcgis.com/apps/webappviewer/index.html?id=1f39e32b4c0644b0915354c3e59778ce>. Accessed November 20, 2019.

City of San José, Planning, Building and Code Enforcement, available at <http://www.sanjoseca.gov/index.aspx?NID=2037>. Accessed July 3, 2019.

2.2.3 Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
III. AIR QUALITY —				
Where available, the significance criteria established by the applicable air quality management district 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Project site is located in the San Francisco Bay Area Air Basin (SFBAAB) under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). 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 more stringent 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 SFBAAB currently is designated as a non-attainment area for violation of the state 1-hour and 8-hour ozone standards, the federal ozone 8-hour standard, the state respirable particulate matter (PM₁₀) 24-hour and annual arithmetic mean standards, the state fine particulate matter (PM_{2.5}) annual arithmetic mean standard, and the federal PM_{2.5} 24-hour standard. The Project area is designated as attainment for all other state and federal standards (BAAQMD, 2017a).

The most recently adopted air quality plan for the SFBAAB is the *2017 Clean Air Plan* (BAAQMD, 2017b). The 2017 CAP provides a regional strategy to protect public health and protect the climate by continuing progress toward attaining all state and federal air quality standards; eliminating health risk disparities from exposure to air pollution among Bay Area communities; transitioning the region to a post-carbon economy needed to achieve greenhouse gas (GHG) reduction targets for 2030 and 2050; and providing a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants; to reduce emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term; and to decrease emissions of carbon dioxide by reducing fossil fuel combustion (BAAQMD, 2017b).

The BAAQMD *CEQA Air Quality Guidelines*, adopted in 2010 and amended in 2011 and again in 2017 (BAAQMD, 2017c), assist in the evaluation of air quality impacts of projects and plans proposed within the SFBAAB. 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. The analysis presented below is based on the BAAQMD's 2017 thresholds to evaluate the Project's impacts on air quality.

The Envision San José 2040 General Plan (General Plan) provides planning guidance for projects within the city of San José. Specific to air quality, the General Plan contains numerous policies that pertain to the project. In general, the applicable General Plan policies require the project to comply with all federal and state regulations, follow the BAAQMD *CEQA Air Quality Guidelines*, and obtain all applicable permits from the BAAQMD. In addition, the following policies apply to the PMP:

Policy MS-10.5: In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

Policy MS-11.3: Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

Policy MS-11.5: Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

From an air quality standpoint, 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 along Spreckles Avenue, approximately 3,400 feet (0.7 miles) west of the Project area. There are no hospitals, schools, daycare centers, or long-term care facilities within 1 mile of the Project area. The George Mayne Elementary School, where children frequently engage in outdoor activities, is located approximately 1.5 miles southwest of the proposed Project.

Discussion

- a) **Less than Significant Impact.** The BAAQMD CEQA Guidelines recommend that a project's consistency with the current air quality plan be evaluated using the following three criteria:
1. The project supports the goals of the air quality plan,
 2. The project includes applicable control measures from the air quality plan, and

3. The project does not disrupt or hinder implementation of any control measures from the air quality plan.

If it can be concluded with substantial evidence that a project would be consistent with the above three criteria, then the BAAQMD considers it to be consistent with air quality plans prepared for the Bay Area (BAAQMD, 2017c).

The primary goals of the 2017 CAP are to attain air quality standards, reduce population exposure and protect public health in the Bay Area, and reduce GHG emissions and protect the climate. The BAAQMD-recommended guidance for determining if a project supports the goals in the current air quality plan is to compare estimated project emissions with BAAQMD thresholds of significance. If project emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the 2017 CAP. As indicated in the following discussion with regard to air quality item b), the Project would result in a less-than-significant impact related to construction emissions of criteria air pollutants associated with vehicle exhaust, and implementation of the BAAQMD's recommended fugitive dust control measures would minimize impacts from fugitive dust. Therefore, the Project would be considered to support the primary goals of the 2017 CAP.

The 2017 CAP contains 85 control measures aimed at reducing air pollution in the Bay Area. Projects that incorporate all feasible air quality plan control measures are considered consistent with the CAP. Two of the stationary source control measures are applicable to operation of water pollution control plants: WR1 (Limit GHGs from Publicly-Owned Treatment Works [POTWs]) and WR2 (Support Water Conservation). Neither of these measures would apply to the Project which involves updating existing infrastructure and equipment. For these reasons, the Project would not be inconsistent with nor hinder implementation of applicable 2017 CAP control measures.

In summary, the Project would be consistent with all three criteria listed above to evaluate consistency with the 2017 CAP. Therefore, it would not conflict with or obstruct implementation of the 2017 CAP, resulting in a less-than-significant impact.

Less than Significant with Mitigation. According to the BAAQMD, no single project will, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. 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, according to the BAAQMD *CEQA Air Quality Guidelines*, if a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions (BAAQMD, 2017c). Alternatively, if a project does not exceed the identified significance thresholds, then the project would not be considered cumulatively considerable and would result in less-than-significant air quality impacts. The Project's individual contribution to the cumulative air quality of the area has

been evaluated below by comparing its construction and operational emissions to the applicable BAAQMD thresholds.

Construction

Construction activities associated with the Project would involve use of equipment that would emit exhaust containing ozone precursors (reactive organic gases or ROG, and nitrogen oxides, or NO_x). On-site and off-site vehicle activity associated with material transport and construction worker commutes would also generate emissions. Emission levels for these activities would vary depending on the number and types of equipment used, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NO_x from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during Project construction.

Air pollutant emissions of ROG, NO_x, PM₁₀, and PM_{2.5} that would be generated by off-road construction equipment (e.g., excavators, cranes, backhoes, off highway trucks) were estimated using the latest version of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) considering Project-specific construction schedule and equipment requirements. Estimated emissions also include emissions from vehicle trips associated with construction worker commute trips, material delivery and haul truck trips. All assumptions and calculations used to estimate Project construction emissions are provided in **Appendix A**.

Project construction emissions were estimated assuming that construction would take place from June 2021 to November 2021 over a period of 6 months equivalent to approximately 131 workdays. Average daily construction emissions were estimated by dividing the total construction emissions by the number of workdays. Estimated average daily emissions are shown in **Table 2-1** (below) and are compared to the BAAQMD thresholds.

TABLE 2-1
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (POUNDS/DAY)

Emissions	ROG	NO _x	Exhaust PM ₁₀ ^a	Exhaust PM _{2.5} ^a
Project Construction Emissions	1.4	17.8	0.5	0.5
BAAQMD Construction Threshold	54	54	82	54
Significant Impact?	No	No	No	No

NOTES:

Emissions estimated are based on types of construction equipment, number, and usage level provided by the applicant. CalEEMod defaults were used for construction schedule, number and length of vehicle trips associated with worker commute, vendor and hauling trips. All assumptions are included in **Appendix A**.

^a BAAQMD's construction-related significance thresholds for PM₁₀ and PM_{2.5} apply to exhaust emissions only and not to fugitive dust. The BAAQMD recommends Best Management Practices (BMPs) to control construction-generated fugitive dust.

SOURCE: **Appendix A**

As indicated in Table 2-1, the average daily construction exhaust emissions would not exceed the BAAQMD's significance thresholds. Therefore, impacts associated with the potential for construction-related exhaust emissions to result in or contribute to a violation of an air quality standard would be less than significant.

In addition to exhaust emissions, emissions of fugitive dust would also be generated by construction activities associated with grading and earth disturbance, travel on paved and unpaved roads, etc. With regard to fugitive dust emissions, the BAAQMD Guidelines focus on implementation of recommended dust control measures rather than a quantitative comparison of estimated emissions to a significance threshold. For all projects, the BAAQMD recommends the implementation of its Basic Construction Mitigation Measures (BAAQMD, 2017c). These measure are included as **Mitigation Measure AIR-1** below. With the implementation of this mitigation measure, fugitive dust impacts would also be considered less than significant.

Mitigation Measure AIR-1: BAAQMD Basic Construction Mitigation Measures Construction contractors shall be required to implement the following BAAQMD recommended basic construction mitigation measures to reduce fugitive dust emissions.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.
- 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.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Operation

Once operational, the Project facilities would not require additional staff. Upon completion of construction, the Project would result in moderately reduced maintenance-related trips compared to existing conditions, as the new single-span aluminum bridge is anticipated to be maintenance-free, and the installation of a fiber optic connection will reduce trips required to activate the aeration system. Other maintenance related trips are expected to continue as under existing conditions, which is about five trips per day. Therefore, the Project would not result in additional new criteria air pollutant emissions during operations. This would be a less-than-significant impact.

With implementation of the BAAQMD Basic Construction Measures, emissions of Project-related fugitive dust associated with short-term construction (unmitigated) and long-term operational emissions would be less than the respective significance thresholds. Therefore, the proposed Project would not result in emissions that would be cumulatively considerable, and associated impacts would be less than significant.

c) Less than Significant Impact.

Construction – Toxic Air Contaminants

Construction activities associated with the Project would result in the generation of exhaust emissions including diesel particulate matter (DPM), a known toxic air contaminant (TAC). Exposure of sensitive receptors to DPM emissions could result in an elevated health risk. Under the California Environmental Protection Agency guidelines, DPM is used as a surrogate measure of carcinogen exposure for the mix of chemicals that make up diesel exhaust as a whole.

The nearest off-site sensitive receptors are located approximately 3,400 feet from the Project site. The BAAQMD has identified a distance of 1,000 feet from the source to the closest sensitive receptor locations within which community health risk impacts are likely (BAAQMD, 2017c). Therefore, Project-related construction emissions would be sufficiently distant from the nearest sensitive receptor locations to avoid localized health risk and hazard impacts. Furthermore, as shown in Table 2-1, PM₁₀ and PM_{2.5} emissions associated with construction of the Project would be less than one pound per day each. At these emission levels and with the large buffer distance separating the sources and receptors, short-term construction activities extending over a duration of 6 months would not lead to a new significant increase in health risk from exposure to DPM. Therefore, the impact of exposure of sensitive receptors to TACs would be less than significant.

Construction - Criteria Air Pollutants

The Project would generate less than significant quantities of criteria pollutant emissions ROG, NO_x, and particulate matter, as discussed under checklist question b). However, the health impacts of these emissions on sensitive receptors is difficult if not speculative to quantify. Given that ozone formation occurs through a complex reaction between its precursors (i.e. NO_x and ROG) in the atmosphere with the presence of sunlight and meteorological conditions the impacts of ozone are often basin-wide or regional rather

than local (SCAQMD, 2014; SJVAPCD, 2014). The health-based ambient air quality standards for ozone are therefore the concentrations of ozone, not the tonnages of their precursor pollutants (i.e., NO_x and ROG). Because of the complexity involved with ozone formation, ozone concentration, and the state of environmental science modeling in use at this time, it is infeasible to quantify targeted ozone concentrations from NO_x or ROG emissions within the Project site. Since the Project would not exceed the numeric indicator for ROG and NO_x emissions during either construction or operation, it is not likely that Project ROG and NO_x emissions could result in an increase in ground-level ozone concentrations in proximity to the Project site or elsewhere in the air basin, and impacts can be considered less than significant.

As expressed in the *amicus curiae* brief submitted for the *Sierra Club v. County of Fresno* case (also known as the *Friant Ranch Case*; SJVAPCD, 2014), the CEQA significance thresholds for criteria pollutants from the air districts are set at emission levels tied to the region's attainment status and are emission levels at which stationary pollution sources permitted by the air district must offset their emissions. The CEQA project must use feasible mitigations in order for the region to attain the health based ambient air quality standards. Therefore, given that the Project would not exceed the mass emissions thresholds established by the BAAQMD, it is not likely that emissions from Project-related activities will cause or contribute to the exposure of sensitive receptors to ground-level concentrations in excess of health-protective levels.

The primary health concern with exposure to NO_x emissions is the secondary formation of ozone. As the *amicus curiae* briefs submitted for the *Sierra Club v. County of Fresno* case suggested, and as was stated above, because of the complexity of ozone formation, and given the state of environmental science modeling in use at this time, it is infeasible to determine whether, or to what extent, a single project's precursor (i.e., NO_x and ROG) emissions would potentially result in the formation of ground-level ozone, as well as when and where ground-level ozone would form. Furthermore, available models today are designed to determine regional, population-wide health impacts, and cannot accurately quantify ozone-related health impacts caused by Project level NO_x or ROG emissions. Notwithstanding these scientific constraints, the disconnect between project level NO_x emissions and ozone-related health impact cannot be bridged at this time.

Operation

Long-term operational-related emissions associated with the proposed Project would be similar or less than existing operation-related emissions and would be limited to vehicle use by staff for visual inspections approximately once per month and no other operational activities. Therefore, long-term operations-related impacts associated with exposure of sensitive receptors to substantial pollutant concentrations would be less than significant.

- d) **Less than Significant Impact.** Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes. Odors are also associated with such uses as sewage treatment facilities and landfills. The Project would involve replacement of existing

infrastructure and equipment upgrades which would not generate odors or affect existing odor control processes of the treatment facility. Activities and materials associated with construction would be typical of construction projects of similar type and size. Any odors generated during construction of the proposed Project would be localized, disperse quickly and not affect any sensitive receptors due to the distance separating the Project from the nearest sensitive receptors (approximately 3,400 feet). Therefore, the odor impact associated with the proposed Project would be less than significant.

References

- Bay Area Air Quality Management District (BAAQMD), 2017a. Air Quality Standards and Attainment Status, available at <http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status>, last updated January 5, 2017.
- BAAQMD, 2017b. Spare the Air: Cool the Climate – Final 2017 Clean Air Plan, adopted April 19.
- BAAQMD, 2017c, BAAQMD CEQA Air Quality Guidelines, updated May 2017.
- SCAQMD, 2014. Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and Brief of Amicus Curiae. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.
- SJVAPCD, Application for Leave to File Brief of Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party In Interest and Respondent, Friant Ranch, L.P. In the Supreme Court of California. Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno, 2014.
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2.2.4 Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
IV. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Regional Setting

The project is located within the Central California Coast Bioregion, which has a mild Mediterranean climate with generally warm, dry summers and cool, wet winters. This region includes marine, freshwater and terrestrial resources from the Santa Cruz Mountains on the north to Point Conception on the south. The edge of the continental shelf forms the western boundary; on the east, the region borders the Central Valley Bioregion. The region is characterized by rugged northwest-to-southeast trending mountain ranges including the Santa Cruz Mountains, Santa Lucia Ranges, San Rafael Mountains, Diablo Range, Gabilan Range and Temblor Range. These mountains are separated by a series of valleys, including the Santa Clara, Salinas and Santa Maria River valleys. Habitats in this diverse bioregion include, but are not limited to, coastal prairie scrub, chaparral, native and non-native grassland, mixed hardwoods, oak woodlands, redwood forests, and coastal salt marshes (USGS, 2019).

The San Francisco Estuary is the largest estuary on the West Coast and supports numerous aquatic habitats and biological communities. It encompasses 550 square miles and includes shallow mudflats, tidal marshes, and open waters. The San Francisco Estuary is an important

wintering and migratory stopover site for hundreds of thousands of birds on the Pacific Flyway, and hosts more wintering shorebirds than any area on the west coast outside of Alaska (SFBCDC, 2019).

Local Project Setting

The Project site is adjacent to the Facility, located at 700 Los Esteros Road in the city of San José, Santa Clara County, California. The outfall channel extends northwest of the main portion of the Facility property, near the southernmost extent of San Francisco Bay as shown in Figure 1-2 (Project Location in the *Initial Study*).

Vegetation Communities and Sensitive Biological Resources

Vegetation communities are assemblages of plant species (defined by species composition and relative abundance) that occur together in the same area. There are four vegetation communities present within the study area: tidal freshwater marsh, non-tidal seasonal marsh, open water, and disturbed/ruderal, as well as developed areas that lack vegetation. These vegetation communities and developed areas are shown in Figure 1 of the Biological Technical Memorandum (Appendix B).

Tidal Freshwater Marsh

Tidal freshwater marsh is located along the eastern boundary of Artesian Slough and outboard side of the levee on the west side of outfall channel. Tidal freshwater marsh consists of vegetated areas subject to tidal influence. Within Artesian Slough, the freshwater flow from the Facility, combined with the low levels of tidal saltwater influence from San Francisco Bay, result in dominance of freshwater emergent plant species dominating this area. Dominant species observed in this habitat type in the study area include hardstem bulrush (*Schoenoplectus acutus*), narrow leaf cattail (*Typha angustifolia*), and western goldenrod (*Euthamia occidentalis*).

Tidal freshwater marsh typically supports a wide variety of wildlife, beyond species that exclusively utilize freshwater wetlands (ICF International, 2012). Wildlife species commonly found in this habitat include salt marsh harvest mouse (*Reithrodontomys raviventris*), western pond turtle (*Actinemys marmorata*), California Ridgway's rail (*Rallus obsoletus obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), California least tern (*Sterna antillarum browni*), American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), great egret (*Ardea alba*), black-crowned night heron (*Nycticorax nycticorax*), great blue heron (*Ardea herodias*), black-necked stilt (*Himantopus mexicanus*), saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis nigricans*), western snowy plover (*Charadrius alexandrinus nivosus*), cliff swallow (*Petrochelidon pyrrhonota*), tricolored blackbird (*Agelaius tricolor*), and red-winged blackbird (*Agelaius phoeniceus*).

Non-Tidal Seasonal Marsh

Non-tidal seasonal marsh is located east of the outfall channel's east levee and extends from the area east of the daylight station to the SO₂ building. Naturally-occurring non-tidal seasonal marsh occurs higher in the marsh than tidal salt marsh and is not frequently inundated by tidal water.

However, many areas of non-tidal seasonal marsh in the South Bay, like those in the study area, have been cut off from tidal action by manmade obstructions such as levees, dikes, access roads, and other hydrologic impediments. Specifically, in the marsh area east of the levee, the habitat is surrounded by dikes, but subject to extremely muted tidal influence from a small damaged culvert leading from Artesian Slough. Dominant plant species comprising this habitat in the study area include pickleweed (*Sarcocornia pacifica*), alkali heath (*Frankenia salina*), and saltgrass (*Distichlis spicata*). Other species observed in non-tidal seasonal salt marsh habitat in the Project site include perennial pepperweed (*Lepidium latifolium*) and dodder (*Cuscuta pacifica [salina]*).

Wildlife species commonly found in this habitat include salt marsh harvest mouse, California black rail, American coot, mallard, great egret (*Ardea alba*), northern harrier (*Circus cyaneus*), and white-tailed kite (*Elanus leucurus*).

Open Water

Open water includes all areas that are unvegetated (less than 5 percent vegetation cover) and remain inundated throughout the year. This includes the discharge outfall channel and Artesian Slough, both of which are subject to tidal influence. The discharge outfall channel is partially separated from Artesian Slough by an existing weir structure but is still subject to tidal flows originating from San Francisco Bay during high tides. The discharge outfall channel is inundated by tertiary treated wastewater effluent.

Many bird species will use open water habitat including mallard, American coot, California gull (*Larus californicus*), gadwall (*Anas strepera*), Clark's grebe (*Aechmophorus clarkii*), pied-billed grebe (*Podilymbus podiceps*), northern shoveler (*Anas clypeata*), double-crested cormorant (*Phalacrocorax auritus*), California brown pelican (*Pelecanus occidentalis californicus*), and Canada goose (*Branta canadensis*). Bird species that forage along the edges of open water include snowy egret (*Egretta thula*), great egret and great blue heron. Aquatic species including Pacific lamprey (*Entosphenus tridentata*), longfin smelt (*Spirinchus thaleichthys*), Central California roach (*Lavinia symmetricus symmetricus*), Sacramento sucker (*Catostomus occidentalis*), prickly sculpin (*Cottus asper*), mosquitofish (*Gambusia affinis*), bluegill (*Lepomis macrochirus*), and inland silverside (*Menidia beryllina*) are known to occur in the tidal waters of Artesian Slough. However, with the exception of mosquitofish, none of these species have been observed within the outfall channel. The lack of colonization within the outfall channel may result from the influx of freshwater from the Facility's Filtration Influent Pump Station effluent discharge location or from the limited tidal connection between the two waterways. The fish community of the outfall channel is exclusively non-native and is comprised of largemouth bass (*Micropterus salmoides*), common carp (*Cyprinus carpio*), and mosquitofish (*Gambusia affinis*).

Disturbed/Ruderal

Disturbed/ruderal habitats occur on the edges of levee roads and on levee slopes in the study area. They are upland areas dominated by ruderal, nonnative herbaceous vegetation that are subject to regular vegetation management (i.e., mowing). Common species in this habitat type include bristly oxtongue (*Helminthotheca echioides*), black mustard (*Brassica nigra*), Italian thistle

(*Carduus pycnocephalus*), and nonnative grasses such as harding grass (*Phalaris aquatica*), foxtail brome (*Bromus madritensis* ssp. *rubens*), and slender oat (*Avena barbata*).

Wildlife species observed during the reconnaissance survey in this area include black-crowned night heron, black phoebe, house finch (*Haemorhous mexicanus*), common raven (*Corvus corax*), European starling (*Sturnus vulgaris*), and red-winged blackbird. Western burrowing owl (*Athene cunicularia hypugaea*) may also occupy disturbed/ruderal habitat if suitable burrows are present.

Developed

Developed areas within the study area include the levee roads and turnaround areas, the bridge and weir, SO₂ building, transformer, and the area where the conduit extends from the edge of east levee to the Facility's Filtration Influent Pumping Station. Developed areas lack plant communities and generally do not provide habitat; however, these areas may provide corridors for terrestrial wildlife such as raccoon (*Procyon lotor*) and Virginia opossum (*Didelphis virginiana*) moving from one habitat patch to another.

Waters of the U.S./Waters of the State

"Waters of the United States," are defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) as rivers, streams, mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters. These waters fall under the jurisdiction of the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA). Additionally, the Corp regulates navigable waters under Section 10 of the Rivers and Harbors Act (R&HA). Navigable waters are defined as those waters that are subject to the ebb and flow of the tide or that are presently used, have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The San Francisco Bay Regional Water Quality Control Board (RWQCB) regulates CWA Section 404 waters and R&HA Section 10 waters under Section 401 of the CWA. The RWQCB also regulates waters of the state under the Porter-Cologne Water Quality Control Act. Waters of the state are broadly defined as "any surface water or groundwater, including saline waters, within the boundaries of the state."

An aquatic resources delineation was conducted by ESA botanist Joe Sanders and ESA biologist Sharon Dulava on August 14, 2019. Aquatic resources located within the survey area are shown in **Table 2-2** and Figure 2-1.

TABLE 2-2
AQUATIC RESOURCES IN THE PROJECT AREA

Wetland Type	Below MHW*	Below MHHW*
	Area in acres (square feet)	Area in acres (square feet)
Waters		
Open Water (Channel)	0.663 (28,866 ft ²)	0.663 (28,878 ft ²)
Wetlands		
Tidal Freshwater Marsh (Emergent Wetland)	0.183 (7,973 ft ²)	0.204 (8,901 ft ²)
Total Area of Wetlands and Waters	0.846 acres (36,839 ft²)	0.867 acres (37,779 ft²)

NOTES:

Minor differences in numbers and Total are due to rounding error

* The aquatic feature acreages up to mean high water (MHW) elevation at 6.79 feet (NAVD88) are within the mean higher high water (MHHW) elevation at 7.40 feet (NAVD88).

SOURCE: ESA 2019

Sensitive Natural Communities

Sensitive natural communities are designated by various resource agencies, such as California Department of Fish and Wildlife (CDFW), or in local policies and regulations, and are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution and are considered threatened enough to warrant some level of protection. CDFW tracks communities of conservation concern through its *California Sensitive Natural Community List* (CDFW, 2019d). Natural Communities with ranks of S1 to S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents (CDFW, 2019d).

Sensitive plant communities identified by CDFW on their *California Sensitive Natural Community List* are summarized in **Table 2-3**. Only those Natural Communities with a rarity ranking of S1 to S3, as well as communities considered sensitive as marked with a 'Y' on the *California Sensitive Natural Community List*, are considered sensitive and are listed here.

Critical Habitat

The U.S. Fish and Wildlife Service (USFWS) can designate critical habitat for species that have been listed as threatened or endangered. "Critical habitat" is defined in Section 3(5)(A) of the federal Endangered Species Act as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation.

TABLE 2-3
SENSITIVE NATURAL COMMUNITIES WITHIN THE STUDY AREA RELATIVE TO NATURAL COMMUNITIES IDENTIFIED
IN THE HABITAT ASSESSMENT

Location	Vegetation Types Present	CDFW California Natural Community	Natural Community Alliance(s) ^a	State Rarity Ranking ^b
Within Project site, along edge of open water in outflow channel	Common bulrush (<i>Schoenoplectus acutus</i>) and broad-leaf cattail (<i>Typha domingensis</i>)	Hardstem and California bulrush marshes	Schoenoplectus (<i>acutus</i> , <i>californicus</i>) Herbacious Alliance	S3
Within study area adjacent to Project site, east of outflow channel (non-tidal marsh)	Pickleweed (<i>Salicornia pacifica</i>)	Pickleweed mats	Sarcocornia pacifica (<i>Salicornia depressa</i>) Herbaceous Alliance	S3
Within study area adjacent to Project site, west of outflow channel (tidal marsh)	Dominated by pickleweed. Also alkali heath (<i>Frankenia salina</i>), and non-natives, perennial pepperweed (<i>Lepidium latifolium</i>), and rabbitsfoot grass (<i>Polypogon monspeliensis</i>).	Pickleweed mats	Sarcocornia pacifica (<i>Salicornia depressa</i>) Herbaceous Alliance	S3

SOURCES:

^a Sawyer, J., T. Keeler-Wolf, J. M. Evens. 2009. A Manual of California Vegetation. Available: <http://vegetation.cnps.org/>.

^b S1 = **Critically imperiled** in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. S2 = **Imperiled** in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state. S3 = **Vulnerable** in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

Critical habitat for the California Central Coast (CCC) steelhead Distinct Population Segment (DPS) and southern DPS of North American green sturgeon (*Acipenser medirostris*) is present immediately downstream of the weir within Artesian Slough. The CCC steelhead DPS includes naturally spawned anadromous populations originating below natural and manmade impassable barriers from the Russian River to and including Aptos Creek, and all drainages of San Francisco and San Pablo Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers (USFWS, 2000). Critical habitat for green sturgeon includes the Sacramento River, the Sacramento-San Joaquin Delta, and Suisun, San Pablo and all of San Francisco Bay below the higher high water (NMFS, 2009).

There is no critical habitat for terrestrial species within the project area. The nearest critical habitat for a terrestrial species is western snowy plover (*Charadrius nivosus nivosus*), 3 miles north from the project site, as shown in Figure 4 of the Biological Technical Memorandum (**Appendix B**), below (USFWS, 2019a; USFWS, 2019b).

Essential Fish Habitat

The Sustainable Fisheries Act of 1996, amended the Magnuson-Stevens Fishery Conservation and Management Act (MSA) to establish new requirements for Essential Fish Habitat (EFH) descriptions in Federal Fisheries Management Plans and to require Federal agencies to consult with NMFS on activities that may adversely affect EFH. EFH within the study area is covered under the Pacific Salmon Fisheries Management Plan (FMP) and is designed to protect habitat for

commercially-important salmonid species. Central Valley fall-run Chinook salmon is the only species that may be seasonally present within the study area.

Special-Status Species

A list of special-status plant and animal species that could occur in the study area was compiled based on data described below in Analysis. Figures 2 and 3 in the Biological Technical Memorandum (**Appendix B**) present special-status plant and animal occurrences, respectively, documented in the CDFW California Natural Diversity Database (CNDDB) database within 3 miles of the study area. Conclusions regarding habitat suitability and the potential for species occurrence in the study area are based on the results described in previous studies, the reconnaissance survey and wetland delineation (**Appendix C**) on August 14, 2019 conducted by ESA, and the analysis of existing literature and the database queries described above. Detailed descriptions of each special-status species and their potential to occur in the study area are included in Table 1 of the Biological Technical Memorandum (**Appendix B**).

Determination of a low, moderate, or high potential for species occurrence in the study area was 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 (**Table 2-4**). Species unlikely to occur, or with a low potential to occur, in the study area due to lack of suitable habitat or range are not discussed.

In addition to the species listed above, 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”. These protections apply to special-status birds identified in Table 2-4 and other resident or migratory birds that may occur. Potential Project-related significant impacts to special-status species with a moderate to high potential to occur in the study area, sensitive natural communities and wetlands, wildlife movement corridors, nursery sites, and relevant local policies and plans are analyzed in the Discussion section, below.

Analysis

This analysis is based on results of the following data: (1) reviewed available biological resource surveys and relevant biological literature of the Project site and surrounding vicinity; (2) reviewed special-status species lists derived from the USFWS, CDFW, and the California Native Plant Society (CNPS); and (3) a field reconnaissance survey of the Project site conducted on August 14, 2019 to record current conditions (refer to the Biological Technical Memorandum, **Appendix B**).

This section of the document includes two different terms to describe the area around the outfall bridge and the biological resources located near it. The term “Project site” refers to all areas of anticipated direct impacts, including the outfall bridge and weir, daylight station, SO₂ building and transformer, SO₂ access road improvement area, fiber-optic cable installation area, and portions of the outfall channel where rip-rap would be placed and where divers would install monitoring equipment at the outfall pipes. The term “study area” is used to identify the area investigated in the reconnaissance-level biological surveys and encapsulates adjacent areas to the

Project site that could be indirectly impacted by Project activities. The study area includes the Project site, plus a 75-foot buffer (see Figure 1-4).

Impacts related to construction are analyzed below. As described in Section 1.6 of the Project Description, operations would result in moderately reduced on-site maintenance or operations similar to existing conditions; therefore, there are no potential impacts to biological resources related to operations.

Previous Biological Resources Surveys and Relevant Biological Literature

Other projects in the vicinity of the San José-Santa Clara Regional Wastewater Facility (Facility) and the study 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. Therefore, no focused special-status wildlife or plant surveys were performed for this Project analysis, but a reconnaissance-level biological survey and a delineation of jurisdictional wetlands and other waters of the U.S. were performed.

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

- San José-Santa Clara Water Pollution Control Plant Master Plan EIR and Existing Conditions Report (City of San José, 2013)
- San José-Santa Clara Regional Wastewater Facility Emergency Generators Project Initial Study (City of San José, 2014)
- San José-Santa Clara Regional Wastewater Facility Iron Salt Feed Station Project Initial Study (City of San José, 2015)
- Santa Clara Valley Habitat Plan (ICF International, 2012a)
- San José Riparian Corridor Protection and Bird-Safe Design Policy (Policy 6-34)

The City approved the Riparian Corridor Protection and Bird-Safe Design Policy (Policy 6-34) on August 23, 2016 (City of San José, 2016). The policy provides guidance for how riparian projects⁵ should be designed to protect and preserve the City's riparian corridors (e.g., general guidelines for building setbacks from the riparian corridor and recommendations for use of materials and lighting that are designed to reduce light and glare impacts on riparian corridors), and provide bird-safe design guidelines for buildings and structures constructed north of Highway 237. The policy provides bird-safe design guidance for buildings and structures, such as:

1. Avoiding mirrors, large areas of reflective glass, transparent glass skyways, walkways, entryways, free-standing glass walls, transparent building corners, and funneling open space to a building façade;

⁵ "Riparian Projects" are defined in the policy as any development project located within 300 feet of a riparian corridor's top of bank or vegetative edge, whichever is greater, and that requires approval of a Development Permit as defined in Chapter 20.200 of Title 20 of the San Jose Municipal Code (the Zoning Code), except that projects that only required approval of a Single-Family House Permit under the provisions of the Zoning Code are not subject to this Policy.

2. Strategically placing landscaping to reduce reflection and views of foliage inside or through glass;
3. Avoiding or minimizing up-lighting and spotlights; and
4. Turning off of shielding non-emergency lighting at night to minimize light from buildings that would be visible to birds, especially during bird migration season (February–May and August–November).

These guidelines are consistent with policies of the General Plan and supplement the regulations in the Council-adopted Santa Clara Valley Habitat Conservation Plan/Natural Community Conservation Plan (Habitat Plan), the Zoning Code, and other existing City policies that may provide for riparian protection and bird-safe design.

Special-Status Species Database Lists

Special-status species lists were derived from the USFWS, CDFW, CNDDDB, and CNPS Rare Plant Inventory (**Appendix B**). The primary sources of data referenced in support of this analysis are as follows:

- USFWS, Information for Planning and Consultation (IPaC) list of threatened and endangered species that may occur in the proposed Project location, and/or may be affected by Project activities (USFWS, 2019)
- National Marine Fisheries Service (NMFS) West Coast Region – California Intersection of Milpitas USGS 7.5” Topographic Quadrangle with NOAA Fisheries ESA Listed Species (NMFS, 2019)
- CNDDDB, Rarefind 5 computer program: Federal Endangered and Threatened Species that May Be Affected by Projects in the Milpitas, Mountain View, Newark, and Niles, California, U.S. Geological Survey 7.5-minute topographic quadrangles (CDFW, 2019a)
- Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2019b)
- Special Animals List (CDFW, 2019c)
- CNPS, Online Inventory of Rare and Endangered Plants for the Milpitas, Mountain View, Newark, and Niles, California, U.S. Geological Survey 7.5-minute topographic quadrangles (CNPS, 2019)

Reconnaissance Survey

Biological resources within the study area were verified by ESA biologists Joe Sanders and Sharon Dulava during a field reconnaissance survey conducted on August 14, 2019. The field reconnaissance consisted of a pedestrian survey along the levees surrounding the discharge outfall channel, including the outfall bridge and weir, daylight station, SO₂ Building and transformer, SO₂ access road improvement, and fiber-optic cable installation areas, where ESA biologists documented observations within the study area. 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 (refer to the Biological Technical Memorandum,

Appendix B.

The findings of the reconnaissance surveys, the literature review, and the special-status species database queries were used to compile the list of special-status species that may occur at the Project site (Table 2-4) and to characterize the local Project setting.

Discussion

- a) **Less than Significant with Mitigation.** The CNDDDB and USFWS documents 79 special-status wildlife species in the Milpitas, Mountain View, Newark, and Niles, California 7.5-minute quadrangles, and the CNDDDB and CNPS document a total of 27 plant species in these quadrangles. A full list of these species is provided in **Appendix B**. Habitat for most of these species does not occur on the Project site and the following discussion, which draws on the text above, analyzes potential significant impacts to species for which potentially suitable habitat is present and that have a moderate or high likelihood to occur in the study area.

Special-Status Wildlife

The proposed Project could have a substantial adverse direct or indirect impacts on special-status wildlife species that are known to occur or have a moderate or high potential to occur in the Project study area. Areas within or nearby the Project site contain suitable habitat that may support special-status wildlife species including longfin smelt, Central California Coast (CCC) steelhead, Central Valley (CV) fall-run ESU of Chinook salmon, western pond turtle, tricolored blackbird, western burrowing owl, northern harrier, white-tailed kite, saltmarsh common yellowthroat, black rail, Alameda song sparrow, Ridgway's rail, salt marsh harvest mouse, and salt marsh wandering shrew.

Construction activities that could cause direct impacts on special-status wildlife include vegetation removal and ground disturbance, trenching, Project staging and access. Potential indirect impacts on special-status wildlife species would include noise, vibration, and increased activity levels associated with grubbing, earth moving, and heavy equipment operation during construction, and increased turbidity due to in-water work. Direct and indirect impacts would be limited to the duration of Project construction as disturbed areas would be restored following construction, and the new facilities would not substantially alter existing habitat conditions or result in long-term adverse effects on special-status wildlife.

TABLE 2-4
SPECIAL-STATUS SPECIES AND HABITAT WITH A MODERATE OR HIGH POTENTIAL TO OCCUR WITHIN THE STUDY AREA AND CRITICAL HABITAT AND ESSENTIAL FISH HABITAT WITHIN THE STUDY AREA

Common Name	Scientific Name	Special-Status Species Status ^a (Federal/State/Other)	Potential to Occur
Fish			
Longfin Smelt	<i>Spirinchus thaleichthys</i>	FC/ST/-	Moderate
Reptiles			
Western pond turtle	<i>Emys marmorata</i>	-/SSC/-	Moderate
Birds			
Tricolored blackbird	<i>Agelaius tricolor</i>	-/CE/BCC	Moderate
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	-/SSC/-	Moderate
Northern harrier	<i>Circus cyaneus</i>	-/SSC/-	Moderate
White-tailed kite	<i>Elanus leucurus</i>	-/FP/-	Moderate
Saltmarsh common yellowthroat	<i>Geothlypis trichas sinuosa</i>	-/SSC/BCC	Moderate
California black rail	<i>Laterallus jamaicensis coturniculus</i>	-/ST;FP/-	Moderate
Alameda song sparrow	<i>Melospiza melodia pusillula</i>	-/SSC/BCC	Moderate
California Ridgway's rail	<i>Rallus obsoletus obsoletus</i>	FE/SE;FP/-	Moderate
Mammals			
Salt marsh harvest mouse	<i>Reithrodontomys raviventris</i>	FE/SE;FP/-	Moderate
Salt marsh wandering shrew	<i>Sorex vagrans halicoetes</i>	--/SSC/--	Moderate
Plants			
Congdon's tarplant	<i>Centromadia parryi</i> ssp. <i>congdonii</i>	-/-/1B.1	High
Saline clover	<i>Trifolium hydrophilum</i>	-/-/1B.2	Moderate
Critical Habitat			
Steelhead – California Central Coast DPS	<i>Oncorhynchus mykiss</i>	n/a	n/a
North American Green Sturgeon – Southern DPS	<i>Acipenser medirostris</i>	n/a	n/a
Essential Fish Habitat – Pacific Coast Salmon Fisheries Management Plan			
Chinook salmon - Central Valley Fall-Run	<i>Oncorhynchus tshawytscha</i>	n/a	n/a

Federal Listings

FE = Listed as endangered under the FESA
 FT = Listed as threatened under the FESA
 FC = Candidate for listing under the FESA
 BCC = Bird of Conservation Concern (USFWS)

State Listings

SE = Listed as endangered under the CESA
 ST = Listed as threatened under the CESA
 SSC = Species of Special Concern (CDFW)
 CE = Candidate Endangered (CDFW)
 FP = Fully Protected (CDFW)

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.
 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.
 n/a = not applicable

SOURCE: ESA 2019 (**Appendix B**)

Implementation of the following mitigation measures would reduce construction impacts on special-status wildlife to a less-than-significant level by avoiding and reducing habitat disturbance where feasible, excluding wildlife from entering Project areas during construction, conducting surveys for listed or sensitive species prior to construction, avoiding disturbance to nesting birds through seasonal work limits and/or buffers around active nests or roosts, and requiring monitoring of construction activities by a qualified biologist. **Mitigation Measure BIO-1** provides broad protection measures for sensitive resources within and adjacent to the Project site. The following species-specific subsections provide more detailed information on potential Project impacts on special-status wildlife and their associated habitats, and mitigation measures to reduce or eliminate those impacts.

Mitigation Measure BIO-1: General Construction Measures.

- Prior to construction, all construction workers shall take part in an environmental awareness program conducted by an agency-approved biologist. The biologist shall train work crews in standard procedures for identifying and avoiding impacts to all special-status species with the potential to occur in the work area (steelhead – Central California Coast DPS, Chinook salmon – Central Valley fall-run ESU, longfin smelt, western pond turtle, Ridgway's rail, black rail, western burrowing owl, birds protected by the Migratory Bird Treaty Act, salt marsh harvest mouse, salt marsh wandering shrew, Congdon's tarplant and saline clover). The awareness program shall be conducted at the start of construction and thereafter as required for new construction personnel.
- At the end of each work day, all excavations (i.e. holes, construction pits, and trenches) of a depth of 8 inches or greater shall be covered with plywood or other hard material, and gaps around the cover shall be filled with dirt, rocks, or other appropriate material to prevent entry by wildlife. If excavations cannot be covered, then they shall include escape ramps constructed of either dirt fill, wood planking, or other appropriate material installed at a 3:1 grade (i.e., an angle no greater than 30 degrees) to allow wildlife that fall in a means to escape.

Special-Status Fish Species

Longfin smelt is a small, slender-bodied pelagic fish that generally lives for two years although some three-year smelt have been observed. Longfin smelt have been recorded in low numbers in recent years in portions of South San Francisco in the study area (IEP, 2014). Longfin smelt are generally rare in Artesian Slough; however, they have been observed at the mid and far downstream points of the slough (nearest location is approximately $\frac{3}{4}$ -mile north of Project site) and more frequently out into Lower Coyote Creek and Pond A19 (Erwin, 2017). As such, they have a moderate potential to occur within the Project site.

Because all listed fish species considered in this document share the same aquatic habitat, potential impacts discussed below should be considered equally relevant for all fish

species. Short-term impacts on special-status fish present in the Project site could occur from the placement of rip-rap, modifications to the existing weir, and other in-water work in support of the bridge replacement. Potentially significant impacts typically associated with these activities are likely limited to the resuspension of benthic sediments and a short-term loss and disruption of access to foraging habitat. In addition, the use of grout under the weir could adversely impact special-status fish by making the water more alkaline, which can damage gills, eyes and skin, or cause mortality. This would be a significant impact. It is anticipated that tides and outflows from the RWF would quickly dissipate the added turbidity plumes. Impacts to marine life would thus be highly localized and temporary. While the likelihood of occurrence for special-status fish species is low, implementation of **Mitigation Measure BIO-1** and **Mitigation Measure BIO-2**, would ensure that no special-status fish species are exposed to the water quality impacts of in-water work. Additionally, as the Project would include more than one acre of soil disturbing activities, a construction general permit and a stormwater pollution prevention plan (SWPPP) would be prepared for the Project. The SWPPP would include specific provisions for erosion control and equipment maintenance to limit the inadvertent delivery of pollutants, including silt and sediment, into the discharge channel. The SWPPP would also contain best management practices designed to control and reduce erosion. In addition, **Mitigation Measure HAZ-1b, Health and Safety Plan**, in Section 2.2.9, *Hazards and Hazardous Materials* of this Initial Study would prevent deleterious materials from entering the environment on the Project site by requiring a site health and safety supervisor present during ground disturbing activities to monitor for evidence of potential soil contamination, and implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. Lastly, **Mitigation Measure HYD-1: Water Quality Best Management Practices During In-water and Near Water Work Activities** and **Mitigation Measure HYD-2: Water Quality Monitoring** in Section 2.2.10, *Hydrology and Water Quality*, would require: in-water work, such as grouting, rip-rap and gravel placement, to be conducted at low tide to the extent feasible; use of underwater grout; prevention of deleterious construction-related materials from entering waters; use of a silt curtain with floating boom downstream of the construction footprint to contain turbidity and any accidental debris discharges, and to exclude fish from the construction area; water quality sampling downstream of the construction footprint; and, guidelines for stopping work for specified exceedances of specific water quality parameters. Implementation of these measures will reduce potential Project-related impacts on special-status fish species to a less-than-significant level.

Mitigation Measure BIO-2: Seasonal Avoidance of Sensitive Aquatic Species.

In-water construction work with the potential to result in short-term impacts to sensitive aquatic species, including project activities that are expected to create turbidity or disturb the streambed, shall be conducted only from June 1 through November 30 (the approved National Oceanic and Atmospheric Administration [NOAA] work window).

Although local dewatering may be necessary for the construction of the vault (pit dewatering with soil grouting to reduce water influx), no impacts are anticipated to fish

or any other biological resources since the water influx removed from the construction pit does not provide special-status fish habitat and would be filtered and subsequently trucked to the Facility's headworks for treatment, if necessary, to avoid impacting channels and waterways (see discussion under criterion a) Accidental Discharges, in Section 2.2.10 *Hydrology and Water Quality*). In addition, no channels or waterways, which could provide habitat to special-status fish species, would be dewatered. The construction pit would also be subject to **Mitigation Measure MMBIO-1: General Construction Measures** in order to appropriately cover the construction pit and prevent special status species from contacting or falling into the pit.

Western Pond Turtle

Western pond turtle is a California Species of Special Concern (SSC) that inhabits a wide variety of water bodies, including ponds, marshes, rivers, streams, and irrigation canals. This species can tolerate full-strength sea water for a short period of time, but normally is found in freshwater. Western pond turtle females migrate away from their water bodies into surrounding uplands, where they construct underground nests and lay eggs from April to August. This species has potential to occur in Coyote Creek and Artesian Slough, primarily north of the Project site, and western pond turtles could use the levees to move overland. However, the nearest record of this species is approximately 2 miles southwest of the Project site in San Tomas Aquino Creek (CDFW 2019a).

The primary construction activity that could significantly impact western pond turtle would be Project-related traffic and heavy equipment on levees, causing direct mortality or injury to this species; however, western pond turtle could also be indirectly impacted by noise, vibration, and increased activity levels associated with grubbing, earth moving, and heavy equipment operation, causing individual turtles to avoid areas they normally use, and could be indirectly impacted by turbidity due to in-water work.

Implementation of **Mitigation Measures BIO-1** and **BIO-3** would reduce potential impacts related to construction to western pond turtle to a less-than-significant level by providing environmental training to construction personnel, providing general protection measures including providing covers or escape ramps in open construction pits, conducting pre-construction surveys, and by monitoring, if necessary, for this species during construction and relocating individuals as authorized.

Mitigation Measure BIO-3: Western Pond Turtle Protection Measures.

- Prior to the start of construction activities, the project proponent shall retain a qualified biologist to conduct preconstruction surveys for western pond turtles in all suitable habitats (aquatic and upland) in the vicinity of the work site. Surveys shall take place no more than 72 hours prior to the onset of site preparation and construction activities with the potential to disturb turtles or their habitat.
- If no western pond turtles are observed during the preconstruction surveys, no further action is required.

- If preconstruction surveys identify active western pond turtle nests within the project site, the biologist shall establish no-disturbance buffer zones around each nest using temporary orange construction fencing. The demarcation shall be permeable to allow young turtles to move away from the nest following hatching. The radius of the buffer zone and the duration of exclusion shall be determined in coordination with the CDFW. The buffer zones and fencing shall remain in place until the young have left the nest, as determined by the qualified biologist.
- If western pond turtle is identified during preconstruction surveys, or during construction, a qualified biologist shall monitor construction activities in the Project site within 50 feet of suitable western pond turtle habitat, and remove and relocate western pond turtles in proposed construction areas to suitable habitat outside the project limits, consistent with CDFW protocols and handling permits. Relocation sites shall be subject to CDFW approval.
- If any turtles are found in the project site, construction activities shall halt within 50 feet and the qualified biologist shall be notified. Construction activities can continue, or commence, more than 50 feet from the western pond turtle individual; however, the qualified biologist shall still be notified. If the biologist determines the turtle is a western pond turtle, the qualified biologist shall relocate the western pond turtle into nearby suitable habitat consistent with CDFW protocols and handling permits.

Tricolored Blackbird, White-tailed Kite, Northern Harrier, Saltmarsh Common Yellowthroat, Alameda Song Sparrow, Black Rail, Ridgway's Rail, and Nesting Birds Protected by the Migratory Bird Treaty Act

Tricolored blackbird is listed as endangered under the California Endangered Species Act (CESA). Northern harrier, Alameda song sparrow, and saltmarsh common yellowthroat are SSCs, and white-tailed kite is designated by CDFW as a State Fully-Protected Species. Black rail is listed as threatened under CESA and is a Fully-Protect Species, and Ridgway's rail is listed as endangered under both the Federal Endangered Species Act (FESA) and CESA and is a state Fully-Protect Species. All are protected by the Federal Migratory Bird Treaty Act (MBTA). Non-ESA-listed birds are also afforded conservation protections. Breeding birds are protected under California Fish and Game Code Section 3503 and raptors are protected under Section 3503.5. In addition, Section 3513 of the Code and the Federal Migratory Bird Treaty Act (16 USC, Sec. 703 Supp. I, 1989) prohibits the killing, possession, or trading of migratory birds. Finally, Section 3800 of the Code prohibits the taking of non-game birds, that are defined as birds occurring naturally in California that are not game birds or fully protected species.

Tricolored blackbird has the potential to occur within Artesian Slough, which contains suitable nesting habitat. The Project site provides suitable foraging habitat for northern harrier and white-tailed kite in the tidal and non-tidal marshes. Nearby powerlines and fencelines provide hunting perches. Although northern harriers nest in marshes, tidal marshlands within 500 feet of the Project site lack substantial vegetative cover and are likely too close to human activity associated with the Facility to serve as suitable nesting

habitat. Trees along the levee could provide nesting habitat for white-tailed kites, but again, are probably too low and close to human activity for white-tailed kites to nest there. Saltmarsh common yellowthroat and Alameda song sparrow have potential to occur within the fresh and saltwater marsh vegetation along Artesian Slough and the outfall channel. More than 90 percent of black rails are located in the marshes of northern San Francisco Bay, primarily San Pablo Bay and Suisun Bay, (Manolis, 1978, and Evens et al., *in* Spautz, et al., 2005); however, they can occur in freshwater and brackish areas of the South Bay. Black rails prefer marshes that are close to water, are large (interior more than 50 meters from edge), away from urban areas, and saline to brackish with a high proportion of pickleweed, maritime bulrush (*Bolboschoenus maritimus*), and gumplant (*Grindelia stricta*), rush (*Juncus* spp.) and cattails (*Typha* spp.) (Spautz et al., 2005). Ridgway's rail preferred habitat is emergent salt and brackish tidal marshlands subject to direct tidal circulation and characterized by predominant coverage of pickleweed and cordgrass (*Spartina* sp.) (Goals Project, 2000). A low-to-moderate potential exists for black rail or Ridgway's rail to nest in marshes in the study area due to the presence of suitable habitat, which is offset by the regular Facility-related disturbance caused by activity on the outfall channel east levee, and the proximity to compost and recycling operations at Zanker Materials Processing Facility and disposal activities at the Zanker Road Landfill, which likely increases predation by non-native animals such as raccoons. Additionally, biologists with expertise in black rail and Ridgway's rail detection conducted a pre-construction survey on July 31, 2018, and biomonitoring during August and September of 2018 for the repair of the Pond A18 levee, including parking at the SO₂ Building and walking along the northern part of the study area to access the Pond A18 levee, and did not observe or hear black rail and Ridgway's rail. It is likely that common species, also subject to provisions of the MBTA, such as house finch and California scrub jay (*Aphelocoma californica*) nest on the Project site.

Impacts could occur to resident and migratory species during Project construction and operation, and during breeding and non-breeding seasons. Equipment staging and Project construction would render the site temporarily unsuitable for breeding birds due to the noise, vibration, and increased activity levels associated with grubbing, earth moving, and heavy equipment operation, even when the nest is unaffected. These activities could subject birds to risk of death or injury, and they are likely to avoid using the area during Project construction. Avoidance, in turn, could cause hunger or stress among individual birds by displacing them into adjacent territories belonging to other individuals. Impacts during the non-breeding season are not considered significant, primarily due to birds' mobility and ability to access other high-quality foraging habitat in the region. The developed nature, and predominance of non-native vegetation and developed infrastructure in the study area renders the temporary habitat loss a minor one. While marsh and adjacent vegetation represent higher quality habitat, comparable alternative breeding and foraging habitat for special-status birds exists nearby; therefore, temporary indirect disturbance to this area also is considered minor.

Implementation of **Mitigation Measure BIO-4** would avoid potential impacts to breeding or nesting birds occurring as a result of staging or construction to a less-than-

significant level by requiring avoidance of construction-related work during the nesting bird season. If avoidance of the nesting season is not possible, then pre-construction nesting bird surveys and establishment of no-construction buffer zones around active bird nests would avoid or minimize the potential for this impact to occur.

Mitigation Measure BIO-4: Special-status Bird Species Protection Measures.

- The project proponent and its contractors shall avoid conducting vegetation removal or ground disturbing activities during the nesting season (February 1–August 31, inclusive).
- If avoidance of the nesting season is not possible, the City’s Environmental Team Project Lead (ET) or its contractor shall retain a qualified wildlife 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, within 7 days prior to the resumption of construction. Surveys shall be performed for the Project areas and for suitable habitat within 300 feet. If an active nest is discovered, 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 flags or fencing that is easily identified by the construction crew and will not affect the nesting birds. In general, minimum buffer zone widths shall be as follows: 100 feet (radius) for non-raptor species and 300 feet (radius) for raptor species; however, the buffer zone widths may be adjusted if an obstruction, such as a building, is within line-of-sight between the nest and construction. Buffer zone widths and other avoidance measures may be modified based on consultation with CDFW and the USFWS. Buffer widths shall remain in place as long as the nest is active or young remain in the area and are dependent on the nest.
- The project proponent and its contractors shall retain a qualified wildlife biologist and conduct surveys for California Ridgway’s rail and California black rail prior to initiation of construction activities. These surveys are required for construction activities conducted at any time of the year.
- If either of these species is detected within 700 feet of the project site during their nesting season (February 1–August 31, inclusive), all construction activities within 500 feet of suitable nesting or forage habitat for this species will be delayed until after the nesting season is over.
- If either of these species is detected within 700 feet of the project site during the non-nesting season (September 1–January 31), construction activities can commence, but all vegetation within suitable habitat for the species shall be cleared by hand or with hand tools and a biologist will be retained on site during vegetation clearing activities to ensure that no birds are injured. Once the construction site is devoid of vegetation providing habitat for the species, regular construction can commence.
- If any birds initiate nests within the established buffer distances while construction is occurring, then it is assumed that they are habituated to the construction activities, and construction can continue as long as the birds or their nests are not physically harmed.

Western Burrowing Owl

Western burrowing owl, a California SSC, 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 western burrowing owls are documented to the south and southwest of the Project area in annual grasslands (CNDDB, 2019).

During reconnaissance surveys, ground squirrels and their burrows were observed along levee edges within the study area. While no signs of western burrowing owls were detected, ground squirrel burrows provide potentially suitable nesting and overwintering habitat within the study area. Project implementation, particularly trenching activities, may result in adverse effects on foraging or breeding western burrowing owls by destroying burrows that are being used by owls. Construction-related traffic along levees could also significantly impact western burrowing owls directly, in the case of vehicle-caused mortality or injury, or indirectly, but causing nesting western burrowing owls to flush, leaving eggs or young vulnerable unprotected or abandoned. The Facility's Capital Improvement Program (CIP) Specifications include Western Burrowing Owl Protection Measures. Implementation of **Mitigation Measure BIO-5** would ensure that potential impacts to western burrowing owl are mitigated to a less-than-significant level by avoiding disturbance to western burrowing owl and any occupied burrows, stopping work and conducting a survey if western burrowing owls are encountered during construction, and providing a protective avoidance buffer if surveys determine presence of western burrowing owl within 250 feet of the project area.

Mitigation Measure BIO-5: Western Burrowing Owl Protection Measures.

To avoid or minimize direct impacts of project activities on western burrowing owls, the City shall ensure the following Capital Improvements Program (CIP) specifications for western burrowing owl are implemented.

1. The contractor shall not disturb western burrowing owls and any occupied burrows or nests.
2. If western burrowing owls are encountered during construction, work must stop, and the Engineer should be notified immediately. A survey must be performed by the qualified biologist before construction work can proceed.
3. If surveys identify evidence of western burrowing owls within 250 feet of the project area, the contractor shall:
 - a. Establish a 250-foot exclusion zone around the occupied burrow or nest, as directed by the qualified biologist
 - b. Avoid the exclusion zone and all nests that could be disturbed by project construction activities during the remainder of the breeding season or while the burrow is occupied by adults or young

- c. Not resume construction activities within the 250-foot zone until the Engineer provides written Notice to Proceed based on the recommendation of the qualified biologist
4. If avoidance of occupied burrows is not feasible during February 1 to August 31 breeding season, construction may occur within 250 feet of the occupied burrows if the burrows are not disturbed and the qualified biologist prepares and implements a Monitoring Plan approved by the California Department of Fish and Wildlife.
5. If avoidance of occupied burrows is not feasible during September 1 to January 31 non-breeding season, construction may occur within 250 feet of the overwintering burrows as long as the contractor's qualified biologist monitors the owls for at least 3 days prior to Project construction and during construction and finds no change in owl foraging behavior in response to construction activities. If there is any change in owl foraging behavior as a result of construction activities, activities shall cease within the 250-foot exclusion zone.

Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew

Salt marsh harvest mouse is listed as endangered under both FESA and CESA and is a state Fully-Protected Species. Their preferred habitat is the middle and upper portions of dense, perennial salt marshes, and they will move into adjacent grasslands in spring and summer when the grasslands provide maximum cover (Goals Project, 2000). They will also use similar habitat in diked wetlands adjacent to the Bay. Recent research has identified salt marsh harvest mouse in marshes dominated by alkali bulrush (*Schoenoplectus maritimus*) (Shellhammer, et al., 2010) and in mixed vegetation not dominated by pickleweed, including Baltic rush (*Juncus balticus*), prickly lettuce (*Lactuca serriola*), and sow thistle (*Sonchus asper*). During high tides, salt marsh harvest mouse will use upland habitats for high tide refugia, as well as cross over levees. In tidal marshes, salt marsh harvest mice are documented to seasonally use grasslands 100 meters from any wetland edge (USFWS, 2013).

Salt marsh wandering shrew is a SSC and is currently confined to small remnant stands of salt marsh found in the South San Francisco Bay, specifically San Mateo, Santa Clara, Alameda and Contra Costa Counties. According to the *Life Histories and Environmental Requirements of Key Plants, Fish, and Wildlife* (Goals Project, 2000), this species appears to have some of the most restrictive food and habitat requirements of any mammal inhabiting the marshes of the greater San Francisco Bay Region, exceeding those of the salt marsh harvest mouse. Suitable habitat includes wet, medium high salt marshes in the six- to eight-foot elevation zone characterized by abundant driftwood and other debris scattered among one- to two-foot high pickleweed (Collins, 1998). They are not known to occur in diked marshes.

Salt marsh harvest mouse has been documented in Triangle Marsh, a brackish marsh 1.3 miles north of the study area (H.T. Harvey, 2006), and New Chicago Marsh, a diked salt marsh immediately west of the study area (CDFW, 2019a). Suitable habitat for salt marsh

harvest mouse is present in the non-tidal marsh east of the outfall channel. While the tidal marsh bordering the edges of a tidal channel west of the outfall channel could support salt marsh harvest mouse, the marsh is less than 50 feet wide in many places and separated from New Chicago marsh by a road and upland habitat, and therefore, provides limited habitat value to the species. Upland habitat adjacent to wetland features in the study area is of low quality, primarily comprising developed areas and ruderal landscape, limiting the value of high tide refugia. Direct impacts that could occur to salt marsh harvest mouse and salt marsh wandering shrew include mortality due to crushing by vehicles, materials staging, heavy equipment or human activity in suitable habitat for these species. Indirect impacts could occur if equipment staging, project construction or human activity render otherwise suitable habitat temporarily unsuitable due to the lack of accessibility or excessive noise, vibration, and increased activity levels associated with grubbing, earth moving, and heavy equipment operation. Any of these would be considered a significant impact.

Implementation of **Mitigation Measures BIO-1** and **BIO-6** would reduce potential impacts related to construction to salt marsh harvest mouse and salt marsh wandering shrew to a less-than-significant level through the following measures: providing environmental training to construction personnel to stop work and contact the qualified biologist if sensitive species is observed in the work area; providing general protection measures including covering or providing escape ramps in open construction pits at the end of the day; conducting pre-construction surveys; installation of wildlife exclusion fencing; presence of a biomonitor during ground disturbing work; avoidance of work during high tides; identification and avoidance of suitable habitat for the species; and where avoidance is not possible, using hand tools to clear marsh vegetation under the supervision of a biologist. In addition, suitable marsh habitat will be protected during work activities by wildlife exclusion fencing, which will separate suitable habitat from adjacent work areas. A biomonitor will check the fence weekly to ensure it is in good condition.

Mitigation Measure BIO-6: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Protection Measures.

- Prior to initiation of work in suitable habitat, an agency-approved⁶ biologist shall be retained to conduct preconstruction surveys areas where disturbance is planned. Surveys shall take place no more than 24 hours before the onset of vegetation removal or ground-disturbing activities.
- Prior to construction on the east side of the outfall channel or Artesian Slough, silt exclusion fencing with wire-mesh backing shall be installed by hand between the eastern edge of the project area and the non-tidal seasonal marsh, to prevent the mouse/shrew from entering the active work area, protect habitat within the marsh from earthmoving activities or accidental spills, and to exclude workers from the marsh. The fence should have a minimum above-ground height of 30 inches, and the bottom should be buried to a depth of at least 6 inches so that mice cannot crawl under the fence. Any supports for the

⁶ The “agency”-approved biologist would be approved by USFWS and CDFW, the federal and state regulatory agencies responsible for implementing endangered species acts, and/or state regulations applicable to Fully-Protected Species.

salt marsh harvest mouse exclusion fencing (e.g., t-posts) will be placed on the inside of the project area. The last 5 feet of the fence shall be angled away from the road to direct wildlife away from the road. Installation of the exclusion fence shall be overseen by an agency-approved biologist.

- An agency-approved biologist shall be present to monitor the fence weekly to assure it remains functional to exclude the mouse/shrew from the work area and will recommend needed fence repairs to the project proponent.
- Ground disturbance to suitable mouse/shrew habitat (including, but not limited to pickleweed, and emergent salt marsh vegetation such as bulrush and cattails) will be avoided to the extent feasible. Where mouse/shrew habitat cannot be avoided, an agency-approved biologist shall supervise the hand removal of any vegetation in mouse/shrew habitat to avoid impacts on the mouse/ shrew. Such monitoring will occur for the duration of all clearing work within suitable habitat.
- If mouse/shrew individuals are observed in or near the Project work area, all construction activities shall cease until the USFWS and CDFW can be contacted and appropriate avoidance, protection, or relocation measures can be developed, approved, and implemented. Depending on the specific location and agency guidance, these measures may include relocation or buffer distances.

Special-Status Plants

Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*) typically occurs in seasonal wetlands with heavy clay, saline, or alkaline soils and in disturbed areas within grasslands. Suitable habitat for Congdon's tarplant exists in upland areas, including along the levees and the bench east of the east levee. The nearest recent occurrence, recorded in 2016, is 0.3 miles away. There is a high potential for this species to occur in the study area. Saline clover (*Trifolium hydrophilum*) occurs in mesic, alkaline soils within open areas in marshes, grassland, and vernal pools. Suitable habitat for saline clover exists in the tidal and non-tidal seasonal marsh east and west of the outfall channel. The nearest recent occurrence, recorded in 2002, is 3 miles away. There is a moderate potential for this species to occur in the study area. Congdon's tarplant has CNPS Rare Plant Rank (CRPR) of 1B.1, and saline clover has a CRPR of 1B.2. The California Native Plant Protection Act directs the California Fish and Game Commission to designate plants as rare and endangered. This Act prohibits take of endangered or rare native plants with some exceptions. Plants with a CRPR of 1.B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1.B have declined significantly over the last century. All of the plants with the California Rare Plant 1.B rank meet the definitions of the CESA. Congdon's tarplant, if present, could be impacted by construction-related vehicular and heavy equipment operation during hauling, stockpiling, equipment staging, or ground disturbance, such as trenching. Saline clover, if present, could be impacted by construction activities in or near wetlands, such as rip-rap placement and wildlife exclusion fencing installation adjacent to the muted marsh east of the channel.

Implementation of **Mitigation Measure BIO-7** would reduce potential impacts to rare plants to a less-than-significant level by requiring a survey to identify any rare plants in

the study area and, if any rare plants are located, establishing a no-disturbance buffer around the plant to protect it from construction-related activity.

Mitigation Measure BIO-7: Survey for Rare Plants.

- Prior to the start of construction, a rare plant survey shall be conducted by a qualified biologist in accordance with CDFW's 2009 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*.
- If a special status plant species is encountered on the project site, it shall be documented and submitted to the CNDDDB. The project shall avoid impacts during construction by clearly marking and delineating the location in the field and encircling the species with protective silt exclusion fencing. Visible signage shall be attached to the silt fencing to instruct workers to stay out of the sensitive rare plant area. If direct impacts cannot be avoided, then the District shall consult with CDFW to devise a plan for minimizing the impacts by one or more of the following methods: (1) salvage and replanting of plants at the same location following construction; (2) salvage and relocation of the plants to a suitable off-site location with long-term assurance of site protection; (3) collection of seeds or other propagules for reintroduction at the site or elsewhere; and (4) payment of fees in lieu of preservation of individual plants, to be used for conservation efforts elsewhere.

- b) **Less than Significant with Mitigation.** This section addresses impacts on riparian habitat, sensitive natural communities, essential fish habitat (EFH), and designated critical habitat. The study area does not include riparian habitat, and therefore, the guidance for riparian projects (summarized under the *Setting* section above) provided in the City's Riparian Corridor Protection and Bird-Safe Design Policy does not apply to this project. Sensitive natural communities, EFH and critical habitat are present, however, and potential impacts to these biological resources are analyzed below.

Sensitive Natural Communities

Sensitive plant communities identified by CDFW on their *California Sensitive Natural Community List* are summarized in **Table 2-5**. Only those Natural Communities with a rarity ranking of S1 to S3, as well as communities considered sensitive as marked with a 'Y' on the *California Sensitive Natural Community List*, are considered sensitive and are listed here.

The *Schoenoplectus (acutus, californicus) Herbaceous Alliance*, which is within the Project site, is not anticipated to be significantly impacted by Project activities, due to the small amount of turbidity, muted tidal action between Artesian Slough and the outfall channel due to the weir, and limited duration and spatial extent of rip-rap placement downstream of the weir. The *Sarcocornia pacifica (Salicornia depressa) Herbaceous Alliance* is outside the Project site. Therefore, none of these sensitive natural communities are expected to be impacted by Project activities. This impact is considered less than significant.

TABLE 2-5
SENSITIVE NATURAL COMMUNITIES WITHIN THE PROJECT AREA

Location	Vegetation Types Present	CDFW California Natural Community	Natural Community Alliance(s) ^a	State Rarity Ranking ^b
Within Project site, along edge of open water in outflow channel	Common bulrush (<i>Schoenoplectus acutus</i>) and broad-leaf cattail (<i>Typha domingensis</i>)	Hardstem and California bulrush marshes	<i>Schoenoplectus (acutus, californicus)</i> Herbaceous Alliance	S3
Within study area adjacent to Project site, east of outflow channel (non-tidal marsh);	Pickleweed (<i>Salicornia pacifica</i>)	Pickleweed mats	<i>Sarcocornia pacifica (Salicornia depressa)</i> Herbaceous Alliance	S3
Within study area adjacent to Project site, west of outflow channel (tidal marsh)	Dominated by pickleweed. Also alkali heath (<i>Frankenia salina</i>), and non-natives, perennial pepperweed (<i>Lepidium latifolium</i>), and rabbitsfoot grass (<i>Polypogon monspeliensis</i>).	Pickleweed mats	<i>Sarcocornia pacifica (Salicornia depressa)</i> Herbaceous Alliance	S3

SOURCES:

^a Sawyer, J., T. Keeler-Wolf, J. M. Evens. 2009. A Manual of California Vegetation. Available: <http://vegetation.cnps.org/>.

^b S1 = **Critically imperiled** in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. S2 = **Imperiled** in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state. S3 = **Vulnerable** in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

Essential Fish Habitat

As discussed above, Essential Fish Habitat (EFH) is present in the study area within Artesian Slough. EFH within the study area is covered under the Pacific Salmon Fisheries Management Plan (FMP) and is designed to protect habitat for commercially-important salmonid species. Sacramento Chinook salmon is the only species that may be seasonally present within the study area.

During in-water construction, effects to EFH may include the temporary impairment of water quality and increased turbidity, coinciding with the disturbance and alteration of slough habitat. These effects are not specific to EFH, rather they would be shared by all aquatic life in the study area. As such, the descriptions of these effects under ***Special Status Fish Species***, are directly applicable to EFH-managed fish species.

While the potential for a significant impact does exist from project construction, the development of an SWPPP in conjunction with **Mitigation Measures BIO-1** and **BIO-2** will ensure that any impacts to EFH are temporary and occur at less than significant levels. **Mitigation Measure BIO-2**, would limit in-water or in-channel work to June 1 to November 30 (the approved NOAA work window), when Chinook salmon are least likely to occur within the study area. As such, impacts from project implementation on EFH are less than significant.

Critical Habitat

Designated critical habitat for steelhead (California Central Coast DPS) and North American green sturgeon (Southern DPS) is present in Artesian Slough, immediately downstream of the existing outfall weir. In-channel work could cause temporary impairment of water quality and increased turbidity, coinciding with the disturbance and alternation of critical habitat. These effects are not specific to critical habitat, rather they would be shared by all aquatic life in the study area. As such, the descriptions of these effects under Impact a, *Special-Status Fish Species*, are directly applicable to critical habitat. All of the impacts discussed above are expected to be temporary, as the majority of the modified outfall bridge and weir structure would fall within the current structural footprint. Thus, project implementation is not expected to result in an adverse modification in aquatic critical habitat.

While the potential for a significant impact does exist from project construction, the implementation of a SWPPP in conjunction with **Mitigation Measure BIO-2** would ensure that any impacts on critical habitat are temporary and occur at less-than-significant levels. Mitigation Measure BIO-2 would limit in-water or in-channel work to June 1 through November 30 (the approved NOAA work window). In addition, **Mitigation Measure HAZ-1b, Health and Safety Plan**, in the Hazardous Materials section of this Initial Study would prevent deleterious materials from entering the environment on the Project site by requiring a site health and safety supervisor present during ground disturbing activities, and capable of implementing procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. As such, impacts from project implementation on critical habitat would be less than significant.

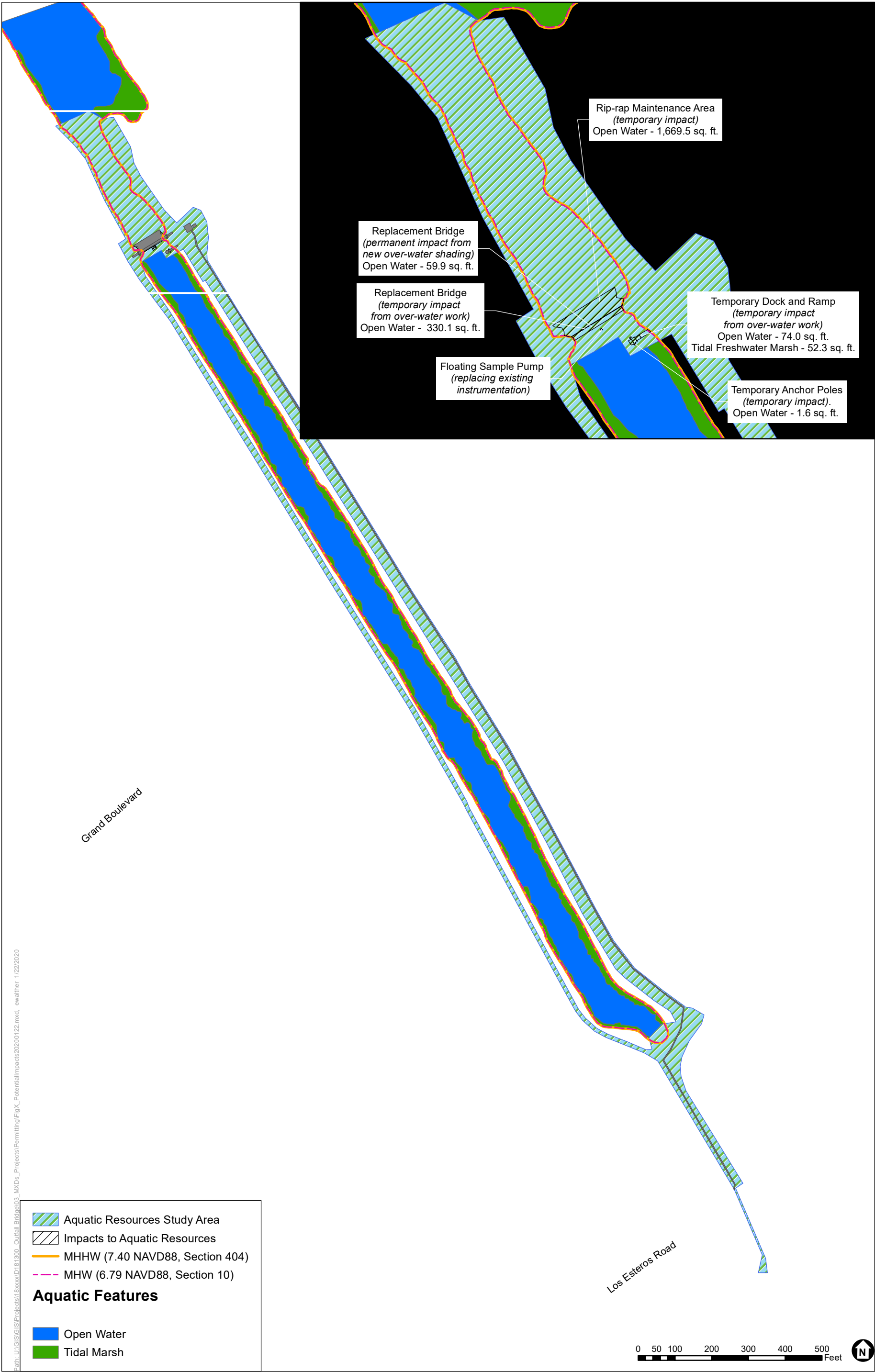
- c) **Less than Significant with Mitigation.** Aquatic resources within the study area that could be impacted by the Project include tidal freshwater marsh and open water (**Figure 2-1** and **Table 2-6**.)

Direct Impacts

Direct permanent impacts to 59.9 square feet (0.001 acres) of open water would occur due to replacement of the existing bridge, which is wider than the existing bridge and would increase shading over open water. However, because the area of shading is minimal relative to the extent of surrounding open water, it is considered a less-than-significant impact.

There would be no direct permanent impacts to tidal freshwater marsh.

Direct temporary impacts to 2,075.2 square feet (0.047 acres) of open water would result from installation of infrastructure that is replacing existing structures, or portions thereof, or are being installed on a temporary basis, including bridge, weir and riprap replacement, and temporary placement of a floating dock and anchor poles. Because it is located directly under the bridge, replacement of the weir flashboards is a temporary impact captured under the temporary impact calculation associated with bridge replacement.



SOURCE: NAIP, 2018; ESA, 2019

San José-Santa Clara RWF Outfall Bridge and Instrumentation Improvements Project

Figure 2-1
Impacts to Aquatic Resources



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Direct temporary impacts to 52.3 square feet (0.001 acres) of tidal freshwater marsh would occur due to installation of the temporary dock access ramp. The majority of the freshwater marsh in the bridge foundation grading area is dominated by hardstem bulrush (*Schoenoplectus californicus*), narrow leaf cattail, and western goldenrod (ESA, 2019). *Typha* is capable of rapidly colonizing habitats due to its robust size, rapid growth rate, and rhizomatic expansion (i.e., allowing lateral, subterranean spread of the plant) (Bansal et al., 2019). Hardstem bulrush and western goldenrod are also rhizomatous, have moderate growth rates and are long-lived (USDA, 2019). The areas of tidal freshwater marsh that would be disturbed by temporary installation of the dock ramp are expected to naturally and rapidly re-vegetate over time due to the growth characteristics of the existing vegetation. Because of this, as well as the very small disturbance area, temporary impacts to tidal freshwater marsh would be less than significant.

Direct temporary and permanent impacts are presented in **Table 2-6**.

TABLE 2-6
TEMPORARY AND PERMANENT IMPACTS TO AQUATIC RESOURCES IN THE PROJECT AREA

Project Component	Temporary Impacts to Open Water (sq ft)	Temporary Impacts to Tidal Freshwater Marsh (sq ft)	Permanent Impacts to Open Water (sq ft)	Permanent Impacts to Tidal Freshwater Marsh (sq ft)
Replacement bridge	330.1	0	59.9 ^a	0
Rip-rap replacement	1,669.5	0	0	0
Dock and ramp	74.0	52.3	0	0
Anchor Poles	1.6	0	0	0
Total Impacts (sq ft)	2,075.2	52.3	59.9	0

^a Temporary impact due to bridge replacement, excluding additional width of new bridge relative to existing bridge

^b Permanent impact due to shading as a result of widening the bridge for the width of the channel underneath the bridge

Indirect Impacts

Installation and removal of the anchor poles by a long-arm excavator would disturb the channel mud, producing a small amount of turbidity relative to the baseline turbidity in the outfall channel, which is subject to tidal action. Installation of the outfall weir aluminum flashboards, replacement of rip-rap downstream of the channel, and removal of water quality monitoring equipment in the outfall pipes by divers could also result in a small amount of turbidity during these activities. This would represent a temporary and insignificant impact to federally protected wetlands and waters due to short duration and minimal potential impact relative to baseline conditions.

Project construction activities occurring outside of federally protected wetlands and waters, such as site grading, fill, and the use of heavy equipment, would generate loose, erodible soils which could result in erosion or siltation into the outfall channel, or result in an accidental release of deleterious materials during construction. Bridge deconstruction could result in demolition debris entering the outfall channel and Artesian Slough. These would

be significant impacts. However, implementation of the project's required SWPPP and **Mitigation Measure HAZ-1b, Health and Safety Plan**, in Section 2.2.9, *Hazards and Hazardous Materials* of the Initial Study would avoid and minimize the potential for soil erosion and accidental release of deleterious materials during construction. In addition, **Mitigation Measure BIO-8: Contain Bridge Deconstruction Debris** would prevent or minimize deconstruction debris from entering the outfall channel and Artesian Slough. Lastly, **Mitigation Measure HYD-1: Water Quality Best Management Practices During In-water and Near Water Work Activities** and **Mitigation Measure HYD-2: Water Quality Monitoring** in Section 2.2.10, *Hydrology and Water Quality*, would require: in-water work with potential to harm fish would be conducted at low tide to the extent feasible; use of underwater grout; prevention of deleterious construction-related materials from entering waters; use of a silt curtain with floating boom downstream of the construction footprint to contain turbidity and any accidental debris discharges, and to deter fish from the construction area; water quality sampling downstream of the construction footprint; and, guidelines for stopping work for specified exceedances of specific water quality parameters. Additionally, to minimize the movement of construction-related turbidity increases into Artesian Slough, temporary measures will be implemented to minimize the volume of direct flow from the outfall channel into the active construction site. Implementation of these measures would reduce potential Project-related impacts to protected wetlands and waters to a less-than-significant level.

Mitigation Measure BIO-8: Contain Bridge Deconstruction Debris.

ET or its contractor shall install measures to prevent debris associated with the deconstruction from entering Artesian Slough.

- No bridge demolition debris shall be allowed to enter Artesian Slough or be placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters. Staged construction materials with the potential to be eroded/entrained during a rainfall event will be covered every night and during any rainfall event.
- Floating booms shall be used to contain any accidental debris discharged into Artesian Slough, and any debris shall be removed as soon as possible, and no later than the end of each workday. If feasible, personnel in workboats within the work area will immediately retrieve such debris for proper handling and disposal. Non-buoyant debris discharged into waters shall be recovered as soon as possible after discharge.
- Accidental debris discharged into the outfall channel will be collected at the weir at the downstream terminus of the channel. No debris discharged into the outfall channel will be allowed to enter Artesian Slough.

- d) **Less than Significant Impact.** The project area is located within the Pacific Flyway along the southern shoreline of San Francisco Bay. Although exact migratory corridors in the vicinity of the project area are unknown, it can be assumed that native avian species pass overhead during spring and fall migrations. In addition, the tidal freshwater marsh and open water found within and adjacent to the Project site provide movement corridors for native wildlife such as salt marsh harvest mouse, California vole (*Microtus*

californicus), longfin smelt, northern harrier and white-tailed kite to travel between larger areas of open space and water, which support foraging, breeding, and juvenile dispersal. During construction, birds will continue to fly over or around the Project area, and small mammals are currently very unlikely to cross the outfall channel and Slough, so the small project footprint surrounding these features will have little effect on their movements.

The movement of special status fish is not expected to be hindered through project construction. The study area does not occur within known migratory routes for anadromous fish species (i.e., no freshwater spawning habitat is accessible through Artesian Slough. Additionally, the modified outfall weir and bridge are not expected create additional barriers to fish species within the study area. While access may be restricted to the outfall channel with the installation of flashboards at the weir, special status fish species are not known to utilize this habitat. All currently accessible habitat within Artesian Slough will remain accessible to fish upon project completion. Lastly, per Mitigation Measure BIO-2, all in-water work would occur outside of the migratory windows for special status fish species. Thus, project construction would have a less than significant effect on the movement of special status fish species.

In addition, the Project is small in size relative to surrounding open space and water, which would continue to provide movement corridors for native wildlife, and project construction is expected to last a relatively short duration of 6 months. From a Project operations standpoint, four LED floodlight fixtures, or low handrail lights, would be installed on the new outfall channel bridge. This relatively small amount of lighting would be designed to minimize glare outside of the work area during water monitoring and is not expected to significantly impact the behavior of migrating birds relative to existing lighting on the bridge. In addition, the project would follow the guidelines for bird-safe design as outlined in the City's Riparian Corridor Protection and Bird-Safe Design Policy (summarized under the *Setting* section). No known wildlife nursery site occurs on or adjacent to the project site. Therefore, the Project would not substantially interfere with the movement of any resident species or impede the use of native wildlife nursery sites.

- e) **Less than Significant Impact.** According to the City of San José Tree Ordinance, for industrial properties, a permit is required for the removal of trees of any size. There would be no removal or trimming of protected trees as a result of the proposed Project, thus, the Project would not conflict with the City of San José Tree Ordinance.

Project components that are relevant to the building design guidance under the Riparian Corridor Protection and Bird-Safe Design Policy 6-34 include the installation of the pedestrian bridge and the LED floodlights (which would be on all the time during night hours to provide safe operator access to the bridge). The new aluminum pedestrian bridge would be composed of aluminum members, which may reflect sunlight when new, but this effect would diminish approximately within a year as the metal develops an aluminum oxide skin. New permanent lighting would be brighter than existing conditions to adequately accommodate Facility staff. As required by the Riparian Corridor and Bird-Safe Design Policy, new lighting would avoid or minimize up-lighting or spotlights and

would include shields on lights such that they can still provide adequate lighting for workers conducting night sampling but also minimize light visible to birds and would be designed to minimize glare outside of the work area. All temporary construction lighting would include lights that are designed with low light spillover, also utilizing shields or other light pollution reduction features.

The Envision San José 2040 General Plan includes several goals and policies regarding sensitive natural communities and habitats, and special-status plants and wildlife.

Table 2-7 lists goals and policies relevant to the Project and the associated mitigation measure that assures consistency with these goals and policies; thus, the Project does not conflict with local policies or ordinances protecting biological resources, and impacts would be less than significant.

TABLE 2-7
ENVISION SAN JOSÉ 2040 GENERAL PLAN GOALS AND POLICIES PERTAINING TO THE PROJECT AND ASSOCIATED POLICIES AND RELEVANT MITIGATION MEASURES INCLUDED IN THIS IS/MND

Relevant Goals, Policies and Actions^a	Description	Project Mitigation Measure
Environmental Resource Action ER-4.4	Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species.	Mitigation Measures BIO-1: General Construction Measures; BIO-2: Seasonal Avoidance of Sensitive Aquatic Species; BIO-3: Western Pond Turtle Protection Measures; BIO-4: Special-Status Bird Species Protection Measures; BIO-5: Western Burrowing Owl Protection Measures; BIO-6: Salt Marsh Harvest mouse and Salt marsh Wandering Shrew Protection Measures; BIO-7: Survey for Rare Plants
Environmental Resource Action ER-4.5	For impacts to western burrowing owl habitat occupied by breeding owls in 2008 or later, provide mitigation of equivalent value shall consist of securing, protecting and managing nesting and foraging habitat in perpetuity for western burrowing owls within the South Bay area such that there is no reduction in the local western burrowing owl population. Mitigation shall be required for the largest number of breeding western burrowing owls that have been identified nesting or foraging on a site in western burrowing owl surveys since 2008. These measures are required to be implemented by individual projects unless the City develops an independent plan or participates in a regional conservation strategy (such as the Santa Clara Valley HCP) that would maintain or increase South Bay area western burrowing owl populations.	Mitigation Measure BIO-5: Western Burrowing Owl Protection Measures.
Environmental Resource Goal ER-5	Protect migratory birds from injury or mortality.	Mitigation Measure BIO-4: Special-status Bird Species Protection Measures.
Environmental Resource Policy ER-5.1	Avoid implementing activities that result in the loss of active native birds' nests, including both direct loss and indirect loss through abandonment, of native birds. Avoidance of activities that could result in impacts to nests during the breeding season or maintenance of buffers between such activities and active nests would avoid such impacts.	Mitigation Measure BIO-4: Special-status Bird Species Protection Measures.

TABLE 2-7 (CONTINUED)
ENVISION SAN JOSÉ 2040 GENERAL PLAN GOALS AND POLICIES PERTAINING TO THE PROJECT AND ASSOCIATED POLICIES AND RELEVANT MITIGATION MEASURES INCLUDED IN THIS IS/MND

Relevant Goals, Policies and Actions^a	Description	Project Mitigation Measure
Environmental Resource Policy ER-5.2	Require that development projects incorporate measures to avoid impacts to nesting migratory birds.	Mitigation Measure BIO-4: Special-status Bird Species Protection Measures.
Environmental Resource Action ER-7.1	In the area north of Highway 237 design and construct buildings and structures using bird-friendly design and practices to reduce the potential for bird strikes for species associated with the baylands or the riparian habitats of lower Coyote Creek.	N/A
Environmental Resource Action ER-9	Protect water resources because they are vital to the ecological and economic health of the region and its residents.	Mitigation Measure BIO-1: General Construction Measures

SOURCES:

^a City of San José, 2011. Envision San José 2040 General Plan. Accessed November 5, 2019. Available online: www.sanJoseca.gov/index.aspx?NID=1737.

- f) **No Impact.** The Project does not conflict with an approved local, regional, or state habitat conservation plan. The nearest habitat conservation plan and natural community conservation plan is the Santa Clara Valley Habitat Conservation Plan /Natural Community Conservation Plan (HCP/NCCP), and it does not cover the study area.

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2.2.5 Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
V. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

ESA completed a cultural resources study to comply with the State requirements of the California Environmental Quality Act (CEQA) (Koenig, 2019) (**Appendix D**). The Project may also be required to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, for federal permits and/or funding; therefore, the study also complies with Section 106. According to federal guidelines, the Project Area of Potential Effects (APE) is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 CFR 800.16[d]). The APE is the area, surface and subsurface, that could experience ground disturbance as a result of Project activities, including construction areas, staging areas, and work areas. The APE and the CEQA Project Area are synonymous.

Architectural Resources

In 2016, ESA architectural historians recommended a historic district eligible for listing in the California Register of Historical Resources (California Register) and National Register of Historic Places (National Register)—the *San José-Santa Clara Regional Wastewater Facility Streamline Moderne Industrial Historic District* (Brennan et al., 2016). The District encompasses approximately seven acres on the north-central portion of the San José-Santa Clara Regional Wastewater Facility (Facility) and includes 11 contributing buildings and structures that were built between 1956 and circa 1963, representing the first phases of construction at the Facility. The contributing elements share a common history, in that they represent the first phases of development of the San José Wastewater Treatment Plant (Plant), as it was then called. The Plant was completed in 1956 and initially expanded by circa 1963 and was designed primarily to address the region's fruit cannery waste during the peak canning season. The contributory elements are also architecturally united by use of the Streamline Moderne style, in varying degrees of elaboration, representing the 1956-era construction, and some with additions in the International Modern style, representing the 1963-era expansion. The *San José-Santa Clara Regional Wastewater Facility Streamline Moderne Industrial Historic District* was evaluated in accordance with the California and National Register evaluation Criteria 1–4/A–D. The District appears significant under Criteria 1/A and 3/C, at the local level.

The buildings and structures that represent later expansions of the Facility to accommodate stricter pollution control legislation and increased wastewater flow from growing urban development were considered non-contributing elements. This includes the existing outfall, which was constructed in 1969, and is outside of the period of significance for the District evaluation. The outfall was originally constructed as a concrete and wood weir/dam structure as part of a Facility improvement project in 1969. In 1989, the existing wooden footbridge was constructed; the bridge has been repaired numerous times. The footbridge is approximately 65 feet long with a deck elevation of 8 feet, supported by 4 by 4-inch wooden columns bolted through the weir. In 2016, the footbridge was leaning, and additional timber supports were mounted between the deck and weir foundation (AECOM, 2018).

Archaeological Resources and Human Remains

To determine the archaeological sensitivity of the Project site, ESA completed a cultural resources study for the Capital Improvements Program (Brennan et al., 2016), which included the Project site, and provided background research, a surface survey, and an analysis of the potential for cultural resources to be present in the Facility. ESA completed a records search for the entire Facility and general vicinity (approximately a one to two-mile radius outside of the fenced operations area) at the Northwest Information Center (NWIC) of the California Historical Resources Information System on August 1, 2011 (File No. 11-0118). ESA updated the records search for various projects within the Facility, including on February 12, 2015 (File No. 14-4014) and May 11, 2016 (File No. 15-1655), and most recently on October 18, 2019 (File No. 19-0671). Previous surveys, studies, and archaeological site records for the Project area and vicinity were accessed. Records were also reviewed 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, the 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 Facility and in the general vicinity; (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.

Prehistoric site CA-SCL-528, which is the only archaeological resource in the vicinity not along the Guadalupe River, is approximately 0.7 mile southeast of the Project site. Several other archaeological resources have been recorded on the Guadalupe River, more than 1 mile southwest of the Project site. All of these resources are prehistoric occupation sites with midden soils, fire-affected rock, faunal remains, and/or lithic artifacts. At least two of the resources are known to contain human burials.

ESA conducted a surface survey of the Project site for the Capital Improvement Program on April 26, 2016 (Koenig, 2019). The survey was completed using 10- to 20-meter-wide zigzag transects; a windshield survey was completed along the access roads. No archaeological resources, including midden soil, shell fragments, or other evidence of past human use, were identified in the Project site.

The Project vicinity has been greatly altered over past 100 years through the construction of engineered channels and a network of flood control levees. The underlying geology in the Project site consists of approximately 10 feet of artificially-placed fill over San Francisco Bay Mud, which has low to very low potential for containing buried archaeological sites. Given the environmental context of the Project site, distance from the historic terrestrial land surface, as well as previous disturbance from construction of the existing bridge and outfall, the archaeological sensitivity of the Project site for prehistoric archaeological resources is considered to be low.

Discussion

- a) **Less than Significant 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.

ESA has recorded and evaluated a historic district, the *San José-Santa Clara Regional Wastewater Facility Streamline Moderne Industrial Historic District*, within the Facility. The outfall weir structure was originally constructed in 1969, and the existing wooden bridge was constructed in 1989. Both structures have been modified. Although the outfall bridge and weir are near the Historic District and part of the Regional Water Facility, the structures do not contribute to the District and do not qualify as individually eligible for listing on the local (City of San José) Historic Resources Inventory or in the California and National Registers. The structures are not associated with persons significant in the local history of the Facility or the region, nor do they represent a distinguishable architectural style or method of construction. The Project would not cause a direct or indirect adverse effect to the District. The Project would not cause impacts to historical resources, and no mitigation would be required.

- b) **Less than Significant with Mitigation.** This section discusses archaeological resources, both as historical resources, as defined in Section 15064.5(a) of the CEQA Guidelines, as well as unique archaeological resources as defined in Section 21083.2(g) of the California Public Resources Code (PRC).

Based on the analysis provided above, the Project has a low potential to uncover archaeological resources. While unlikely, given the general sensitivity of the Project vicinity, the inadvertent discovery of redeposited archaeological resources cannot be entirely discounted, including in areas of artificial fill. Therefore, impacts to archaeological resources would be potentially significant. In the event that archaeological

resources are encountered during ground disturbing activities, the following mitigation measures would reduce impacts to a less-than-significant level.

Mitigation Measure CUL-1.1: Inadvertent Discovery of Archaeological Resources.

If prehistoric or historic-era archaeological resources are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the ET personnel and Planning, Building and Code Enforcement (PBCE) Supervising Environmental Planner. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

The City’s ET or its contractor shall retain a Secretary of the Interior-qualified archaeologist to inspect the resource within 24 hours of discovery. If it is determined that the project could damage a historical resource as defined by CEQA, construction shall cease in an area determined by the archaeologist until a mitigation plan has been prepared, approved by the PBCE Supervising Environmental Planner, and implemented to the satisfaction of the archaeologist (and Native American representative if the resource is prehistoric, who will be identified by the Native American Heritage Commission [NAHC]). If the Native American representative identifies the find as a tribal resource, ET or its contractor shall proceed to **Mitigation Measure CUL-1.2**. For archaeological resources, the archaeologist, in consultation with the PBCE Supervising Environmental Planner and the City’s Historic Preservation Officer, shall determine when construction can commence.

The mitigation for archaeological resources shall include preservation in place, or, if preservation in place is not feasible, data recovery through excavation. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding resource site into a permanent conservation easement. If preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to the satisfaction of the PBCE Supervising Environmental Planner to recover the scientifically consequential information from and about the resource, prior to any excavation at the resource site. Treatment for most resources would consist of (but would not necessarily be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved

facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

Mitigation Measure CUL-1.2: Inadvertent Discovery of Tribal Cultural Resources.

The Native American representative shall make recommendations to the City of San José for the appropriate measures to treat the tribal cultural resource, which will be implemented in accordance with Section 15064.5 of the CEQA Guidelines.

Section 2.2.18 has a detailed discussion of tribal cultural resources.

- c) **Less than Significant with Mitigation.** There is no indication that the Project site has been used for burial purposes in the recent or distant past. While unlikely, the inadvertent discovery of redeposited human remains cannot be entirely discounted, including in areas of artificial fill. Impacts to human remains would be potentially significant. In the event that human remains are encountered during ground disturbing activities, the following mitigation measure would reduce impacts to a less-than-significant level.

Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains.

If human remains are encountered by construction personnel during project implementation, all construction activities within 100 feet shall halt and the contractor shall notify the PBCE Supervising Environmental Planner. The ET shall contact the Santa Clara County Coroner to determine whether the remains are of Native American origin or whether an investigation into the cause of death is required. The Native American Heritage Commission (NAHC) would be contacted within 24 hours if the Coroner determines that the remains are Native American. The NAHC would then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn shall make recommendations to the City of San José for the appropriate means of treating the human remains and any associated funerary objects, which shall be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines. Specific requirements of the CEQA Guidelines are summarized below:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
 - (B) If the coroner determines the remains to be Native American:
 1. The coroner shall contact the Native American Heritage Commission within 24 hours.

2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or
- (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
- (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - (B) The descendant identified fails to make a recommendation; or
 - (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

References

AECOM, *CIP Program Condition Assessment Report Outfall Bridge and Levee Improvement – Service Order Task 2*. Prepared for the City of San José, June 2018.

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Koenig, Heidi, *Cultural Resources Study for the San José / Santa Clara Regional Wastewater Facility Outfall Bridge and Instrumentation Improvements Project*. Prepared for the City of San José, August 2019.

2.2.6 Energy

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
VI. ENERGY — Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Electricity is provided to the project site by the Pacific Gas and Electric Company (PG&E). PG&E provides service to approximately 13 million people throughout a 70,000 square mile service area in Northern and Central California. PG&E produces and purchases energy from a mix of conventional and renewable generating sources, which travel through its electric transmission and distribution systems to reach customers.

The Facility's cogeneration system produces electricity for electric equipment as well as heat that is recovered and used for the digesters. The system includes engine-generator sets and one Fuel Cell that can supply 1,400 kW. Combined, the engine-generators are capable of producing approximately 12 MW of electricity. Normally, the engine-generator sets meet the full electricity demand at the Facility. This is typically accomplished by using one or two 800 kW engine-generator sets, one 1,750 kW set, and two 2,800 kW sets, resulting in a total output of approximately 8,000 kW (one or two units are typically on standby). The imported electricity is provided by PG&E via two 115 kilovolt (kV) overhead power lines, which bisect Pond A18 in a north-to-south manner and connect to two 115 kV substations within the Facility (City of San José, 2013).

The City of San José, as part of its Envision San José 2040 General Plan, includes Goal MS-14 – Reduce Consumption and Increase Efficiency, which would reduce per capita energy consumption by at least 50 percent compared to 2008 levels by 2022 and maintain or reduce net aggregate energy consumption levels equivalent to the 2022 (Green Vision) level through 2040 (City of San José, 2011) through specific policies and actions, which would reduce consumption and increase efficiency.

Discussion

- a), b) **Less than Significant Impact.** Both construction and operation of the Project would involve expenditure of energy.

Construction

Construction activities associated with the Project would include activities that involve the use of heavy machinery. Construction energy use would include both direct and indirect uses of energy. Direct energy use would include the consumption of fuel (typically gasoline and diesel fuel) for operation of construction equipment and delivery

and worker vehicles. Energy in the form of electricity may also be consumed by some pieces of construction equipment, such as welding machines, power tools, and lighting; however, the amount of consumed electricity would be relatively minimal. Indirect energy use includes the energy required to make the materials and components used in construction. This includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing. Direct energy represents about one-quarter of total construction-related consumption while indirect energy use typically represents the remaining three-quarters (Hannon, 1978).

The CEQA checklist focusses on the efficient use of energy as opposed to a quantification of the actual amount of energy consumed to evaluate impacts. Construction associated with the Project is expected to last six months with approximately 131 working days. Construction activities would include use of heavy-duty construction equipment including excavators, pumps, off-highway trucks, backhoes, rollers and cranes. Heavy equipment typically consumes diesel fuel. Additionally, offsite vehicles would be required to transport equipment, materials, and workers to the Project site during construction. Construction activities would at the most generate 50 one-way worker commute trips (for a maximum of 25 workers) per day. In addition, infill and off-haul is expected to generate approximately 3,600 truck trips over the six-month construction period. Haul trucks would be diesel-fueled, while the majority of worker trips are anticipated to utilize gasoline.

For a Project of this scope and size, consumption of fuel energy resulting from short-term construction activities would be temporary, localized, and would not represent a significant amount of fuel in comparison to the 685 million gallons of gasoline and 36 million gallons of diesel that were sold in Santa Clara County in 2017 (CEC, 2018). Vehicles used for Project construction and operation would be required to comply with all federal and state efficiency standards. Additionally, there are no Project characteristics or features that would be inefficient or that would result in the use of equipment and vehicles in a manner that would be less energy efficient than similar projects.

Fuel use for the Project would be consistent with typical construction and manufacturing practices, and energy standards such as the Energy Policy Acts of 1975 and 2005, and Title 24, which promote strategic planning and building standards that reduce consumption of fossil fuels, increase use of renewable resources, and enhance energy efficiency. Project construction would comply with all applicable standards and would therefore not require excessive or wasteful use of energy. Further, the energy consumption during construction would not result in long-term depletion of non-renewable energy resources and would not permanently increase reliance on energy resources that are not renewable. Construction activities would not reduce or interrupt existing electrical or natural gas services due to insufficient supply and would therefore not be expected to have a material effect on energy resources. Project construction energy would not be considered wasteful, inefficient, and unnecessary as implementation of the Project will fulfill a need to replace aging infrastructure to enable Facility staff to maintain compliance with reporting on the measurements taken and the continuous

monitoring of the effluent leaving the Facility. In addition, implementation of the City's standard permit conditions which include the Bay Area Air Quality Management District's basic mitigation measure, as described in Section 2.2.3, Air Quality, would reduce the amount of fuel energy consumed during the construction phase of the project by limiting unnecessary idling and through proper operation and maintenance of equipment. Therefore, energy use associated with Project construction activities would not be considered wasteful or unnecessary and would not conflict with any renewable energy or energy efficiency standards. This would be a less than significant impact.

Operation

Once operational, the Project would not increase energy use over existing conditions. In fact, there could be a reduction in energy use due to increased efficiencies in the new equipment and fewer maintenance trips required. As the Project would not increase energy use over existing conditions, it would not conflict with the goals and policies of the City's General Plan, particularly goals related to reducing energy consumption (Goal MS-14). The Project would adhere to all applicable industry standards, plans, and policies that promote energy conservation during construction and operation. Replacing old equipment with newer equipment would reduce operational inefficiencies and optimize energy consumption. Therefore, the Project's energy use during construction and operation would constitute a less than significant impact.

References

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2.2.7 Geology and Soils

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
VII. GEOLOGY AND SOILS — Would the project:				
a) Directly or indirectly cause 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Project area is located near the southern end of the San Francisco Bay, which is within the geologically complex California Coast Ranges geomorphic province.^{7,8} 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 Hayward fault systems (CGS, 2002).

Based on geologic mapping by Dibblee and Minch (2005), the Project site is located on Holocene-age Bay Mud at the surface. According to boring logs from the geotechnical

⁷ 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.

⁸ California Geological Survey. *California's Geomorphic Provinces*, CGS Note 36, 2002.

investigation by AECOM, the first ten feet of material underlying the Project site is levee fill, consisting of soft-to-medium dense lean clays and poorly graded gravel. Young Bay Mud was encountered from 14 to 31 feet below ground surface (bgs) and Pleistocene-age Old Bay Mud beneath that to approximately 44 feet bgs (AECOM, 2018) (**Appendix E**).

Fault Rupture

While this region of California is seismically active, there are no active faults that cross the study area (**Table 2-8**). Although the Silver Creek Fault is mapped at the Project site, it is not considered to be active.

TABLE 2-8
FAULTS IN PROXIMITY TO THE STUDY AREA

Fault Name	Approximate Distance (miles) from Study Area	Activity Classification	Approximate Maximum Earthquake Magnitude
Silver Creek	0.1	Potentially Active (Quaternary)	6.9
Hayward fault zone (Southern Hayward Section)	3.5	Active (Historic)	7.3
San José	5.1	Potentially Active (Quaternary)	6.8
Calaveras	8.1	Active (Holocene)	7.25
Monte Vista-Shannon	9.9	Active (Holocene)	7.1
San Andreas fault zone	14.0	Active (Historic)	7.9
Greenville	22.4	Active (Holocene)	7.2

* The moment magnitude (M_W) of an earthquake is the measure of the total energy expended during an earthquake; it is used here in place of the local magnitude (M_L) (i.e., the Richter magnitude scale), as local magnitude is an inaccurate measure of large earthquakes (USGS, 2018b).

SOURCE: AECOM, 2018; CGS, 2010

Ground Shaking

The Project area lies within a region of California that contains many active and potentially active faults and is considered an area of high seismic activity. In 2015, the 2014 Working Group on California Earthquake Probabilities presented the third Uniform California Earthquake Rupture Forecast (UCERF3). According to this report, there is a 62 percent probability of a magnitude (M_W) 6.7 earthquake in the San Francisco Bay Area, and a 98 percent probability of a M_W 6.7 or greater earthquake in the Northern California Region by the year 2045 (Field et al., 2015).

According to the ShakeMap that corresponds with the earthquake planning scenario generated by the United States Geological Survey (USGS), if a M_W 6.8 event were to occur on the Southern Hayward section of the Hayward fault zone, the study area may experience very strong to severe ground shaking with moderate to heavy damage expected (USGS, 2016).

Liquefaction

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid, potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

The geotechnical investigation indicates the soils beneath the Project site have a high potential for liquefaction during a major earthquake (AECOM, 2018). The CGS published a composite map of the Milpitas Quadrangle overlain with Alquist-Priolo Earthquake Fault Zones and Seismic Hazard Zones (i.e., liquefaction and earthquake-induced landslides). The map indicates the Project site is within a Liquefaction Zone (CGS, 2004).

The Envision San José 2040 General Plan provides planning guidance for projects within the city of San José. Specific to geology and soil hazards, the General Plan contains the following policies:

Policy EC-4.5: Ensure that any development activity that requires grading does not impact adjacent properties, local creek, and storm drainage systems by designing and building the site to drain properly and minimize erosion. An Erosion Control Plan is required for all private development projects that have a soil disturbance of one acre or more, are adjacent to a creek/river, and/or are located in hillside areas. Erosion Control Plans are also required for any grading occurring between October 1 and April 15.

Policy EC-4.11: Require the preparation of geotechnical and geological investigation reports for projects within areas subject to soils and geologic hazards, and require review and implementation of mitigation measures as part of the project approval process.

Policy EC-4.12: Require review and approval of grading plans and erosion control plans (if applicable) prior to issuance of a grading permit by the Director of Public Works

Discussion

- a.i) **No Impact.** The Project is not located in Zone of Required Investigation as delineated on an Alquist-Priolo Earthquake Fault Zoning Map. There are active faults in the surrounding area, the closest being the Hayward Fault approximately 3.5 miles to the east (AECOM, 2018).

Although the Silver Creek Fault is within 0.1 mile of the Project site, it is not considered to be active (refer to AECOM, 2018), and the probability of rupture on the fault is remote. The potential for rupture of an unknown fault on site is also remote. Construction and operation of the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Therefore, there would be no impact.

- a.ii) **Less than Significant Impact.** Strong seismic ground shaking could occur in the study area because there are active fault zones near the Project site. While the Project would be located in a seismically active area, the Project components would not be used for human occupancy, nor would any Project component exacerbate the existing risk of seismic shaking or associated damage. All Project components would be designed and constructed consistent with applicable sections of the California Building Code (CBC). Based on the characteristics of underlying materials described in the Setting, the preliminary geotechnical investigation conducted for the Project identified the extent of settlement that could occur at the site during a large earthquake and provided feasible engineering recommendations to remedy potentially adverse soil and seismic conditions, in addition to providing the necessary soil and foundation information required by the structural engineer designing the structures. The geotechnical investigation recommendations include deep foundations (piers) and soil improvement (AECOM, 2018). Project components would also be constructed following the seismic design parameters detailed in the geotechnical investigation memorandum for the Project area and would be implemented to minimize any adverse effects associated with seismic ground shaking. Compliance with all the applicable design parameters within the CBC and the geotechnical investigation would reduce the impacts associated with seismic ground shaking to less than significant levels.
- a.iii) **Less than Significant Impact.** As noted above, the Project would be designed consistent with the applicable sections of the CBC and the seismic design parameters detailed in the geotechnical investigation (AECOM, 2018), which would also reduce the risk from seismically-induced ground failures.

The geotechnical investigation indicates the soils beneath the Project site have a high potential for liquefaction during a major earthquake (AECOM, 2018). The CGS published a composite map of the Milpitas Quadrangle overlain with Alquist-Priolo Earthquake Fault Zones and Seismic Hazard Zones (i.e., liquefaction and earthquake-induced landslides). The map indicates the Project site is within a Liquefaction Zone (CGS, 2004).

The geotechnical investigation provides foundation design and recommendations to address the potential impacts related to liquefaction. As discussed above in item a.ii), Project components would be designed and constructed in accordance with the seismic design parameters detailed in the site-specific geotechnical investigation. Implementation of these recommendations would reduce liquefaction related impacts at the Project site to less than significant.

- a.iv) **No Impact.** Due to the relatively flat terrane surrounding the area, the potential for landslides as a result of earthquakes is considered low. According to the Landside Inventory Map of the Milpitas Quadrangle (Weigers, 2011), the Project site is not in an area that is mapped as having historic landslide movement, or where conditions indicate the potential for landslides. Therefore, there would be no impact.
- b) **Less than Significant Impact.** Project construction would involve ground-disturbance including earthmoving, trenching, and grading. These activities would increase the susceptibility of sediments on the Project site to erosion by wind or water. Due to the Project location (a levee in San Francisco Bay), there is no topsoil onsite. If not controlled and managed, erosion and sedimentation caused by the Project could be significant. However, as discussed in Section 2.2.10, *Hydrology and Water Quality*, a Storm Water Pollution Prevention Plan (SWPPP) would be developed and implemented as part of the Project in accordance with the NPDES General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities. The SWPPP would include best management practices (BMPs) designed to control and reduce erosion. These measures would generally consist of silt fences, straw wattles, and gravel bags. The implementation of these erosion control measures would reduce construction impacts to less-than-significant levels.

Once operational, the Project components would include mostly paved surfaces (the fill to expand the vehicle turnaround at the SO₂ building would be a gravel surface), which would not be subject to substantial erosion or topsoil loss, and there would be no excavation or grading associated with Project operations. Therefore, operational impacts are considered less than significant.

- c) **Less than Significant Impact.** The potential for seismic-related ground failure, including liquefaction and landslides for the Project, are discussed above under a.iii) and a.iv). As discussed in Question a.i), the Project area is not located in an area mapped as having historic landslide movement, or where conditions indicate a potential to experience landslides. Therefore, Project activities would not result in any on- or off- site landslides. The geotechnical investigation by AECOM identifies liquefaction risk at the Project site, and based on the results of that investigation, it provides structural design requirements and recommendations to avoid damage related to liquefaction. Additionally, all Project components would be designed and constructed consistent with applicable sections of the CBC, which includes requirements and guidelines to protect against liquefaction, lateral spreading, and soil collapse. Subsidence is generally associated with groundwater withdrawal; as the Project would include negligible groundwater withdrawal associated with dewatering for the construction of the vault at the daylight station, there would be little risk of subsidence as a result of Project implementation. Lateral spreading could occur during construction excavation if a liquefiable layer is present in the subsurface; however, graded areas would be required to comply with California Occupational Safety and Health (Cal/OSHA) Excavation and Trenching standards regulations, which would limit the potential for lateral spreading by sloping and shoring excavated areas. There would be no excavation activity during Project operations, and the Project structures

- would not result in newly concentrated stormwater runoff. The Project would not use groundwater during operations, and adherence to state standards and standard engineering and construction techniques and recommendations from the geotechnical investigation would reduce impacts related to unstable soils to less than significant.
- d) **Less than Significant Impact.** According to available data from the Natural Resources Conservation Service (NRCS) Web Soil Survey, the soil expansion potential is considered moderate (NRCS, 2018). As stated above, the Project would be designed consistent with the applicable sections of the CBC, which include requirements that address the expansion potential of soils. Adherence to the design requirements provided by the CBC would ensure impacts related to expansive soils at the Project site would be less than significant.
- 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.
- f) **Less than Significant Impact.** A significant impact would occur if a project would destroy a unique paleontological resource or site, or a unique geologic feature. Paleontological resources are the fossilized evidence of past life found in the geologic record. Despite the tremendous volume of sedimentary rock deposits preserved worldwide, and the enormous number of organisms that have lived through time, preservation of plant or animal remains as fossils is an extremely rare occurrence. Because of the infrequency of fossil preservation, fossils—particularly vertebrate fossils—are considered to be nonrenewable resources. Because of their rarity, and the scientific information they can provide, fossils are highly significant records of ancient life.

The Project area overlies artificial fill and young Holocene-age geologic units (AECOM, 2018). The deepest planned excavation is anticipated to reach 26-inches deep for the fiber optic cables and would generally occur within previously disturbed or recently-deposited sediments. The concrete piles would reach to approximately 88 feet, but as there would be no return of material, there would be no chance to recover any resources at that depth. The impact to paleontological resources or unique geologic features would be less than significant.

References

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- California Geological Survey (CGS), 2004. Earthquake Zones of Required Investigation, Milpitas Quadrangle. California Geological Survey. Map. Scale 1:24,000.
- CGS, 2010. Fault Activity Map of California. California Geological Survey.
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- Wagner, D.L., Bortugno, E.J., and McJunkin, R.D. (Wagner et al.), 1991. Geological Map of the San Francisco-San José Quadrangle, California, 1: 250,000. California Geological Survey. Map. Scale 1:250,000.
- Wieggers, Mark O., (Wieggers), 2011. Landslide Inventory Map of the Milpitas Quadrangle, Alameda and Santa Clara Counties, California. California Geological Survey. Map. Scale 1:24,000.
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2.2.8 Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
VIII. GREENHOUSE GAS EMISSIONS —				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), chlorofluorocarbons (CFCs), and perfluorocarbons (PFCs). Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for enhancing the greenhouse effect.

In 2011, the City adopted the *Envision San José 2040 General Plan* (City of San José, 2018). As part of the General Plan update, the City adopted the *Greenhouse Gas Reduction Strategy for the City of San José* (GHG Reduction Strategy) in accordance with the BAAQMD CEQA Air Quality Guidelines and CEQA Guidelines Section 15183.5, which addresses GHG Reduction Plans. The BAAQMD CEQA Guidelines include three possible thresholds for assessing the required reduction in GHGs by the year 2020:

1. Reducing Greenhouse Gas emissions to 1990 levels by the year 2020;
2. Reducing GHG emissions 15% below a baseline year (2008 or earlier) by 2020; or
3. Meeting the plan efficiency threshold of 6.6 metric tons of CO₂ equivalent per service population (SP) per year (MT CO₂e / SP / year). Service population is defined as the number of residents plus the number of people working within San José.

The City elected to use the third threshold, which equates to 6.6 MT CO₂e / SP / year for the year 2020. The GHG Strategy also identifies policies and measures to reduce GHG generation within the City (City of San José, 2011).

The following list summarizes Project-relevant General Plan policies to reduce GHGs:

Policy MS-5.6: Enhance the construction and demolition debris recycling program to increase diversion from the building sector.

Policy MS-6.3: Encourage the use of locally extracted, manufactured or recycled and reused materials including construction materials and compost.

Policy MS-6.12: Promote use of recycled materials, including reuse of existing building shells/ elements, as part of new construction or renovations.

Existing facilities and equipment at the site are summarized in the Project Description in Section 1.3.1.

Discussion

- a) **Less than Significant Impact.** GHG emissions worldwide cumulatively contribute to the significant adverse environmental impacts of global climate change. No single project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in San José, the entire state of California, across the nation, and around the world contribute cumulatively to the phenomenon of global climate change and its associated environmental impacts. The Project would not increase GHG emissions when compared with existing conditions. Therefore, the following discussion focuses on construction phase GHG emissions. Once constructed, the project would result in moderately reduced on-site maintenance (compared to existing maintenance requirements), as the new single-span aluminum bridge is anticipated to be maintenance-free, and the installation of a fiber optic connection will reduce trips required to activate the aeration system.

The combustion of diesel fuel to power various construction equipment results in the generation of GHGs. Construction emissions associated with the Project were estimated using CalEEMod and Project-specific information such as the types, number, and horsepower rating of construction equipment used, their daily usage in terms of hours per day, and the number of days each piece of equipment is used over the construction period. **Appendix A** contains the data and assumptions used to estimate the construction-phase GHG emissions associated with the Project. The Project is expected to generate a maximum of 25 worker commute round trips per day and about 3,600 hauling truck trips over the 6-month construction period.

As shown in **Table 2-9**, based on CalEEMod estimates, Project construction would generate a total of approximately 267 metric tons CO₂e over the 6-month construction period.

TABLE 2-9
ANNUAL CONSTRUCTION-RELATED GHG EMISSIONS

Source	GHG Emissions ^a (Metric tons of CO ₂ e/year)
Project Construction	267

NOTES:

Emissions estimated are based on types of construction equipment, number, and usage level provided by the applicant. CalEEMod defaults were used for construction schedule, number and length of vehicle trips associated with worker commute, vendor and hauling trips. All assumptions are included in **Appendix A**.

^a GHG emissions are expressed as metric tons of CO₂e and include smaller quantities of other GHG such as methane and nitrous oxide adjusted for their Global Warming Potentials and expressed as CO₂e.

SOURCE: **Appendix A**

Construction-related emissions associated with the proposed Project would be minimal due to the relatively short duration and modest intensity of construction activities at the Project site. In addition, the BAAQMD has neither adopted nor recommended GHG thresholds for construction emissions in their CEQA Air Quality Guidelines. However, the Project's construction-generated GHG emissions would be less than the BAAQMD recommended threshold of 1,100 metric tons of CO₂e per year for operational emissions. Construction emissions are typically amortized over the life of project to determine annual emissions. When amortized over a project life of 40 years (as is recommended for infrastructure projects), construction GHG emissions would be very minimal. Consequently, construction emissions from the proposed Project would not be considered to generate GHG emissions that would have a significant impact on the environment. Project-generated GHG emissions would have a less-than-significant impact.

The City's GHG Reduction Strategy does not include measures to reduce emissions from construction equipment. Therefore, the Project has been evaluated for compliance with relevant General Plan policies under checklist question b) below.

- b) **Less than Significant with Mitigation.** As described above, the City has 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 General Plan includes a number of actions to increase the use of recycled materials used during construction and reduce construction and demolition debris which are typically imposed as permit conditions. However, since this is a City project and does not require City-issued permits, the proposed Project would implement **Mitigation Measure GHG-1** below to ensure compliance with applicable General Plan Policies for reduction of GHG emissions, including MS-6.3 and MS-6.12.

With implementation of this mitigation measure, the proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, this impact would be less than significant.

Mitigation Measure GHG-1: Construction specifications for the Project shall require contractors to implement the following measures:

- To comply with the City's Construction and Demolition Debris program, construction contractors shall use an authorized hauler to haul all construction and demolition debris from the Project to a certified waste diversion facility.
- Construction contractors shall use locally extracted, manufactured or recycled and reused materials including construction material to the extent feasible.
- Cut and fill from the Project site shall be balanced to the extent feasible.

References

Bay Area Air Quality Management District (BAAQMD), 2017. *CEQA Air Quality Guidelines*, revised May 2017. Available online at http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

City of San José, 2011. *Greenhouse Gas Reduction Strategy for the City of San José*, June 2011. Updated December 2015. Available at <http://www.sanjoseca.gov/documentcenter/view/9388>.

City of San José, 2018. *Envision San José 2040 General Plan*, Adopted November 1, 2011 and amended on December 18, 2018.

2.2.9 Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
IX. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

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 database⁹ and the California Department of Toxic Substances Control (DTSC) EnviroStor database¹⁰. 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. Nearby landfill facilities were identified by the database searches. The DTSC is also responsible for updating the Hazardous Waste and Substances Site List (Cortese List). The list is a planning document used by state and local agencies and

⁹ State Water Resources Control Board, GeoTracker database, available online at <http://geotracker.swrcb.ca.gov>, accessed June 29, 2017.

¹⁰ Department of Toxic Substances Control, EnviroStor database, available online at <http://envirostor.dtsc.ca.gov>, accessed November 14, 2019.

developers to comply with CEQA requirements by providing location information for hazardous material release sites.

The Zanker Road, Highway 237, and Old Owens Corning 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 does not contain any hazardous materials sites.

Hazardous Materials Database Search

There are five sites listed on both the GeoTracker and EnviroStor databases that are listed as being located at 700 Los Esteros Road, which is the same address as the Project site.

- **Owens-Corning Fiberglass Corporation LDFL-Alviso – Evaluation**. Owens-Corning Fiberglass Corporation (OCF) owned and operated a solid waste disposal site at the site from 1955 to the 1980s. Since 1985 Zanker Road Resource Management Limited has owned and operated the site known as Zanker Material Processing Facility. It is a Class III waste disposal site and is permitted for the disposal of off-specification materials and waste product from the Owens-Corning Fiberglass Plant. The wastes typically consist of insulation, roof shingles, and non-recyclable waste (DTSC, 2019a). This site is located on the western side of the outfall channel, approximately 250 feet west of project activities (GeoTracker and EnviroStor).
- **San José Water Pollution Control Plant (Cleanup Status: Open-Inactive as of 9/23/2015)**. Possible groundwater and soil contamination by diesel fuel. Approximately 20,000 gallons of diesel were removed from an excavation during activities pertaining to the construction of the South Bay Water Recycling Project. An additional 2.91 million gallons of groundwater containing dissolved diesel but no free product were extracted and treated from 9/9/1997 through 2/10/1998. The site underwent remediation in April of 1997 and is listed as “open-inactive” as of September of 2015 (SWRCB, 2015a). This site is located approximately 1,050 feet to the southeast of project activities (GeoTracker and EnviroStor). As an additional note, this site is included on the Cortese List, and is discussed further in Criterion d, below.
- **Legacy Lagoon Biosolids (Site Type: Voluntary Cleanup, Status: Inactive – Needs Evaluation as on 12/06/2012)** –. Between the 1962 and 1974, biosolids were discharged to a series of lagoons on the Site and allowed to accumulate. These accumulated biosolids remain onsite and are referred to as the legacy biosolids. The City of San José (City) now wishes to investigate possible management/reuse options for these biosolids in order to free up the lagoon area for other purposes. This includes investigation of possible contamination. Project is on inactive status until at least 2013, pending on approval of City of San José's Master Plan Environmental Impact Report (DTSC, 2019b). The nearest portion of the Legacy Lagoons site is over 2,000 feet east of the Project site (GeoTracker and EnviroStor).
- **SJ-SC WPCP Maintenance, Vehicle SVCS & HVAC. Permitted Underground Storage Tank. Permitting Agency: Santa Clara County Environmental Health.** (SWRCB, 2015b). This site is located approximately 1,400 feet to the southeast of project activities (GeoTracker).
- **San Jose, City of WWTP (T0608517987) – (LUST Cleanup Site, Status: Completed – Case Closed as of 06/04/1985)**. This site was a case of a diesel fuel leak that potentially affected the groundwater (SWRCB, 2019b). (GeoTracker)

CERCLA

CERCLA, also known as Superfund, created a tax on the chemical and petroleum industries to provide for response and cleanup of hazardous substances that may endanger public health or the environment. CERCLA established requirements for the treatment of abandoned hazardous waste sites and provided for liability of persons responsible for releases of hazardous waste at these sites.

The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA to increase state involvement and required Superfund actions to consider state environmental laws and regulations. SARA also established a regulatory program for underground storage tanks (USTs) and the Emergency Planning and Community Right-to-Know Act.

There are no Superfund sites in the vicinity of the Project site.

Government Code Section 65962.5 (Cortese List)

As mentioned above, the DTSC maintains a Hazardous Waste and Substances Site List for site cleanup. This list is commonly referred to as the Cortese List. Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to update the Cortese List at least annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Envision San Jose 2040 General Plan

The Envision San José 2040 General Plan provides planning guidance for projects within the City of San José. Specific to hazardous materials, the General Plan contains the following policies:

Policy EC-6.4: Require all proposals for new or expanded facilities that handle hazardous materials that could impact sensitive uses off-site to include adequate mitigation to reduce identified hazardous materials impacts to less than significant levels.

Policy EC-6.5: Require all proposals for new or expanded facilities that handle hazardous materials that could impact sensitive uses off-site to include adequate mitigation to reduce identified hazardous materials impacts to less than significant levels.

Emergency Response

The Santa Clara County Operational Emergency Operations Plan (Santa Clara County, 2008). establishes emergency organizations, assigns tasks, specifies policies and general procedures, and provides for coordination of response in the event of an emergency. However, the plan does not identify specific emergency response or evacuation routes within or surrounding the Facility. The Facility has developed a Contingency Plan for Operation Under Emergency Conditions (Contingency Plan) as required by the Facility's NPDES permit (RWQCB, 2015). This Contingency Plan outlines actions required at the Facility in response to extreme flooding, earthquakes, fire, and accidental release of hazardous materials. In the case of an ammonia, chlorine, or sodium bisulfate release, should nonessential Facility personnel need to be evacuated, the Contingency Plan indicates personnel should proceed south along Zanker Road and should

not proceed on Los Esteros Road. The levee road would not be used for emergency response or as an evacuation route.

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 and oil for construction equipment. Storage and use of hazardous materials at the construction site during routine use could result in the accidental release of small quantities of hazardous materials, which could degrade soil and/or surface water within the Project area.

However, as discussed in greater detail in Section 2.2.10, *Hydrology and Water Quality*, the Project would be subject to the requirements of the NPDES General Construction Activity Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit) through development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to reduce the potential release of contaminants during construction. Once operational, the Project would not introduce any new hazardous materials to the Project area. All equipment and material storage areas are required to be routinely inspected for leaks, and records for documenting compliance with the storage and handling of hazardous materials would be maintained. Thus, potential adverse effects related to the routing use and possible release of hazardous construction chemicals into the environment would be minimized. This impact would be less than significant.

- b) **Less than Significant with Mitigation.** Project construction would include grading, excavation, and the construction of new facilities. No facilities would be demolished (with the exception of the outfall bridge and the associated infrastructure listed in Section 1.5.4, Construction Methods and Sequence). For this reason, the likelihood of release of hazardous building materials such as lead-based paint or asbestos is very low. The Project would include excavation of a total of approximately 37,260 cubic feet of material (see Chapter 1, Project Description, Table 1-3). Groundwater pumped from excavations would be collected, tested, and treated at the Facility if needed (refer to Chapter 1, Project Description). While the potential to encounter contaminated soil is low, the potential exists for workers to encounter hazardous materials in the soil and groundwater during Project construction because multiple sites on the Facility lands are included in the lists of hazardous material sites in Envirostor and GeoTracker, as summarized in the Hazardous Materials Database Search section above. 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, the public, and other Facility personnel to hazardous materials and chemical vapors. For these reasons, the impact related to exposure to hazardous materials in soil and groundwater during construction of the Project and a reasonably foreseeable upset and accidental release of hazardous materials in the environment would be potentially significant. Implementation of the following mitigation measures would reduce this impact to a less than significant

level by requiring a hazardous material assessment and preparation of a Health and Safety Plan to ensure appropriate management of soil encountered during construction.

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

Prior to construction, ET or ESD's contractor shall ensure that a limited soil and/or groundwater investigation is performed at proposed construction work areas to characterize soil and groundwater quality. If the results reveal soil and/or groundwater contamination exist in excess of applicable regulatory screening levels (Environmental Screening Levels or California human health screening levels) for the proposed site use, the City shall contact the appropriate regulatory agency (the Santa Clara County Department of Environmental Health [SCCDEH], the Regional Water Quality Control Board [RWQCB], and/or Department of Toxic Substances Control [DTSC]) as appropriate. The ET or ESD's contractor shall complete subsequent site investigations and/or remedial activities required by the regulatory agency to ensure that residual impact, if any, shall not pose a continuing significant threat to groundwater resources, human health, or the environment.

The results of the pre-construction hazardous materials assessment shall be incorporated into the Site Health and Safety Plan prepared in accordance with **Mitigation Measure HAZ-1b**, below, and if a soil sample exceeds regulatory screening levels, a Soil and Groundwater Management Plan would be prepared in accordance with **Mitigation Measure HAZ-1c**, below, 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.

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

The ET or its contractor shall 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. 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 implement procedures to be followed in the event of an unanticipated hazardous materials release that may impact health and safety. These procedures shall be in accordance with hazardous waste operations and regulations and specifically include, but are not limited to: 1) immediately stopping work in the vicinity of the unknown hazardous materials release; 2) notifying SCCDEH, RWQCB, and/or DTSC; and 3) 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 ET, or any review of the contractor's HASP, shall not be construed as approval of the adequacy of the contractor as a 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 hazardous materials or contaminated soil and groundwater above regulatory screening levels are identified under the pre-construction hazardous materials assessment, done in accordance with Mitigation Measure HAZ-1a, ET shall require the construction contractor to prepare and implement a Soil and Groundwater Management Plan that specifies the method for handling and disposal of contaminated soil and groundwater prior to construction.

The Soil and Groundwater Management Plan will establish the sampling and laboratory analysis program which may include the following: analysis of subsurface soil samples within the Project site for total petroleum hydrocarbons (as gasoline, diesel, and waste oil), Title 22 metals, and volatile organic compounds (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 semi-volatile organic compounds (SVOCs) for groundwater samples collected at construction locations within 1,000 feet of adjacent landfills.

The Soil and Groundwater Management 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 an appropriately 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 be used to analyze groundwater for hazardous materials likely to be encountered and the appropriate treatment and/or disposal methods.

The Pre-Construction Hazardous Materials Assessment (HAZ-1a), Health and Safety Plan (HAZ-1b), and Soil Management Plan (HAZ-1c) shall be submitted to the PBCE Supervising Environmental Planner for approval. With incorporation of these mitigation measures, this impact would be less than significant.

- c) **No Impact.** There are no schools within one-quarter-mile of the Project. Therefore, there would be no impact under this criterion.
- d) **Less than Significant with Mitigation.** As mentioned above, the San José Water Pollution Control Plant at 700 Los Esteros Road, which is the location of the Project is included on the Cortese List. This is a site of possible soil and groundwater contamination and is considered open. The site has undergone previous remediation in 1997 and has been inactive since 2015. Due to the proximity of this site to the Project there is a potential risk of encountering contaminated soil or groundwater during construction, and would be a significant impact. 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, the public, and other Facility personnel to hazardous materials and chemical vapors. For these reasons, the impact related to exposure to hazardous materials in soil and groundwater during construction of the Project and a reasonably foreseeable upset and accidental release of hazardous materials in the environment would be potentially significant. Implementation of the following mitigation measures would reduce this impact to a less than significant: **Mitigation Measure HAZ-1a: Pre-Construction Hazardous Materials Assessment;**

Mitigation Measure HAZ-1b: Health and Safety Plan; Mitigation Measure HAZ-1c: Soil and Groundwater Management Plan.

Refer to Criterion b), above, for the full text and the descriptions of these mitigation measures.

Implementation of **Mitigation Measures HAZ-1a** through **HAZ-1c** would reduce this potentially significant impact to less than significant.

- e) **No Impact.** The Project area is not located within an airport land use plan and is not within two miles of an airport. The nearest airports to the Project are the Norman Y. Mineta San José International Airport, located approximately 4.5 miles south of the Project area and the Moffett Federal Airfield, located approximately 5 miles southwest of the Project area. There would be no impact under this criterion.
- f) **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. The Facility would follow the emergency Contingency Plan during operation if there is an accidental release of hazardous materials. As noted above, the levee road is not used as an evacuation route. The Project would not impair or otherwise interfere with an adopted emergency response plan or evaluation plan. Therefore, there is no impact under this criterion.
- g) **Less than Significant Impact.** Based upon fire hazard mapping by the CAL FIRE Forest Resource Assessment Program (CAL FIRE, 2007) and the Santa Clara County Wildland Urban Fire Interface Map (Santa Clara County, 2009), the Project site is not within a high fire hazard area. 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. 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 wildland fires during construction would be less than significant.

References

- California Department of Forestry and Fire Protection (CAL FIRE), 2007. Draft Fire Hazard Severity Zones in LRA for Santa Clara County.
- Department of Toxic Substances Control (DTSC), 2019. EnviroStor database. Legacy Lagoon Biosolids (60001622).
- DTSC, 2019. EnviroStor database. Owens-Corning Fiberglass Corp LDFL-Alviso (43490055).
- Regional Water Quality Control Board (RWQCB), 2015. San Francisco Bay Region. San Jose-Santa Clara Regional Wastewater Facility Contingency Plan for Operation Under Emergency Conditions. NPDES #CA-0037842. December 2015.

Santa Clara County, 2008. 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

Santa Clara County, 2009. Santa Clara County Wildland Urban Fire Interface Map. CAL FIRE. Map. Scale 1:100,000. October 4, 2007.

State Water Resources Control Board (SWRCB), 2015. GeoTracker database. San José Water Pollution Control Plant (SL18357777).

SWRCB, 2015a. GeoTracker database. SJ-SC WPCP Maintenance, Vehicle SVCS & HVAC. Facility ID: FA0269259.

SWRCB, 2019b. GeoTracker database. San Jose, City of, WWTP (T0608500423).

2.2.10 Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
X. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Project area is located in the southern San Francisco Bay Area, which experiences a Mediterranean climate characterized by mild, wet winters and dry, warm summers. The South Bay typically receives about 90 percent of its annual precipitation in the fall and winter months, with the highest amount of rainfall generally occurring in January. The average annual rainfall in this region 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.

Surface Water

The nearest surface waters to the Project area include Artesian Slough, Coyote Creek, and the southern San Francisco Bay as well as other sloughs, marshes, and ponds associated with the southern fringe of the bay. The Facility's discharge outfall channel drains into Artesian Slough, a tributary of South San Francisco Bay via Coyote Creek. Artesian Slough contributes to the 30,000-acre Don Edwards San Francisco Bay National Wildlife Refuge along the southern portion of the Bay. Coyote Creek is a waterway currently proposed for listing on the San Francisco Bay Regional Water Quality Board 303(d) list of impaired waterways for toxicity, and

is currently listed for Diazinon and trash (SFRWQCB, 2016).¹¹ The receiving waters of South San Francisco Bay are listed as impaired for pollutants including PCBs and dioxin-like PCBs, currently being addressed by a USEPA-approved total maximum daily load (TMDL).¹²

Groundwater

The Project overlies the Santa Clara Valley Groundwater Basin, Santa Clara Subbasin, which is designated by the California Department of Water Resources as a high priority basin for purposes of groundwater sustainability planning (DWR, 2019). Groundwater quality in the basin is generally very good, although substances such as nitrate, salts, metals, microbes, inorganic and organic contaminants may be present in trace amounts (Santa Clara Valley Water District, 2019).

Flood Zone

The Project components would be located entirely within a 100-year flood zone special flood hazard area (Zone AE), as denoted by the Federal Emergency Management Agency flood insurance rate maps (FEMA, 2014). The 100-year flood zone includes areas that have a one-percent annual chance of a flood occurrence in any given year. As noted in Chapter 1, Project Description, the ongoing USACE Shoreline Project will provide enhanced flood protection to the Project area and is anticipated to also provide 500-year flood protection to infrastructure.

San Francisco Bay Water Quality Control Plan (Basin Plan)

San Francisco Bay waters are under the jurisdiction of the San Francisco Bay RWQCB, which established regulatory standards and objectives for water quality in the Bay in the Water Quality Control Plan for the San Francisco Bay Basin, commonly referred to as the Basin Plan. The Basin Plan identifies existing and potential beneficial uses for surface and ground waters and provides numerical and narrative water quality objectives designed to protect those uses. **Table 2-10** (below) lists beneficial uses and impairment status as well as sources of pollution for water bodies in the vicinity of the Project. The preparation and adoption of water quality control plans is required by the California Water Code (Section 13240) and supported by the federal CWA. Because beneficial uses, together with their corresponding water quality objectives, can be defined pursuant to federal regulations as water quality standards, the Basin Plan is a regulatory reference for meeting the state and federal requirements for water quality control, and is the basis for standards outlined in discharge permits (described in more detail below). Adoption or revision of surface water standards is subject to the approval of the USEPA.

¹¹ The Federal Clean Water Act, Section 303(d) list of impaired waterways is a list including water bodies and surface waters exceeding pollutant levels or not meeting protective water quality standards.

¹² Total Maximum Daily Loads (TMDLs) are action plans to restore clean water. Placement of a water body on the 303(d) list requires the development of a TMDL or other regulatory programs to address the impairment.

TABLE 2-10
BENEFICIAL USES AND IMPAIRMENT STATUS

Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Coyote Creek	Groundwater Recharge (GWR), Commercial and Sport Fishing (COMM), Cold Freshwater Habitat (COLD), Preservation of Rare and Endangered Species (RARE), Fish Spawning (SPWN), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2)	At least one beneficial use is not supported; a TMDL (for Diazinon) is still needed; a TMDL (for toxicity) has been developed, and the approved implementation plan is expected to result in full attainment. Trash pollution is being addressed by actions other than a TMDL.	Diazinon, <i>Source: Unknown.</i> Toxicity, <i>Source: Unknown.</i> Trash, <i>Source: Unknown.</i>
Artesian Slough (also called Mallard Slough)	Estuarine Habitat (EST), Fish Migration (MIGR), Preservation of Rare and Endangered Species (RARE), Wildlife Habitat (WILD), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2).	At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment	Diazinon, <i>Source: Unknown.</i>
Santa Clara Valley (Coyote Valley) Groundwater Sub-Basin	Municipal and Domestic Water Supply (MUN), Industrial Process Water Supply (PROC), Industrial Water Service Supply (IND), Agricultural Water Supply (AGR).	N/A	N/A
San Francisco Bay, South	Estuarine Habitat (EST), Sport and Commercial Fishing (COMM), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC-1), Noncontact Water Recreation (REC-2), Fish Spawning (SPWN), Wildlife Habitat (WILD),	At least one beneficial use is not supported and a TMDL is needed.	Chlordane, DDT, Dieldrin, Dioxin compounds, Furan compounds, Invasive species, Mercury, PCBs, Selenium; <i>Sources: Unknown.</i>

SOURCE: RWQCB, Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. With amendments adopted through May 4, 2017.

San Francisco Bay Region NPDES Permits

Discharges of stormwater and treated wastewater from areas that drain to the Facility are regulated under Order No. R2-2014-0034 and NPDES Permit (No. CA0037842) issued by the San Francisco Bay RWQCB (RWQCB, 2014). As noted in Chapter 1, Project Description, the Facility is required under the Order to meet specific water quality criteria and discharge limits, described in further detail below under Facility Waste Discharge Requirements. The Facility also complies with water quality monitoring requirements of other permits including the Nutrients Watershed Permit (NPDES No. CA0038873, Order No. R2-2014-0014) and the Mercury and PCBs Watershed Permit (Permit No. CA0038849, Order No. R2-2017-0041).

Facility Waste Discharge Requirements

Pursuant to Order No. R2-2014-0034 waste discharge requirements, the Facility monitors biochemical oxygen demand (BOD), dissolved oxygen (DO), total suspended solids (TSS), turbidity, total ammonia, oil and grease, pH, total chlorine residual, enterococcus bacteria, metals, and effluent toxicity at intervals required by the Facility's NPDES Permit. Daily average flow is a

critical measurement for the Facility with respect to discharge requirements, as it is used in calculating loads for BOD, ammonia, and TSS (San José RWF, 2018).

As discussed in Chapter 1, Project Description, the Project would maintain compliance with existing water discharge requirements which include conducting regular measurements to monitor average daily flow through the outfall channel as well as multiple biological and chemical constituents, as required by the Facility's NPDES Permit (Order No. R2-2014-0034).

Clean Water Act Section 401 Water Quality Certification

Procurement and adherence to a Clean Water Act Section 401 Water Quality Certification from the San Francisco Bay RWQCB would also occur. Direct impacts to waters of the United States (including wetlands and jurisdictional aquatic resources) are addressed in Section 2.2.4, *Biological Resources*.

Construction General Permit Order 2009-0009-DWQ

Dischargers are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ if their projects disturb one or more acres of soil, or disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres (SWRCB, 2018). Because the Project would disturb 3.87 acres of land, coverage under the Construction General Permit would be required to construct the Project.

Sustainable Groundwater Management Act

In 2014, the California State Legislature approved a combination of bills that together formed the Sustainable Groundwater Management Act (SGMA). The SGMA requires the formation of local Groundwater Sustainability Agencies (GSAs) that must develop Groundwater Sustainability Plans (GSPs) for medium or high priority groundwater basins in California. The goal of the GSPs is to make groundwater basins sustainable by the year 2042 (DWR, 2019).

Santa Clara Water District Groundwater Sustainability Plan 2016

The GSA for sustainable management of the Santa Clara Valley Basin is the Santa Clara Water District, which published its groundwater sustainability plan in 2016. The GSP contains goals and strategies for sustainable management of the basin (SCVWD, 2016).

City of San José Grading Ordinance

The City code requires that no person shall do any grading without having obtained a grading permit or notice of exemption from the director (City of San Jose, 2019). However, pursuant to 17.04.310(8) of City Code, "earthwork entirely within public rights-of way or easements and/or which is authorized and administered by a public agency" may qualify for an exemption from the grading permit requirement.

City of San José Requirements for Special Flood Hazard Area

The City Code contains specific requirements pertaining to new construction or substantial improvements in special flood hazard areas (City of San Jose, 2019).

- A. The floodplain administrator shall review for new construction or substantial improvements of structures within the special flood hazard area. No flood clearance for a building permit shall be issued unless the floodplain administrator determines that the proposed construction, repair, reconstruction or improvement, including manufactured homes, if any are permitted, pursuant to Titles 19 and 20 of this Code meets all of the following requirements:
 1. Is protected against flood damage;
 2. Is adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic or hydrostatic loads, including the effect of buoyancy;
 3. Uses construction materials and utility equipment that are resistant to flood damage;
 4. Uses construction methods and practices that will minimize flood damage;
 5. Uses electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
 6. If within Zones AH or AO as shown on the FIRM, has adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures;
 7. Nonresidential and mixed-use construction. Excepting nonresidential and mixed-use construction in Zone A99, all new construction of any nonresidential or mixed-use structure or substantial improvements of such structures shall comply with all the requirements of Subsections A.1. through A.6. above and be in conformance with the elevation requirements of the applicable flood hazard zone or the alternative flood hazard requirement as specified below:
 - a. Zone AO. Elevated to or above the depth number specified on the FIRM. If there is no depth number on the FIRM, the lowest floor, including basement, shall be elevated two feet above the highest adjacent grade. Access to residential uses of mixed use structures shall be dry floodproofed. Upon completion of the structure, the floodplain administrator or a registered professional engineer or surveyor shall certify that the structure is elevated as set forth in this subsection and, if certified by a professional engineer or surveyor, shall provide such certification to the floodplain administrator as set forth in Section 17.08.560.
 - b. Zones A, A1-A30, AE or AH. Elevated to or above the base flood elevation specified on the FIRM or the best available data as defined in Section 17.08.410 when base flood elevation has not been provided. Access to residential uses of mixed use structures shall be dry floodproofed. Upon completion of the structure, the elevation on the required vertical datum showing the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor and provided to the Floodplain administrator as set forth in Section 17.08.560.
 - c. Alternative flood hazard requirement. With attendant utility and sanitary facilities:
 - i. Be dry floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

- ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- iii. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certification shall be provided to the floodplain administrator as set forth in Section 17.08.560.

Facility Flood Protection Guidelines

In 2016, the City identified recommendations and guidelines for flood protection for future Capital Improvement Program (CIP) Projects at the Facility (called the “Flood Protection Guidelines”). The purpose of the Flood Protection Guidelines is to provide the Facility with a set of guidelines to follow in order to adequately protect existing and future planned facilities from potential flooding that could reach the Facility (including sea level rise). Guidelines for both existing and new structures were developed, addressing different categories and subcategories of facilities, such as below grade, at grade, and above grade structures (City of San José, 2016). The recommendations in the Flood Protection Guidelines consider the City’s 2040 General Plan language (specifying that the Facility be protected from the 500-year recurrence interval event) as the governing requirement and design basis, as it is the strictest and most closely reflects the national standard for critical facilities used by FEMA.

Specific measures are included in the Flood Protection Guidelines including dry flood proofing design measures such as temporary or permanent flood shields, waterproof sealants, backflow valves and internal drainage systems. Other flood proofing strategies are identified in the Guidelines such as placing new facilities or elevating equipment above the flood elevation, using flood shields and barriers, waterproof membranes, or resistant materials (in areas prone to inundation).

The Flood Protection Guidelines identify two preferred options for overall Facility flood protection, one option to be implemented if the Shoreline Project (described in Chapter 1, Project Description) is not constructed, and one option if the Shoreline Project is constructed. Without the Shoreline Levee Project, a system of interconnected engineered berms at elevation 14.6 feet NAVD88 (representing the 500-year flood elevation plus an upper range estimate of sea level rise, without freeboard) around the main Facility operational area is recommended. With the Shoreline Levee Project, a similar system of interconnected engineered berms around the Facility, to an elevation of 13.1 feet NAVD88 (representing the 500-year flood elevation without sea level rise or freeboard), is recommended.

Envision San José 2040 General Plan Policies

The City has adopted numerous goals, policies, and outlined actions with the objective of reducing and/or avoiding impacts to the City’s water resources.

Goal MS-3: Water Conservation and Quality. Maximize the use of green building practices in new and existing development to minimize use of potable water and to reduce water pollution.

Policy MS-3.1: Require water-efficient landscaping, which conforms to the State’s Model Water Efficient Landscape Ordinance, for all new commercial, institutional,

industrial, and developer-installed residential development unless for recreation needs or other area functions.

Policy MS-3.4: Promote the use of green roofs (i.e., roofs with vegetated cover), landscape-based treatment measures, pervious materials for hardscape, and other stormwater management practices to reduce water pollution.

Policy MS-3.5: Minimize areas dedicated to surface parking to reduce rainwater that comes into contact with pollutants.

Goal MS-20: Water Quality. Ensure that all water in San José is of the highest quality appropriate for its intended use.

Policy MS-20.2: Avoid locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as having a high degree of aquifer vulnerability by the Santa Clara Valley Water District or other authoritative public agency.

Policy MS-20.3: Protect groundwater as a water supply source through flood protection measures and the use of stormwater infiltration practices that protect groundwater quality. In the event percolation facilities are modified for infrastructure projects, replacement percolation capacity will be provided.

Policy MS-20.4: Work with local, regional and state agencies to protect and enhance the watershed, including the protection of surface water and ground water supplies from pollution and degradation.

Goal EC-5: Flooding Hazards. Protect the community from flooding and inundation and preserve the natural attributes of local floodplains and floodways.

Policy EC-5.1: The City shall require evaluation of flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated floodplain. Review new development and substantial improvements to existing structures to ensure it is designed to provide protection from flooding with a one percent annual chance of occurrence, commonly referred to as the “100-year” flood or whatever designated benchmark FEMA may adopt in the future. New development should also provide protection for less frequent flood events when required by the State.

Policy EC-5.2: Allow development only when adequate mitigation measures are incorporated into the project design to prevent or minimize siltation of streams, flood protection ponds, and reservoirs.

Policy EC-5.3: Preserve designated floodway areas for non-urban uses.

Policy EC-5.4: Develop flood control facilities in cooperation with the Santa Clara Valley Water District to protect areas from the occurrence of the “1%” or “100-year” flood or less frequent flood events when required by the State.

Discussion

- a) **Less than Significant Impact with Mitigation.** Construction of the Project would include ground disturbing activities, such as grading to facilitate foundation upgrades, trenching for the conduit and fiber optic cable installation, and subsurface installation of

drilled reinforced concrete piers. In-water work includes installation of rip-rap, gravel and underwater grout and the removal of bridge columns, 21 flash boards, as well as the installation of two poles into the channel bottom for the temporary platform. These activities have the potential for delivering silt and sediment into the discharge outfall channel, which is carefully managed in order for the facility to maintain compliance with all provisions of its stormwater and other NPDES permit water quality requirements. As the Project would include 3.87 acres of soil disturbing activities, a construction general permit (Order 2009-0009-DWQ) and a stormwater pollution prevention plan (SWPPP) would be prepared for the Project. The SWPPP would include specific provisions for erosion control and equipment maintenance to limit the inadvertent delivery of pollutants, including silt and sediment, into the discharge channel. The SWPPP would also contain management practices and procedures for site maintenance and monitoring to protect against degradation of surface and groundwater during construction.

As discussed in Chapter 1, Project Description, a temporary floating water quality monitoring station would be installed upstream of the existing weir, to maintain Facility effluent water quality monitoring operations during construction.

Accidental Discharge

During project construction, small leaks or spills of fuel or lubricants may occur and could affect an area extending to the boundaries of the delineated study area. Efforts would be taken to minimize leaching of other chemicals, such as underwater grout material that would be used to fill holes from an erosion scour under the weir structure. All grouting materials and cement used for in-water work would adhere to federal and California regulations. Underwater grout/epoxies used in marine environments are specifically designed to limit adverse impacts on aquatic life. Any leaching of grout material should not extend beyond the local area around the weir structure, as these materials are relatively dense and do not mix easily with seawater. Grouting material would be pre-mixed on land, then introduced with a tremie pump in a focused, deliberate fashion into the holes (i.e., using the tremie method¹³). Because grouting material is denser than seawater, it would not disperse into the water column. Potential release of polycyclic aromatic hydrocarbons (PAHs) into the water can be a concern when construction equipment operates in or near water. The existing source of PAHs in the lower South San Francisco Bay is likely from stormwater and wastewater discharges according to a 2019 draft report from the San Francisco Estuary Institute (2019). It is unlikely that PAHs would be released into the water during project construction since there is no potential source for PAHs with the construction equipment and methods proposed for the project. No equipment will be in the water releasing oil-based substances other than the outboard in the boat used to conduct water quality sampling as part of Mitigation Measure HYD-1 described below. In addition, a tremie pump would be used to install the underwater grout for a few hours and is expected to be completed no

The process of pouring concrete through a pipe to prevent contact with surrounding water.

longer than a day. The temporary poles inserted for the temporary floating platform would be non-PAH-preserved poles approved for California marinas.

Proposed in-water and above-water work could result in substantial adverse effects to waters of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers and waters of the State under the jurisdiction of the Central Coast Regional Water Quality Control Board. Potential significant impacts resulting from construction activities include, but are not limited to, temporary disturbance of jurisdictional non-wetland waters, degradation of water quality and open water aquatic habitat, and accidental discharge of toxic materials.

To reduce potential impacts from accidental discharge that could violate water quality standards or waste discharge requirements, implementation of **Mitigation Measure HYD-1** would require best management practices (BMPs) during work activities that occur near or in water and **Mitigation Measure HYD-2** would monitor water quality during in-water work. Implementation of these measures would reduce potential impacts to less than significant levels.

Mitigation Measure HYD-1: Water Quality Best Management Practices During In-water and Near Water Work Activities.

- In order to avoid and/or minimize potential impacts to water quality (and jurisdictional waters) during Project activities that would be conducted in or over waters, the following construction BMPs would be implemented by the contractor, and overseen by a water quality specialist, to prevent releases of construction materials or hazardous materials and to avoid other potential environmental impacts:
- In-water work with the potential to harm fish and aquatic resources (e.g., grouting, rip-rap, and gravel placement) will be conducted at low tide to the extent feasible.
- All project components will be designed using materials that follow local, California, and national environmental regulations; this includes the use of underwater grout (e.g., cementitious or epoxy specifically chosen for in-water applications.)
- No debris, rubbish, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be allowed to enter into jurisdictional waters or placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters. Staged construction materials with the potential to be eroded/entrained during a rainfall event will be covered every night and during any rainfall event (as applicable).
- All construction material, wastes, debris, sediment, rubbish, trash, fencing, etc., will be removed from the project site daily during construction, and thoroughly at completion of the project. Debris will be transported to an authorized upland disposal area.

- To isolate potential water quality impacts from rip-rap and gravel placement and grouting, a silt curtain with floating boom, or another effective technology, will be placed to constrain the construction footprint from Artesian Slough. The silt curtain will be placed within 500-feet of the in-water construction activity. The exact location will be determined at the discretion of the contractor in consultation with the water quality specialist, with the goal to maximize functionality of the curtain. The contractor will ensure curtain placement is also upstream of the water quality monitoring location described below. The silt curtain will accomplish the following:
- Isolate construction activities from Artesian Slough
- Contain turbidity and sediment resulting from the construction activity
- Deter fish, and other aquatic species, from accessing the active construction area
- Allow water to pass between Artesian Slough and the outfall channel with the tides
- The silt curtain will be at least the height of the outfall weir (approximately 6 feet tall) to maintain a barrier at high tide. The curtain will consist of permeable filter fabric supported by a line of floats (boom) on the water surface and a line of weights/anchors on the bottom to secure the curtain to the channel bed to maintain coverage around the active in-water construction area. The curtain would be secured to land and to the weir with anchors at the channel banks to hold the curtain in place.
- At the request of BCDC, CDFW, the Water Board, or USACE, the contractor will prepare a plan that provides a description of methods to be used to direct flow away from the active construction work area in Artesian Slough prior to implementation. Temporary measures will be used to minimize the volume of direct flow from the outfall channel into the active construction site to minimize the movement of construction-related turbidity increases into Artesian Slough.
- Floating booms shall be used to contain any accidental debris discharged into waters, and any debris shall be removed as soon as possible, and no later than the end of each workday. If feasible, personnel in workboats within the work area will immediately retrieve such debris for proper handling and disposal. Non-buoyant debris discharged into waters shall be recovered (by divers) as soon as possible after discharge. Protective measures will be utilized to prevent accidental discharges of oils, gasoline, or other hazardous materials to jurisdictional waters during fueling, cleaning, and maintenance of equipment. Well-maintained equipment will be used to perform construction work, and, except in the case of failure or breakdown, equipment maintenance will be performed off-site. Crews will check heavy equipment daily for leaks, and if leaks are discovered it will be immediately contained and use of the equipment will be suspended until repaired. The source of the leak will be identified, material will be cleaned up, and the cleaning materials will be collected and properly disposed.

- Vehicles and equipment used during the course of construction will be serviced offsite. On-site fueling of marine equipment (if any) will comply with U.S. Coast Guard requirements. Smaller equipment, such as generators and hand tools will be fueled using fuel tanks, hoses, and fuel cans. Fueling locations will be inspected after fueling to document that no spills have occurred. Any spills will be cleaned up immediately.

Concrete grouting that has not cured is alkaline and can increase the pH of water. Should concrete mix with water in Artesian Slough, water quality could worsen in Artesian Slough, generating a potentially significant impact. **Mitigation Measure HYD-2 Water Quality Monitoring** would be implemented to collect water quality samples for visible materials, turbidity, dissolved oxygen, and pH on a daily basis. Because there is low potential risk for introduction of PAHs into the water as discussed above only pre-construction and post-construction sampling would be required for PAHs. With the implementation of these measures, the potential impacts to water quality would be reduced to less than significant levels.

Mitigation Measure HYD-2: Water Quality Monitoring.

- Prior to and during in-water construction, water quality measurements will be collected and recorded within Artesian Slough. Data will be collected at the City's previously established monitoring location within Artesian Slough, approximately 1,500 feet downstream of the outfall weir.¹⁴
- Measurement data will be collected prior to the start of construction each day to establish current ambient, baseline conditions. Subsequently, water quality data will be collected every two hours during construction to ensure compliance with the water quality metrics described below. All measurements will be collected at the top of the water column to control for the natural variability in water quality at different depths, and to ensure data are comparable.
- Exceedance of any of the water quality metrics described below would trigger a stop to in-water work, and adjustment to the water quality BMPs (as described in **MM HYD-1**) until it can be demonstrated that water quality objectives can be maintained. The water quality monitoring parameters enumerated below represent a consolidation of applicable regulatory requirements as outlined within the Marine Water Quality Objectives (MWQO) for the San Francisco Bay Basin.
- Visual: No significant floating particulates, suspended materials, grease, or oil shall be visible. No aesthetically undesirable coloration of the water surface; oils, grease, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water.

¹⁵ As the Congestion Management Agency (CMA) for Santa Clara County and through its Congestion Management Program (CMP), the Santa Clara Valley Transportation Authority (VTA) has a statutory role to work with its Member Agencies (the 15 cities and towns in Santa Clara County, as well as the County of Santa Clara) on issues related to land use and transportation. As part of this role, VTA is working with its Member Agencies on the transition from Level of Service (LOS) to Vehicle Miles Traveled (VMT), in accordance with Senate Bill 743.

- Turbidity: Given the wide historic range, and high daily variability, in documented turbidity within Artesian Slough, strict adherence to Basin Plan objectives is infeasible. As a result, the following thresholds are proposed:
 - No more than 50 nephelometric turbidity units (NTU) above background when background between 0 and 100 NTUs.
 - No more than 50 percent above background turbidity levels when background is greater than 100 NTUs.
- Dissolved Oxygen (DO): DO levels will not drop below 5.0 mg/l. If natural factors cause lesser concentrations, construction will cause no further reduction in the concentration of DO.
- pH: Construction will cause no more than a 0.5 increase or decrease in pH and pH levels will remain within 6.5 to 8.5.
- If required by natural resource agencies, pre-construction and post-construction sampling for total Polycyclic Aromatic Hydrocarbons (PAHs) may be conducted as follows: pre-construction sampling for total PAHs prior to construction activity to establish ambient PAH concentration in Artesian Slough, and at the conclusion of project construction, conduct additional PAH sampling for total PAHs. Post-construction total PAHs are not to exceed 15 µg/l, unless it can be shown that post-construction site concentrations are similar to the ambient levels measured during pre-construction sampling.

Local dewatering may be required to construct new vaults at the daylight station, located at the edge of the outfall channel. This water would be pumped into mobile tanks, tested, and transferred to be treated at the Facility's headworks, as necessary. Removed solids would be transferred to the nearby Zanker Road Landfill, or other landfill certified to accept the solid waste. Treatment of dewatering effluent and disposal of solids would occur in accordance with the NPDES permit requirements. **Mitigation Measure HAZ-1c**, described in Section 2.2.9, *Hazards and Hazardous Materials*, would require that a soil and groundwater management plan be prepared for the Project to ensure the safe handling and storage of excavated materials. **MM- HAZ-1c** also contains procedures and requirements for soil and groundwater testing prior to construction.

MM HAZ-1c would be implemented along with BMPs contained in the SWPPP, as required for the Project's construction general permit. Typical BMPs may include (but not be limited to) limitations for timing construction to not coincide with rain events; erosion control measures including placement of berms, silt fencing, or straw wattles; stipulations to avoid run off during dust control; site management measures such as removing trash and debris from the site daily; covering stockpiled soils and construction pits; stabilizing site entrances to prevent track out of dirt and mud; and designating fueling or equipment maintenance areas to limit contamination on and off site. Implementation of **MM HYD-1**, **MM HYD-2**, and **MM HAZ-1c** along with BMPs contained in the SWPPP would ensure that impacts to water quality associated with the

Project's construction activity would not be substantial. Therefore, construction-related impacts would be less than significant with mitigation implemented.

Following construction, the functionality of the Facility would be improved, as new equipment and instrumentation would be installed and the functional condition of the outfall weir and bridge would be corrected. As the structures are utilized for key water quality monitoring activities, maintenance of the outfall bridge and weir in a functional condition is vital to the Facility's ongoing compliance with its NPDES permit waste discharge requirements and applicable water quality standards. The Project would also result in improved reliability of effluent monitoring. Thus, operation of the Project would not conflict with or violate water quality standards or otherwise degrade surface or groundwater quality. Impacts associated with operation and maintenance of the Project would be less than significant.

- b) **No Impact.** The Project would be located in the Santa Clara Valley Groundwater Basin, which is identified as a medium priority basin, although not one subject to conditions of critical overdraft. Salt water intrusion and subsidence have been identified as key issues associated with the basin. The Project would not include a net change in impervious surface areas or otherwise interfere with conditions for recharge of groundwater resources. Construction would require water for dust control, and for compaction of the road surface in preparation for repaving, but this water would be supplied using recycled water sources, produced at the Facility. Operation and maintenance of the Project would not require ongoing extraction or use of groundwater such that supplies would be decreased. There would be no impact on groundwater supplies as a result of construction or operation of the Project.
- c.i) **Less than Significant Impact.** The Project would alter the existing drainage patterns to facilitate upgrades to the access roads near the SO₂ building, and for trenching to accommodate the fiber optic cable. The Project would include alteration of existing conditions at the outfall channel including placement of rip-rap, gravel and underwater grout to arrest settlement and neutralize existing erosive conditions on site. However, placement of the rip-rap, gravel, and grout is not expected result in substantial erosion or siltation. The Project would remove and replace an existing concrete foundation structure for the transformer and conduct minor repairs to upgrade the functionality of the paved access road. The asphalt would be restored to its original dimensions. No net change to the overall impervious surface area is proposed as part of the Project.

In the absence of measures to limit erosion, ground disturbance associated with construction of these Project components could substantially contribute to siltation into the outfall channel or adjacent wetland areas. The Project would implement best management practices including installation of silt fences, straw wattles, and gravel bags at key locations to reduce siltation and minimize erosion on and off site. A construction general permit and a SWPPP would be required to be implemented as part of the project. The SWPPP would also contain measures to reduce delivery of silt and sediment on- and off-site.

The Project would include construction activities within approximately 0.10 acres of areas identified as open water and tidal marshlands, as delineated by the Project's aquatic resources report (ESA, 2019) (**Appendix C**). The proposed in-water work includes installation of two guide poles for the temporary floating platform, rip-rap, gravel and underwater grout placed in Artesian Slough, so a CWA Section 401 Water Quality Certification and Lake and Streambed Alteration Agreement would also be required. These permits, crafted in consultation with the RWQCB and CDFW, would contain provisions and requirements to limit impacts associated with erosion.

In addition, the Project addresses current conditions of structural settlement, soil erosion, and insufficient protection from scour at the weir located in the outfall channel in order to reduce ongoing erosion. Implementation of the Project would address and correct existing conditions of erosion and settlement in the outfall channel which threaten to undermine the weir. Thus, once implemented, the Project would provide protection and maintain the integrity of the structures and reverse conditions of erosion on site. Impacts, primarily associated with construction activities, would be less than significant.

- c.ii) **Less than Significant Impact.** During construction, runoff from the Project would be minimized through implementation of BMPs and other measures contained in the SWPPP. These measures would include silt barriers, and other erosion control devices. As described previously, the Project would not include a net increase of impervious surface area. Therefore, once operational the Project would not substantially increase the rate or volume of runoff water in a manner which would result in flooding on- or off-site. Therefore, impacts would be less than significant.
- c.iii) **No Impact.** The Project area would not drain to the municipal stormwater drainage systems, and the Project would not utilize substantial amounts of water for construction or operation. As dewatering would be required for vault construction at the daylight station, the removed water would be treated in mobile tanks and returned to the Facility's headworks for additional treatment onsite, as needed. The Facility has adequate capacity to treat this water. Therefore, there would be no impact pertaining to stormwater drainage capacity exceedances.
- c.iv) **Less than Significant Impact.** As discussed in the Chapter 1, Project Description, an access road would be rehabilitated and repaved, and several existing concrete pads on site would be removed as part of the Project. A foundation pad for the existing transformer would be constructed at an elevation that would accommodate a 500-year flood with adequate clearance for this critical infrastructure, consistent with applicable codes and building standards including the Facility's Flood Protection Guidelines. The risk of flooding exists in the Project area, as the Facility is located within the 100-year flood hazard zone. The City has adopted Flood Protection Guidelines for the Facility that reflect the national standard for design of critical facilities used by FEMA, consistent with the City's Municipal Code 17.08.620 and General Plan Policy EC-5.12 . The increased risks associated with flooding would be reduced through implementation of recommendations, such as raising the elevation of pads, identified as a highly resilient and effective adaptation

- strategy in the Flood Protection Guidelines. The Project is designed in a manner which would comply with existing regulations with respect to the placement of critical infrastructure at elevations above the floodway. The final Project design would also include specific flood protection measures, including raising the elevation of the transformer pad 1.5-feet above the modeled 100-year flood elevation, in accordance with the Shoreline Project, which is expected to reduce the flood hazard conditions at the Facility. The Project is designed to not increase impervious surface area compared to existing conditions. Project facilities would incorporate flood proofing requirements from the Facility's Flood Protection Guidelines. The proposed transformer foundation would be relocated/replaced on site, with no net change to impervious surface area. The foundation would be set at a higher elevation which could moderately redirect flood flows. However, the proposed site is not located near residences or any structures; therefore, impacts would not be significant.
- d) **Less than Significant Impact with Mitigation.** The Project is not located in a tsunami or seiche inundation zone; thus, there is no risk of release of pollutants as a result of these hazards. The Facility and the entire Project area is located in a 100-year flood zone, defined by FEMA as a Special Flood Hazard Area (Zone AE with a base flood elevation of 12 feet). The Project would implement mitigation measures HAZ-1c, HYD-1, and HYD-2 to ensure that pollutants are not released during construction. With implementation of these measures, the project would be constructed and operated in a manner that would maintain water quality compliance with all regulatory requirements and would be consistent with the Facility's NPDES permit. In addition to the mitigation measures described under criterion a), the SWPPP required under the construction general permit, would also contain management practices to reduce the risk of release of pollutants on site and into the surrounding area during construction. Design of the Project to raise the elevation of site structures would occur in accordance with the Flood Protection Guidelines would ensure impacts related to pollutant release during inundation would be less than significant.
- e) **Less than Significant Impact.** The Facility, through its NPDES permit obligations, is mandated to maintain compliance with regional water quality objectives, as described in the Basin Plan. The Project would address and correct existing conditions, including settlement of the rip-rap in the outfall channel, leaking flashboards, and failing instrumentation, that currently threaten to compromise maintenance and monitoring of water quality and other functional operations of the Facility. Implementation of the Project would occur in a manner that would maintain compliance requirements such as continuous monitoring of water quality constituents and flow in the outfall channel throughout construction, as stipulated in the Facility's NPDES permits. As these discharge permits are developed based on the region's water quality objectives, and compliance would continue through construction by installation of a temporary water quality monitoring station, there would be no conflict. Adherence to the regulatory terms of the Construction General Permit and implementation of the best management practices in the Project-specific SWPPP would reduce the risk of water quality violations attributable to the Project's construction activity.

As described in criterion b), construction and operation of the Project would not require the use of groundwater resources. In addition, the Project would be implemented in a manner that would not affect recharge or groundwater contamination. Thus, the Project would not conflict with the objectives of the Santa Clara Valley Groundwater Sustainability Plan.

Therefore, impacts associated with construction and operational activities of the Project would be less than significant.

References

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2.2.11 Land Use and Planning

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XI. LAND USE AND PLANNING — Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The Project would involve construction within and adjacent to the Facility, located at 700 Los Esteros Road in the City of San José, Santa Clara County, California. Land uses within the Project site are designated in the Envision San José 2040 General Plan as Public/Quasi-Public land, and Open Space, Parklands, and Habitat (City of San José, 2011). These categories are typically used to designate public land uses such as water treatment facilities, as well as low-intensity spaces such as habitat buffers and recreation areas. With respect to City zoning districts described in the Envision San José 2040 General Plan, the Project site is zoned Heavy Industrial south of Los Esteros Road, Light Industrial north of Los Esteros Road to approximately half way up the outfall channel, and Agricultural from half way up the channel to the outfall bridge and weir (City of San José, 2011).

Discussion

- a) **No Impact.** All of the Project components would be constructed within and adjacent to the Facility, in a generally industrial environment. There are no established communities within the Project site. None of the proposed components or uses would physically intrude into or divide an established community. Therefore, there would be no impact.
- b) **Less than Significant Impact.** Because the Project would continue to support wastewater treatment activities, implementation of these improvements would be consistent with the Public/Quasi-Public, and Open Space, Parklands, and Habitat land use designations in the General Plan and the Heavy Industrial, Light Industrial, and Agricultural zoning districts. The Project would be consistent with existing zoning and land use policies in the General Plan, which recognize the continuing use of this area for wastewater treatment uses while establishing policies intended to limit impacts on nearby Baylands and maintain an open character.

References

City of San José, 2011. Envision San José 2040 General Plan. Adopted November 1, 2011, Amended February 27, 2018.

2.2.12 Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Project area is not within an aggregate resource area, and is mapped by the California Division of Mines and Geology as being within Mineral Resource Zone 1 (CGS, 1987). Mineral Resource Zone 1 identifies areas where adequate information exists to determine that significant aggregate resources are not present. Additionally, according to the United States Geological Survey (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 (MRDS, 2019).

The Project site is part of the Facility, which is already using the channel, levee, and outfall bridge for their approved purposes that do not involve any mining or mineral extraction. The Project would not change those uses or otherwise change the current or future availability of mineral resources.

Discussion

- a, b) **No Impact.** No known mineral resources of importance to the state or region are located on site. 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 proposed Project would not result in the loss of availability of mineral resources, or otherwise interfere with the extraction of existing mineral resources.

References

- California Geological Survey (CGS), 1987. Mineral Land Classification: Aggregate Materials in the San Francisco – Monterey Bay Area. DMG Special Report 146 part II.
- U.S. Geologic Survey, Mineral Resources Data System (MRDS), Mineral Resources On-Line Spatial Data, available <http://mrddata.usgs.gov/mineral-resources/mrds-us.html>. Accessed August 28, 2019.

2.2.13 Noise

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XIII. NOISE — Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

There are no noise sensitive receptors (e.g., residences, schools) in the immediate vicinity of the Project area. The closest sensitive receptors to the Project area are residences and churches/worship centers located in the community of Alviso (part of the City of San José, southwest of the Project site about 0.6 miles away). The Don Edwards San Francisco Bay National Wildlife Refuge Environmental Education Center is located approximately 500 feet west from the Project site, while the Marsh View Trail runs as close as 300 feet from the location of proposed construction activities (see Figure 1-2). However, there is vegetation and Grand Boulevard between the trail and the closest point of the project area, which is an access road, not an area where construction activity would be conducted.

The proposed Project would have no operational noise-related impacts, so this section focuses primarily on construction noise.

Applicable Noise Standards and Policies

The City's General Plan includes policies applicable to all development projects in San José (City of San José, 2011). The General Plan's Noise Element includes land use compatibility guidelines which state that the City's normally acceptable exterior noise level is 60 A-weighted decibels (dBA) day-night noise level (DNL) or less for residential and most institutional land uses. The City's standard for interior noise levels for residences, hotels, motels, and residential care facilities is 45 dBA DNL. The exterior noise standard for outdoor recreation areas is 65 dBA (City of San José, 2011).

In addition, 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 relevant to the Project:

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:

- Cause the DNL at noise sensitive receptors to increase by 5 dBA DNL or more where the noise levels would remain “Normally Acceptable”; or
- Cause the DNL at noise sensitive receptors to increase by 3 dBA DNL or more where noise levels would equal or exceed the “Normally Acceptable” level.

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

Policy EC-1.7: Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City’s Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:

- Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

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) would be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.

In addition to the above General Plan policies, the proposed 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.

Table 2-11 shows how the project would comply with the General Plan policies for noise and vibration.

**TABLE 2-11
PROJECT COMPLIANCE WITH GENERAL PLAN POLICIES**

General Plan Policy	Project Compliance
Policy EC-1.2	Project involves upgrades and retrofits to existing uses and would not develop any new land uses.
Policy EC-1.3	Project involves upgrades and retrofits to existing uses and would not develop any new land uses.
Policy EC-1.7	Project is not located within 500 feet of residential uses or 200 feet of commercial uses.
Policy EC-2.3	As detailed under checklist question b) Project related construction activities would be located 3,400 feet from nearest receptors and
Municipal Code §20.100.450	Project construction activities would be limited to the daytime hours of 7 AM to 7 PM on weekdays, with no construction weekends and holidays.

Discussion

- a) **Less than Significant Impact.** Construction is a temporary source of noise that can impact residences, businesses, and outdoor recreational uses 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, excavation, and pile driving. However, there are no noise-sensitive land uses (i.e., residences, hospitals, schools, or churches) in the immediate vicinity of the Project area. The closest residential uses are located over 3,400 feet away, while the nearest school is located over a mile away.

Based on the construction equipment likely to be used for the Project, operation of the drill rig would generate the highest noise. Drill rigs can generate noise levels of up to 85 dBA at 50 feet (FHWA, 2006), but this would attenuate to 48.4 dBA at the nearest residences located approximately 3,400 feet southwest of the Project site, well below the City's noise standards and not considering the presence of intervening structures. Therefore, worst-case Project construction exterior noise levels at the nearest existing residential uses would not be expected to exceed noise standards. In addition, onsite construction activities would be restricted to daytime hours (7:00 a.m. to 5:00 p.m.), as indicated in the Project Description Section 1.5.2, when ambient noise levels at the receptors are at their highest and potential for impact is lower. Ambient noise measurements at these receptors was not conducted as part of the analysis, however, typical noise levels in quiet residential areas range from 50 (very quiet) to 60 dBA, DNL. The attenuated Project-related construction noise would be below these levels and not be perceptible over the existing ambient noise environment at the nearest sensitive receptors. As addition of noise levels is logarithmic in nature, addition of 48.4 dBA from Project construction activities would not change the ambient noise environment at the nearest residential receptors.

Users of the nearby trails (Marsh View, New Chicago, and Mallard Slough) (shown on Figure 1-2) could be exposed to increased noise levels during construction. However, these users would be considered transient receptors as would be exposed to construction noise for very short periods of time as they pass through portions of the trail adjacent to construction activities. Further, as use of the trail is more likely to take place during early morning and evening hours and on weekends, which are more typical hours for recreation use, this would not coincide with the hours of construction which would be restricted to the 7:00 a.m. to 5:00 p.m. on weekdays. Therefore, impacts to trail users could be considered less than significant.

In summary, construction noise from the Project would not increase ambient noise levels in the vicinity of the project in excess of standards because construction noise is temporary in nature, and recreations would only be exposed to noise for a short duration, if at all, since substantial noise-generating construction activities would only occur intermittently. This impact would be less than significant.

Once operational, the Project would not include any new noise sources. In fact, maintenance trips by staff are expected to decrease. Thus, no operational impact would occur.

- b) **Less than Significant Impact.** Construction activities can result in varying degrees of vibration depending on the equipment used and construction methods employed. The potential for significant construction vibration impacts exists when construction includes activities such as blasting, pile driving, or use of other impact equipment in close proximity to sensitive receptors. Project construction activities would involve drilling, which would generate vibration levels of 0.089 in/sec PPV at a distance of 25 feet from the equipment. This would be less than the City's standard in Policy EC-2.3 of the General Plan. All other equipment used for Project construction would generate lower levels of vibration. As these activities would take place at a distance of more than 3,400 feet from the nearest receptors, this impact would be less than significant.
- c) **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 Moffett Field are located approximately 4 miles south and 5.5 miles southwest of the Project area, respectively. There are no private airstrips in the Project vicinity. Since the Project site is more than 2 miles from a public use airport or a private airstrip and proposes no uses that would be affected by local aircraft operations, the proposed Project would not be significantly impacted by aircraft noise. The impact would be less than significant.

References

City of San José, 2011. *Envision San José 2040 General Plan*, November 2011.

Federal Highway Administration (FHWA), 2006. *Construction Noise Handbook*, August 2006.

2.2.14 Population and Housing

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XIV. POPULATION AND HOUSING — Would the project:				
a) Induce substantial unplanned 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Project would be located in lands managed by the Facility as part of its operations. There are no residences adjacent to the Project site. The Project would replace aging infrastructure to prevent a loss of services already provided by the Facility and would not add additional capacity to its operations.

Discussion

- a) **No Impact.** The Project would involve replacement of aging infrastructure at an existing industrial site without increasing treatment capacity and would not directly or indirectly induce population growth. Therefore, there is no impact related to this criterion.
- b) **No Impact.** The Project would involve replacement of aging infrastructure at an existing industrial site and would not result in the demolition of existing housing, or otherwise cause a reduction in housing units on site or elsewhere.

2.2.15 Public Services

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

Setting

The Project components are part of the Facility which provides public services in the form of wastewater treatment and water quality management. The Project would avoid the potential for loss or damage to that service by repairing and replacing aging infrastructure.

Fire protection services for the City are provided by the San José Fire Department (SJFD). The SJFD currently consists of 33 active stations and the closest fire station to the Facility is Station 25 located at 5125 Wilson Way in Alviso, approximately one mile west of the Facility. The SJFD responds to all fires, hazardous materials spills, and medical emergencies in the City, including at the Facility site and the Project area (City of San José, 2019). Police services for the City of San José are provided by the San José Police Department.

The Santa Clara County Operational Area Emergency Operations Plan establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of response in the event of an emergency. As described in Section 2.2.9, *Hazards and Hazardous Materials*, the Facility has a site-specific Contingency Plan for Operation Under Emergency Conditions and an Emergency Response Plan as well as staff to coordinate during emergencies. Emergency access, south along Zanker Road, would be maintained during construction and the Project does not propose road closures.

There are no schools or parks in the Project area, and the nearby Don Edwards San Francisco Bay National Wildlife Refuge is not accessible from the Project site or vice-versa.

Discussion

- a.i) **Less than Significant Impact.** Construction of the Project would involve the use of equipment and ground disturbing activities that could spark fires temporarily increasing

risks of emergency situations on site. Similarly, accidents or theft could occur during construction potentially impacting local demand for police or fire response. However, the Project would not alter routes of ingress and egress, nor would any road closures be required during construction. Impacts associated with construction would not lead to a need for new public service police or fire facilities. Therefore, construction-related impacts would be temporary and less than significant.

Operation of the Project would not result in new activities on site that would increase demand for fire protection. In the unlikely event of a fire within the Project area, including a fuel fire, fire response would be provided by the San José Fire Department (SJFD). SJFD maintains a hazardous incident team, 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 during construction and operation. Therefore, the proposed Project would not deleteriously affect fire department response times and would not require additional facilities or equipment. Therefore, it would be a less-than-significant impact.

- a.ii-v) **No Impact.** Project construction would not involve road closures or result in any other impacts such that response times or performance objectives would be affected. The construction components and activities 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. No operational activities beyond routine instrument monitoring and maintenance inspections are associated with the Project. Additionally, the Project would not create demand for police services such that response times would be altered. As noted above, implementing the Project would reduce risks associated with aging infrastructure needed for Facility-provided services by replacing existing features and would result in no impact.

References

City of San José 2019. City of San José Fire Department website: Available at: <http://www.sanjoseca.gov/index.aspx?NID=197>. Accessed August 28, 2019.

2.2.16 Recreation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XVI. RECREATION —				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) Environmental Education Center is located approximately 500 feet west of the Project site. There is no access between the Refuge and the Project site. In addition, the Project site is not publicly accessible and is limited to use by Facility staff. The Mallard Slough Trail, the New Chicago Marsh Trail, and the Marsh View Trail are all located near the Environmental Education Center, as shown on Figure 1-2. The Mallard Slough Trail runs on the opposite side of the outfall channel west of the Project area, approximately 300 feet away at its nearest point.

Discussion

- a) **No Impact.** The Project would involve temporary construction activities for approximately six months. These activities would involve concurrent demolition and construction of the outfall bridge, weir structure, and instrumentation equipment, as well as installation of other components along the levee road east of the outfall channel. The Project would not permanently affect any existing recreational uses of nearby features and would only temporarily and minimally be noticeable by recreational users of the Refuge facilities west of the outfall channel. 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 or accelerated physical deterioration of recreation related facilities. No impact would occur.
- b) **No Impact.** The Project does not propose to construct recreational facilities and would not result in the need for new or expanded recreational facilities. No impact would occur.

References

U.S. Fish & Wildlife Service, 2013. Don Edwards San Francisco Bay National Wildlife Refuge Trail Guide. June 2013.

2.2.17 Transportation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XVII. TRANSPORTATION — Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Project activities would occur along the levee roads east and west of the outfall channel and immediately south of the outfall channel where work on the daylight station would occur. The entire Project area is only accessible to Facility staff and its contractors. Access to the site itself is through locked gates controlled by the Facility. The public roads around the Facility are characterized by relatively low traffic volumes that are mostly associated with Facility operations or those of other nearby industrial or public service-related facilities.

Access to the Project site from the regional roadway network is limited to Zanker Road. The most likely intersections that could be affected by an increase in traffic trips would be the Zanker Road/SR 237 Westbound Ramps and Zanker Road/SR 237 Eastbound Ramps intersections. Both of these intersections are part of the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program (CMP).¹⁵ According to the VTA's 2017 Annual Monitoring and Conformance Report, these two intersections operate at level of service (LOS) F and D, respectively during the AM peak hours and LOS E during the PM peak hours.¹⁶ The acceptable service levels for these intersections is LOS E or better (Santa Clara Valley Transportation Authority, 2017).

SR 237 has relatively high traffic volumes during both peak traffic periods and has limited capacity to accommodate additional growth in traffic. Northbound I-880 is the peak commute direction during the morning, and southbound is the peak commute direction during the evening. I-880 has slightly more capacity to accommodate additional growth in traffic, though it does have

¹⁵ As the Congestion Management Agency (CMA) for Santa Clara County and through its Congestion Management Program (CMP), the Santa Clara Valley Transportation Authority (VTA) has a statutory role to work with its Member Agencies (the 15 cities and towns in Santa Clara County, as well as the County of Santa Clara) on issues related to land use and transportation. As part of this role, VTA is working with its Member Agencies on the transition from Level of Service (LOS) to Vehicle Miles Traveled (VMT), in accordance with Senate Bill 743.

¹⁶ The operation of a local roadway network is commonly measured and described using a grading system called Level of Service (LOS). The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long delays). This LOS grading system applies to both roadway segments and intersections.

constraints in the peak directions of travel. Data published by Caltrans indicate that the annual average daily traffic (AADT) on I-880 is about 180,000 vehicles south of SR 237 and 225,000 vehicles north of SR 237 (Caltrans, 2017). CMP guidelines require that freeway segments to which a proposed development is projected to add trips equal to or greater than one percent of the freeway segment's capacity must be evaluated.

As established in City Council Policy 5-1 "Transportation Analysis Policy" (2018), the City of San José uses vehicle miles traveled (VMT) as the metric to assess transportation impacts from new development. According to the policy, an employment (e.g. office, R&D) or residential project's transportation impact would be less than significant if the project VMT is 15 percent or more below the existing average regional per capita VMT. For industrial projects (e.g. warehouse, manufacturing, distribution), the impact would be less than significant if the project VMT is equal to or less than existing average regional per capita VMT. The threshold for a retail project is whether it generates net new regional VMT, as new retail typically redistributes existing trips and miles traveled as opposed to inducing new travel. If a project's VMT does not meet the established thresholds, mitigation measures would be required, where feasible. The policy also requires preparation of a Local Transportation Analysis (LTA) to analyze non-CEQA transportation issues, including local transportation operations, intersection level of service, site access and circulation, and neighborhood transportation issues such as pedestrian and bicycle access, and recommend needed transportation improvements.

Discussion

- a) **Less than Significant Impact.** The Project would replace the existing outfall bridge with a new bridge, re-establish the weir's scour protection, repair the weir's leaking flashboard system, repair gaps caused by settlement beneath the SO₂ building, re-establish a level ground surface around the SO₂ building and vehicle turnaround area, replace aging facility instrumentation (e.g., water quality monitoring instrumentation, flow meters, and transformer) to ensure reliable water quality and quantity compliance monitoring, and improve communication between the Facility and SO₂ building. Overall, it is anticipated that the Project would present no change or moderately reduced operations and maintenance activity on site, and therefore the discussion below is focused on Project construction.

The proposed Project would not change the existing or future roadways or other circulation system in any way. There would be a limited amount of construction equipment associated with Project implementation (e.g., backhoe, excavator, crane, compactor, Tremie pump, drill rig, etc.) that would be delivered to the Project site at the commencement of construction and removed at completion. There would be several haul trucks for material deliveries and off-haul of construction waste and excavation spoils. Crew vehicles would be limited because typical crew sizes would be about 10 workers, with a maximum of up to 25 workers per day.

Construction equipment and workers would access the site from Los Esteros Road and Zanker Road, generally exiting from State Route (SR) 237 from the Zanker Road off-

ramp. Construction workers would park vehicles north of the SO₂ building and east of the daylight station, which would overlap with the staging areas. Additional parking, staging, laydown space and contractor trailer parking is available at the existing Construction Enabling Area, along the southeast portion of the Facility. The proposed Project would not require any road closures or lane closures and would proceed during a 6-month construction schedule. Anticipated construction related trips would thus be dispersed in time across the construction period. As noted above, the most likely intersections that could be affected by an increase in construction traffic trips would be the Zanker Road / SR 237 Westbound Ramps and Zanker Road / SR 237 Eastbound Ramps intersections, which currently operate at LOS F and D, respectively during the AM peak hours and LOS E during the PM peak hours. The addition of vehicle trips associated with construction workers (on average about 10 workers per day, or a maximum of 25 construction workers per day) and a maximum of 15 truck trips per day for materials deliveries and off-haul of construction waste over the construction period would result in minor to negligible changes to existing traffic patterns along Project area access roads. While construction worker vehicle trips may coincide with peak morning and peak evening commute traffic, truck trips would occur over the course of the workday, thus lessening the effect of construction-related vehicle trips during the most congested times of the day. These additional trips are not anticipated to reduce level of service noticeably, and the intersections would continue to operate at acceptable service levels according to the VTA's designated LOS standard for these two intersections (i.e., LOS E or better).

The Project site and its immediate environs are not directly served by transit, although a limited number of VTA bus routes operate in the area. The Great America Amtrak and Altamont Commuter Express station is located approximately two miles from the Project site, but there is no transit connectivity between the Project site and the station. Existing transit service does not serve the Project area directly, and the Project would not conflict with any planned transit facilities nor would the Project prohibit access to such facilities.

The Project site currently has very limited pedestrian access, and no sidewalks are provided within the Project site. The Project would not affect any existing or planned pedestrian facilities nor would the Project conflict with any plans or policies associated with such facilities and users of such facilities.

Based on the discussion above, there would be no potential to conflict with a circulation plan or policy and thus no impact.

- b) **Less than Significant.** For operational impacts, the City's Transportation Impact Policy (5-1) indicates that local-serving public facilities meet the City's screening criteria, meaning they are not subject to analysis because they are expected to result in less than significant VMT impacts based on project description, characteristics, and/or location (City of San José, 2018). If the Project included a substantial increase in traffic, due to Facility expansion for example, it may be subject to Policy 5-1. However, since Project operations would not result in any increases traffic to the Project site, it meets the screening criteria.

There would be temporary increases in VMT during construction, due to employee vehicle trips and haul trips. However, these impacts would be temporary, and haul truck trips would be intermittent during the six-month construction duration. Construction-only projects that do not result in increased operational VMT are not subject to Policy 5-1, and the City does not require additional analysis for CEQA compliance.

Since the Project is a qualifying local-serving public facility, and would not generate more vehicle trips than existing operation and maintenance activities for the Facility once operational, it would not conflict or be inconsistent with CEQA Guidelines section 15064.3(b). Therefore, this impact would be less than significant.

- c) **No Impact.** The Project would not alter roadway geometries or provide new roadway design features that would result in traffic safety hazards for vehicles, bicyclists, and pedestrians along nearby roadways. There would be no impact.
- d) **No Impact.** Existing emergency access to the Project site is gained via Zanker Road, from North 1st Street, and along Los Esteros Road. Project construction would not require any lane closures on any of these public roadways. Therefore, similar to existing conditions, access would be maintained to the Project site for emergency vehicles during Project construction. Based on these findings, there would be no impact to existing emergency access to the Facility.

References

City of San José, 2018. Council Policy – Transportation Analysis Policy, Policy Number 5-1. Effective March 29, 2018.

Santa Clara Valley Transportation Authority, 2016. 2016 CMP Monitoring and Conformance Report, available online at: http://vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/Final%20MC%20Report%202016.pdf. accessed August 26, 2019.

2.2.18 Tribal Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XVIII. TRIBAL CULTURAL RESOURCES —				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

Pursuant to PRC Section 21074(a), tribal cultural resources are: 1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing in the California Register of Historical Resources (California Register), or local register of historical resources, as defined in PRC Section 5020.1(k); or, 2) a resource determined by the CEQA lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). The lead agency shall consider the significance of the resource to a California Native American tribe in making this determination. For a cultural landscape to be considered a tribal cultural resource, it must be geographically defined in terms of the size and scope of the landscape (PRC Section 21074[b]). Also, an historical resource, as defined in PRC Section 21084.1, unique archaeological resource, as defined in PRC Section 21083.2(g), or non-unique archaeological resource, as defined in PRC Section 21083.2(h), may also be a tribal cultural resource, if it confirms with the criteria of PRC Section 21074(a).

ESA submitted a Sacred Lands File search request to the Native American Heritage Commission (NAHC) for the Plant Master Plan on August 1, 2011 and updated the request on May 6, 2016 for the Capital Improvement Program, which included the current Project area. ESA received a response on May 20, 2016. The search of their Sacred Lands File identified tribal cultural resources in the vicinity of the Facility. The City sent letters to Native American individuals and organizations on May 31, 2016 for the Capital Improvement Program requesting an opportunity to consult on the improvement projects at the Facility. Additional letters were sent for subsequent projects including the Digated Sludge Dewatering Facility, to which Katherine Erolinda Perez, Chairperson of the Northern Valley Yokuts Tribes and the Nototomne Cultural

Preservation, responded on April 26, 2019. Consultation was not requested by the tribes for the proposed Project.

As described in Section 2.2.5, *Cultural Resources*, ESA completed a cultural resources study for the Capital Improvements Program (Brennan et al., 2016), which included the Project site, and provided background research, a surface survey, and an analysis of the potential for cultural resources to be present in the Facility. ESA completed a records search for the entire Facility at the Northwest Information Center (NWIC) of the California Historical Resources Information System on August 1, 2011 (File No. 11-0118). Prehistoric site CA-SCL-528, which is the only archaeological resource in the vicinity not along the Guadalupe River, is approximately 0.7 mile southeast of the Project site. Several other archaeological resources have been recorded on the Guadalupe River, more than 1 mile southwest of the Project site. All of these resources are prehistoric occupation sites with midden soils, fire-affected rock, faunal remains, and/or lithic artifacts. At least two of the resources are known to contain human burials. All of the sites are located in areas that would have historically been the habitable shoreline adjacent to the extensive marshland of the San Francisco Bay.

As described in detail in Section 2.2.5, *Cultural Resources*, the underlying geology in the Project site consists of approximately 10 feet of artificially-placed fill over San Francisco Bay Mud, which has low to very low potential for containing buried archaeological sites that could also be considered tribal cultural resources.

Discussion

a.i/a.ii) **Less than Significant with Mitigation.** Based on the results of correspondence with the NAHC and the NWIC records search, no known tribal cultural resources listed or determined eligible for listing in the California Register, included in a local register of historical resources, or determined by the lead agency to be significant would be impacted by the Project.

However, if any previously unrecorded archaeological resource were identified during Project implementation, particularly ground-disturbing construction activities, and were found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(2), any impacts to the resource resulting from the proposed Project could be potentially significant. Any such potential significant impacts would be reduced to a less-than-significant level by implementing **Mitigation Measure CUL-1.1: Inadvertent Discovery of Archaeological Resources**, **Mitigation Measure CUL-1.2: Inadvertent Discovery of Tribal Cultural Resources**, and **Mitigation Measure CUL-2: Inadvertent Discovery of Human Remains** (refer to Section 2.2.5).

2.2.19 Utilities and Service Systems

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XIX. UTILITIES AND SERVICE SYSTEMS —				
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 from San José and Santa Clara route to the Facility, of which the outfall bridge, channel, and its levees are components. The Facility is a public service system that provides primary, secondary, and tertiary treatment of wastewater and has the capacity to treat 167 million gallons per day (mgd) average dry weather influent flow (City of San José, 2019).

The Facility has a number of existing permits and regulatory agreements with which it must comply. One of these is a Waste Discharge Requirement (WDR) permit from the San Francisco RWQCB. The proposed Project would replace the existing bridge, water quality monitoring instrumentation, and flashboards for the weir, which would allow the Facility to continue to comply with the WDR conditions.

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, and Guadalupe Landfill) or at other landfills outside the county. According to CalRecycle and Santa Clara County's 2012 five-year countywide integrated waste management plan review report, the county has adequate disposal capacity (i.e., greater than 15 years) (CalRecycle, 2015.)

The Facility currently receives electrical power from the grid via PG&E as the main source of power supply. There are PG&E towers and power lines that run alongside the eastern edge of the project area, but the proposed Project would not affect those lines or PG&E's ability to access them.

Discussion

- a) **Less than Significant Impact.** The proposed Project would generate wastewater during construction due to dewatering activities as described in Section 2.2.10, *Hydrology and Water Quality*. However, this wastewater would be returned to the treatment train for reprocessing at the Facility in a manner that would comply with applicable RWQCB requirements for wastewater treatment and discharge. The Facility has adequate capacity to process the dewatering effluent. Therefore, no new facilities would be required to treat the construction-related wastewater.

The Project would install underground conduits for a fiber optic cable to improve communications and data transfer with a more reliable and secure system between the SO₂ building, the daylight station, and the process controls systems of the Facility. Additional electrical conduits will be installed alongside the fiber optic cable conduit to provide for future project needs. Potential environmental impacts due to the trenching associated with construction is analyzed in Section 2.2.7, *Geology and Soils*, Section 2.2.9, *Hazards and Hazardous Materials*, and Section 2.2.10, *Hydrology and Water Quality*, which reference the SWPPP to be developed and implemented as part of the Project in accordance with a NPDES General Permit for Stormwater Discharge Associated with Construction and Land Disturbance Activities. This plan would include BMPs designed to control and reduce erosion. These measures would generally consist of silt fences, straw wattles, and gravel bags. The project does not require or propose the construction of new storm water drainage or water conveyance facilities. The Facility's proposed project upgrades electrical structures consist of relocation (replacement) of a transformer foundation and internal wiring within the SO₂ building. These project modifications would not expand the Facility's energy systems. Therefore, impacts would be primarily associated with construction and would be less than significant.

- b) **Less than Significant Impact.** The proposed Project may require limited water during construction in support of dust suppression, which would be provided from the Facility's recycled water system supply adjacent to the site. Approximately three to four water truck trips per day (capacity 2,000 gallons) are expected for dust suppression and trench compaction. Otherwise, because no ongoing operations, except routine maintenance, would be associated with the Project, no water use would be required. Therefore, existing water supplies at the Facility would be sufficient to enable construction of the proposed Project and any foreseeable future operational needs during normal, dry, and multiple dry years. This impact is considered less than significant.
- c) **No Impact.** The proposed Project would not generate wastewater. Therefore, the Project would not require additional wastewater treatment capacity in order to serve the Project. No impact would occur.

- d) **Less than Significant Impact.** During construction, the proposed Project would generate construction-related waste and debris such as: surplus soils, the existing outfall bridge, weir flash boards, transformer, pavement, pullboxes, controls cabinets, and pad, panels, asphalt, current flow meters and three concrete slabs. Operation of the Project would occur in a manner similar to the existing maintenance of the Facility. The Project is not anticipated to increase operational wastes requiring disposal.

To the extent feasible, recyclable construction materials would be recycled. Non-recyclable materials would be taken to a Zanker Road Landfill located adjacent to the Facility, or another nearby landfill to be determined by the contractor, and disposed of in accordance with applicable regulatory requirements. The proposed Project may utilize one or more of the four landfills identified above to dispose of any remaining or unused construction-related solid wastes. As stated in the Setting, Santa Clara County has at least 15 years of available landfill capacity. The proposed Project would generate a relatively limited volume of solid waste during construction, and no additional solid waste is anticipated from project operations, available landfill capacity would not be noticeably affected by the proposed Project. This impact is considered less than significant.

- e) **Less than Significant Impact.** Project construction would comply with all applicable regulatory requirements related to solid waste, and specifications for Project construction would contain requirements for the handling, storage, cleanup, and disposal of any hazardous materials, or other construction pollutants. For additional discussion of hazardous materials and potential hazardous materials handling and impacts, please refer to Section 2.2.9, *Hazards and Hazardous Materials*. The project would divert construction debris to the extent feasible. Outdated instrumentation and reusable materials (removed as part of the project) would be recycled, as appropriate. This impact is considered less than significant.

References

California Department of Resources Recycling and Recovery (CalRecycle, 2015), Facility Information Toolbox: Identify Disposal Facility Capacity Shortfalls-Santa Clara County. Available online: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/>. Accessed September 13, 2019.

City of San Jose, 2019. Official Website. San Jose-Santa Clara Regional Wastewater Facility. Available online: <http://www.sanjoseca.gov/?nid=1663>. Accessed September 13, 2019.

2.2.20 Wildfire

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XX. WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

Based upon fire hazard mapping by the CAL FIRE Forest Resource Assessment Program and the Santa Clara County Wildland Urban Fire Interface Map, the Project site is not located within an area identified as a high fire hazard area (Calfire, 2019; Santa Clara County Planning Office, 2009).

Discussion

- a) **Less than Significant.** Santa Clara County has adopted an emergency operations plan. The Santa Clara County Operational Area Emergency Operations Plan establishes emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of response in the event of an emergency. This plan does not designate specific emergency response or evacuation routes within or surrounding the Facility (Santa Clara County Planning Office, 2009).

The Facility has developed a Contingency Plan for Operation Under Emergency Conditions (Contingency Plan) as required by the Facility's NPDES permit (RWQCB, 2015). This Contingency Plan outlines actions required at the Facility in response to extreme flooding, earthquakes, fire, and accidental release of hazardous materials. The Project would follow this Contingency Plan during operation if there is a fire or an accidental release of hazardous materials. The Contingency Plan identifies Zanker Road as an evacuation route should Facility personnel need to be evacuated. Emergency access, south along Zanker Road, would be maintained during construction and the Project does not propose road closures and therefore would not impair implementation of or interfere with the Contingency Plan. Construction and operation of the Project would not affect

evacuation routes and therefore would have no impact on emergency response or evacuation plans.

- b-c) **Less than Significant.** The Project is not located within a high fire hazard area. The topography of the Project site is generally flat, ranging from mean sea level to approximately 12 feet above mean sea level. Prevailing winds are primarily from a northwest direction. Vegetation communities surrounding the Project site consist of tidal marsh habitat and disturbed/ruderal habitat which is subject to mowing. No new roads would be installed as part of the Project. 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. 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 fires during construction would be less than significant. Through compliance with legal requirements related to hazardous materials storage and fire protection, potential risks of fire associated with construction and operation of the Project would not expose project occupants to pollutant concentrations or uncontrolled spread of wildfire.
- d) **Less than Significant.** There are no population centers or structures near the Project site. Due to the overall flat topography, immediate proximity to the San Francisco Bay, and low elevation of the Project site, the Project would not expose people or structures to significant risks resulting from post-fire land changes.

References

Calfire, 2019. California Fire Hazard Severity Zone Map Update Project, <http://egis.fire.ca.gov/FHSZ/>, accessed August 29, 2019.

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.; 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.

Regional Water Quality Control Board (RWQCB), 2015. San Francisco Bay Region. San Jose-Santa Clara Regional Wastewater Facility Contingency Plan for Operation Under Emergency Conditions. NPDES #CA-0037842. December 2015.

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

2.2.21 Mandatory Findings of Significance

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
XXI. MANDATORY FINDINGS OF SIGNIFICANCE —				
a) Does the project have the potential to substantially 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, substantially 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project 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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) **Less than Significant Impact with Mitigation.** The proposed Project would involve installation of the outfall weir aluminum flashboards, addition of rip-rap downstream of the channel, and installation of water quality monitoring equipment in the outfall pipes, which could result in a small amount of turbidity during these activities. In addition, grout material would be installed to fill the void under the weir structure. Smaller rock and gravel would be installed in-between the rip-rap to ensure gaps between the rip-rap are minimized. The small amounts of fill – in the form of rip-rap, grout, and smaller rock and gravel – would be placed in the intertidal zone on the downstream side of the new outfall bridge. Those areas are waters of the United States and of the State of California, as well as being potential habitat for several special-status species of fish and wildlife. However, as explained in Sections 2.2.4, *Biological Resources* and 2.2.10, *Hydrology and Water Quality*, mitigation measures would be implemented to reduce the potential for direct and indirect effects to individuals of these species to a level that is less than significant and to reduce any potential impact to water quality during construction with the following measures: **BIO-1: General Construction Measures, BIO-2: Seasonal Avoidance of Sensitive Aquatic Species, BIO-3: Western Pond Turtle Protection Measures, BIO-4: Special-status Bird Species Protection Measures, BIO-7: Survey for Rare Plants, HYD-1: Water Quality Best Management Practices During In-water and Near Water Work Activities, and HYD-2: Water Quality Monitoring.** Further, the total area of habitat loss is less than one acre which is below that which would substantially reduce the habitat for a species or affect population dynamics or migration. This assertion would be substantiated by the issuance of several permits and other regulatory authorizations from the agencies responsible for protecting those

resources from unacceptable impacts. Refer to Section 1.7 for a list of required permits and regulatory agency approvals.

As discussed in Section 2.2.5, *Cultural Resources*, there are no historical resources or archaeological resources in the Project area. Potential impacts to inadvertently discovered archaeological resources, tribal cultural resources or human remains would be mitigated to a less-than-significant level with implementation of **Mitigation Measures CUL-1.1: Inadvertent Discovery of Archaeological Resources, CUL 1.2: Inadvertent Discovery of Tribal Cultural Resources, and CUL-2: Inadvertent Discovery of Human Remains**. No other cultural resources would be affected, and the proposed Project would not eliminate important examples of the major periods of California history or prehistory.

- b) **Less than Significant Impact with Mitigation.** Cumulative environmental effects are multiple individual effects that, when considered together, are considerable or may compound or increase other environmental impacts. The proposed Project is a replacement of a deteriorating pedestrian bridge and an improvement to water quality instrumentation reliability and efficiency. The Project's location adjacent to a National Wildlife Refuge and a pond operated by the Facility mean that there is little potential for current or foreseeable future projects to adversely affect the local environment. Current plans for the surrounding area are for habitat restoration and enhancements that could offset the small amounts of fill necessary for the bridge replacement and weir repair.

The Project's air quality impacts would 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, and BAAQMD Basic Construction Measures. As described in Section 2.2.3, *Air Quality*, the proposed Project would not result in a cumulatively considerable net increase in criteria air pollutants with the implementation of BAAQMD's Basic Construction Mitigation Measures in **MM AIR-1**. With the implementation of this mitigation measure, fugitive dust impacts would also be considered less than significant. 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 2.2.8, *Greenhouse Gas Emissions*, the proposed Project would not result in significant impacts related to greenhouse gas emissions.

The proposed Project would implement the identified mitigation measures in Section 2.2.4, *Biological Resources*, and would have either no impacts or less-than-significant impacts on riparian habitat or other sensitive natural communities, migration of species, or applicable biological resources protection ordinances. Therefore, the proposed Project would not contribute to any cumulative impact for these resources. Cumulative impacts would be less than significant.

- c) **Less than Significant Impact with Mitigation.** The proposed Project involves the replacement of the existing pedestrian bridge, repair of an existing weir and upgrades to existing instrumentation to allow the Facility to continue to monitor water quality

efficiently and safely. It would take place in an area that is not accessible to the general public and involves no changes in the landscape, land uses, services, or other aspects of human activities. It will have no measurable increase in ongoing operational or management relative to the pre-Project conditions. All potential environmental impacts identified in support of the proposed Project would be minimal/less than significant without mitigation or would be minimized via implementation of applicable mitigation measures and permit requirements.

Potential air quality impacts resulting from fugitive dust during construction would be reduced to less than significant with the implementation of **Mitigation Measure AIR-1: BAAQMD Basic Construction Mitigation Measures**. All potential hazards and hazardous materials impacts would be minimized with the implementation of **Mitigation Measures HAZ-1a: Pre-Construction Hazardous Materials Assessment, HAZ-1b: Health and Safety Plan, and HAZ-1c: Soil and Groundwater Management Plan**. The Project would not cause changes in the environment that have any potential to cause substantial adverse direct or indirect effects on human beings.

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CHAPTER 3

Report Preparation

3.1 Lead Agency

City of San José

Department of Planning, Building and Code Enforcement (PBCE)

Cassandra van der Zweep, Supervising Planner

Thai-Chau Le, Supervising Planner

Kara Hawkins, Planner

City of San José

Department of Environmental Services

Cathy Correia, Environmental Compliance Officer

Andrew Martin, Supervising Environmental Services Specialist

Catherine Borrowman, Environmental Services Specialist

City of San José

Public Works Capital Improvement Program

Scott Katric, Associate Civil Engineer

3.2 Environmental Consultants

AECOM

Casper van Keppel, PE, Senior Engineer

Wenyuan Tang, PE, Engineer

ESA

Staff Member	Role
John Bourgeois	Project Director
Erin Higbee-Kollu	Project Manager
Meryka Dirks	Project Manager
Ben Rigby	Deputy Project Manager
Raiyna Villaseñor	Deputy Project Manager
Erika Walther, Sharon Dulava,	Biological Resources

Staff Member	Role
Joseph Sanders, Rachel Brownsey	
Heidi Koenig	Cultural Resources
Brandon Carroll, Karen Lancelle	Geology, Hydrology and Hazards
Maria Hensel, Karen Lancelle	Hydrology and Water Quality
Shadde Rosenblum	Transportation