

SUNNYVALE WATER POLLUTION CONTROL PLANT MASTER PLAN – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Addendum to the Program Environmental Impact Report

Prepared for
City of Sunnyvale

October 2020



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550 Kearny Street
Suite 800
San Francisco, CA 94108
415.896.5900
esassoc.com



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CHAPTER 1

Background and Purpose of the Addendum

1.1 Background

The City of Sunnyvale (City) owns and operates the Donald M. Somers Water Pollution Control Plant (WPCP), located at 1444 Borregas Avenue in Sunnyvale, Santa Clara County (see **Figure 1**). The WPCP provides treatment of wastewater flows and loads from domestic, commercial, and industrial sources in Sunnyvale, Rancho Rinconada, and Moffett Field. The WPCP includes an approximately 16.6-acre main plant and two oxidation ponds¹ that occupy about 436 acres in total (see **Figure 2**). The WPCP was originally constructed in 1956. With the enactment of the Clean Water Act in 1972, more restrictive water quality standards were established, leading to expansion of and process upgrades to the WPCP. Currently, the WPCP processes about 13.5 million gallons per day (mgd) on an annual basis. The surrounding dry land area is primarily used for industrial and recreation purposes: the Sunnyvale Materials Recovery and Transfer Station (SMaRT Station) and the former Household Hazardous Waste Drop-off Site (“Recycle Yard”) on Carl Road abut the main plant to the east and south, respectively; the closed Sunnyvale Landfill (traversed by numerous trails) borders these facilities. The Sunnyvale West Channel forms the main plant’s western boundary; the Sunnyvale East Channel borders the landfill further east. Caribbean Drive runs east-west along the southern edge of the Sunnyvale Landfill. The San Francisco Bay Trail borders the WPCP to the west and north, and an existing entrance to the Bay Trail and a parking area are located at the west end of Carl Road.²

The City was the lead agency for the Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report (PEIR) (State Clearinghouse No. 2015062037).³ The City adopted the PEIR for the WPCP Master Plan and approved implementation of the WPCP Master Plan on August 23, 2016. The PEIR evaluated potential environmental impacts that could occur as a result of implementing the Master Plan, and provided applicable mitigation to reduce the intensity of potential environmental impacts. As part of Master Plan approval, the City adopted a Mitigation Monitoring and Reporting Program.

¹ The oxidation ponds provide biological oxidation of soluble organic material and physical removal of suspended solids that remain in the wastewater after primary clarification. The ponds also play an important role in the conversion of ammonia to nitrate for 2-3 months during the summer. Their large storage capacity provides a means for equalizing the flow of wastewater to the downstream unit processes, and for storing water to allow reduced (or zero) flow rate to the downstream processes for maintenance or other purposes.

² As part of a separate Master Plan project, the Bay Trail trailhead and parking will be relocated to Caribbean Drive.

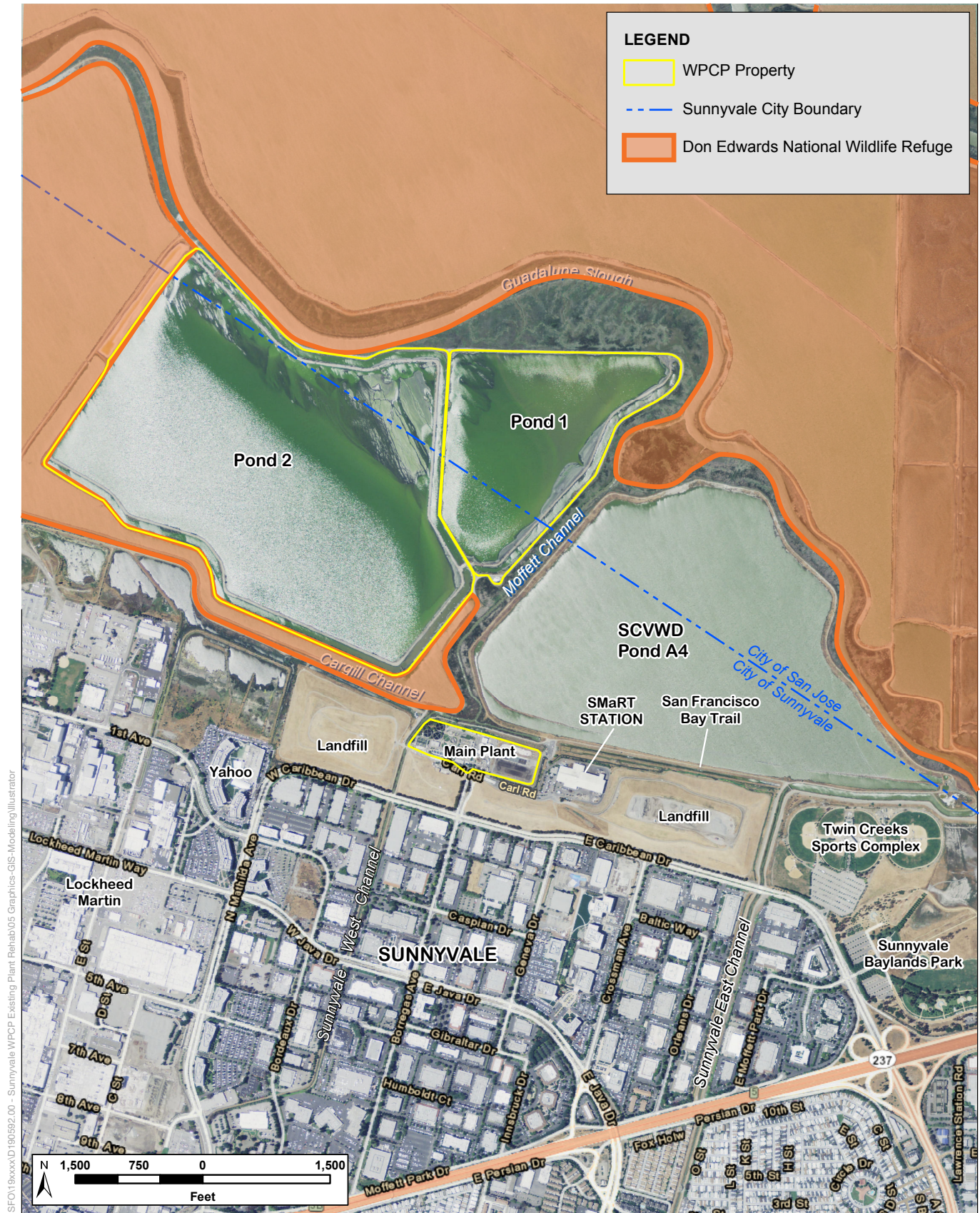
³ City of Sunnyvale, Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report, adopted August 23, 2016. The PEIR can be accessed online at <http://www.sunnyvalecleanwater.com/program-environmental-impact-report>.



SOURCE: Thomas Brothers; ESA

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 1
Site Location Map



SOURCE: H.T. Harvey & Associates; adapted by ESA

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 2
Sunnyvale Water Pollution Control Plant Area Map

Subsequent to adoption of the PEIR, projects included in the Master Plan have undergone further development. Chapter 2 of this document presents a description of the Site Preparation and Existing Plant Rehabilitation Project (Project). Chapter 3 presents an evaluation of the environmental impacts of the project as currently developed in comparison to the impacts disclosed in the PEIR. Chapter 4 summarizes the findings of the evaluation presented in Chapter 3. Chapter 5 contains mitigation measures from the approved Master Plan Mitigation Monitoring and Reporting Program.

1.2 Purpose of This Addendum

The CEQA Guidelines (Sections 15162 and 15164) allow that a lead agency may prepare an addendum to a previously certified EIR if some changes or additions to the environmental evaluation are necessary, but none of the following occurs:

1. Substantial changes are proposed in the project which will require major revisions to the EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the EIR;
 - b. Significant effects previously examined will be substantially more severe than shown;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum documents that the Project as modified subsequent to the Master Plan does not trigger any of the conditions described above.

CHAPTER 2

Project Description

2.1 Summary of Previously Approved Project

As part of the Master Plan process the City identified the need to rehabilitate or replace aging facilities to ensure that the WPCP will reliably continue to meet health and safety and water quality standards. The City also identified the need to decommission and demolish existing facilities (shown on **Figure 3**) to create space for construction of new facilities. The City previously proposed to: rehabilitate the existing 36-inch pipeline from the oxidation ponds to the fixed growth reactor distribution structure; rehabilitate the existing 60-inch primary effluent pipeline from the main Plant to Pond 2; replace an electrical substation and ancillary equipment for the pond circulation pump station; construct a new pond effluent pump station and decommission and demolish the existing one; and replace the existing boom used to collect debris upstream of the pond effluent pump station with a more accessible screening device. Within the main Plant, the City proposed to replace, rehabilitate, or upgrade equipment and piping associated with the fixed growth reactors and air flotation tanks, and to demolish the existing primary sedimentation tanks. The Master Plan noted that construction would occur throughout the main Plant as well as within the oxidation ponds area. These improvements as originally proposed were described starting on PEIR page 3-13.

The City also proposed to rehabilitate the influent sewer and to construct a perimeter flood protection wall. These improvements were described starting on PEIR pages 3-29 and 3-30, respectively.

2.2 Project Components

Following certification of the Master Plan PEIR and approval of the Master Plan, the City proceeded with design of the Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project (the Project). The Project includes the Site Preparation activities and the Rehabilitation activities described in detail below.

Site Preparation Activities

Site Preparation activities would complete early demolition and pipeline relocation work to prepare the WPCP for upcoming construction projects. These activities include demolition of existing structures, yard piping and utility demolition, construction of new sanitary sewers, storm drain relocations, dry utility relocations in conflict with future facilities, construction of a 60-inch secondary effluent pipeline, and construction of a portion of the perimeter flood wall.



SOURCE: ESA; Base Map Google Earth

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 3
Existing WPCP Process Areas

The Site Preparation activities would also include construction of temporary administration and maintenance facilities for staff use during upcoming construction projects. Most of the work for these activities would occur near the middle and front entrance of the WPCP and in Carl Road and Borregas Avenue. Components that are included as part of the Site Preparation activities are described in **Table 1** and shown on **Figures 4** and **5**.

TABLE 1
SUMMARY OF SITE PREPARATION ACTIVITIES

Component	Description
Existing Facility Demolition	<ul style="list-style-type: none"> Demolish primary sedimentation tanks, primary control building and maintenance facility, administration building, auxiliary pump station, and yard piping
Temporary Facilities	<ul style="list-style-type: none"> Construct modular trailers and pre-engineered building to house staff during construction of the new facilities
Secondary Effluent Pipeline	<ul style="list-style-type: none"> Construct a portion of the 60-inch secondary effluent pipeline
Perimeter Wall	<ul style="list-style-type: none"> Construct 300-foot long portion of the perimeter wall
Utility Relocations and Consolidation of Influent Pipeline	<ul style="list-style-type: none"> Consolidate sewer flows and demolish existing pipelines Replace conflicting storm drain and other utilities

Site Preparation Activities Within the Main Plant

The City would demolish existing facilities and construct temporary facilities and a pipeline within the main Plant site as part of Site Preparation activities.

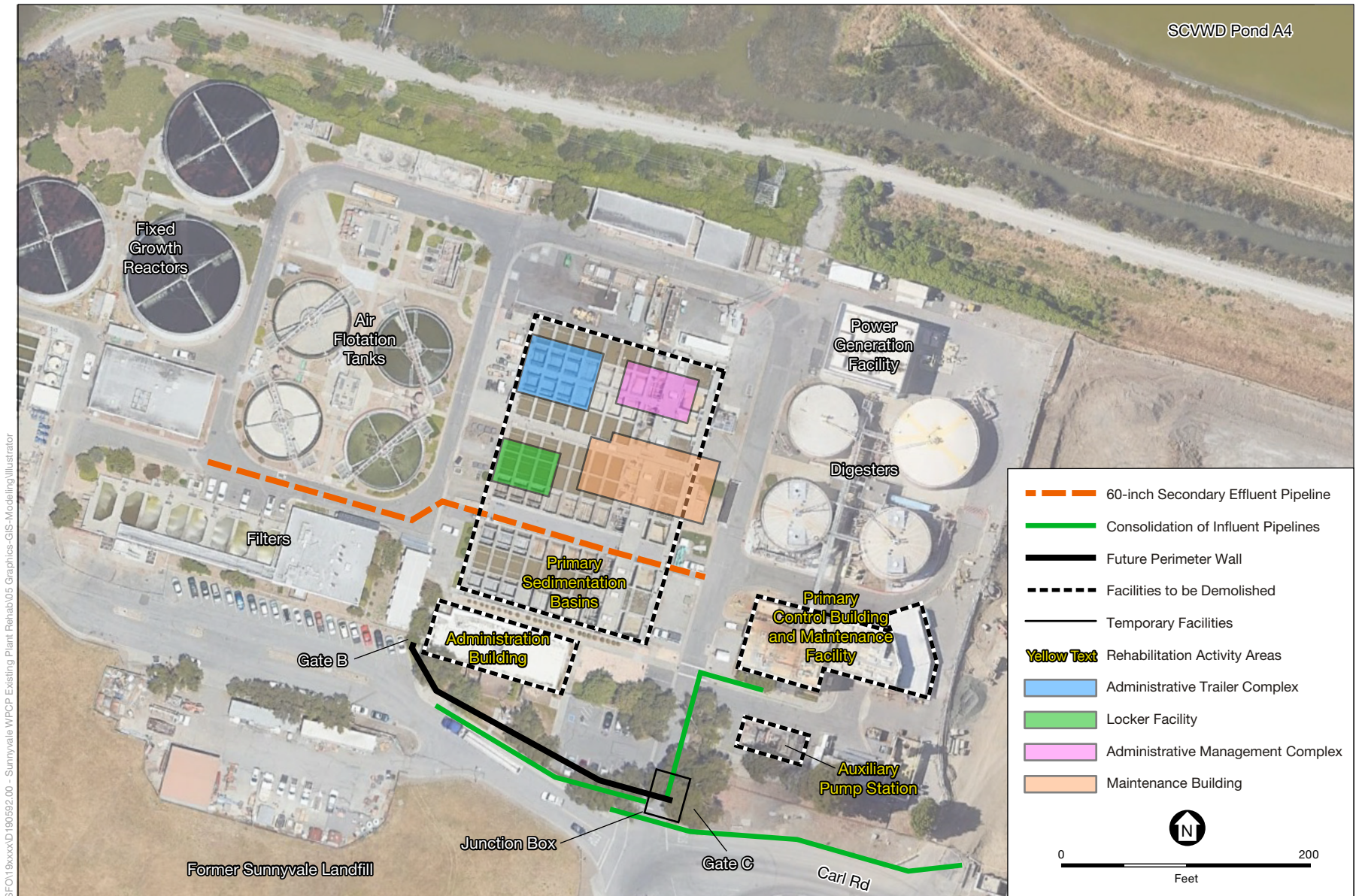
Existing Facility Demolition

Existing facilities would be demolished as part of the Project. Depending upon the schedules of other Master Plan projects, demolished facilities could include the existing primary sedimentation tanks, primary control building and maintenance facility, administration building, auxiliary pump station, and yard piping. Demolition of these existing facilities would be sequenced to allow for administration and maintenance functions to continue. Existing pipelines would be relocated as needed to accommodate demolition activities. After demolition, the area would be backfilled and compacted to prepare for construction of future facilities, and some areas within the main Plant would be paved.

Temporary Facilities

After demolition of the primary sedimentation tanks, modular trailers and a pre-engineered metal building would be constructed on top of the demolished primary sedimentation tanks to temporarily house staff during construction of the new Cleanwater Center.¹ These facilities would range in height from approximately 13 feet to 26 feet tall. Temporary staff facilities that would be constructed on top of the demolished primary sedimentation tanks area are shown on Figure 5 and include the following: Maintenance Building, Administrative Trailer Complex, Locker Facility, and Construction Management Trailers.

¹ The future Cleanwater Center is being analyzed as the Sunnyvale WPCP Cleanwater Center Project in an Addendum to the Plant Master Plan PEIR.

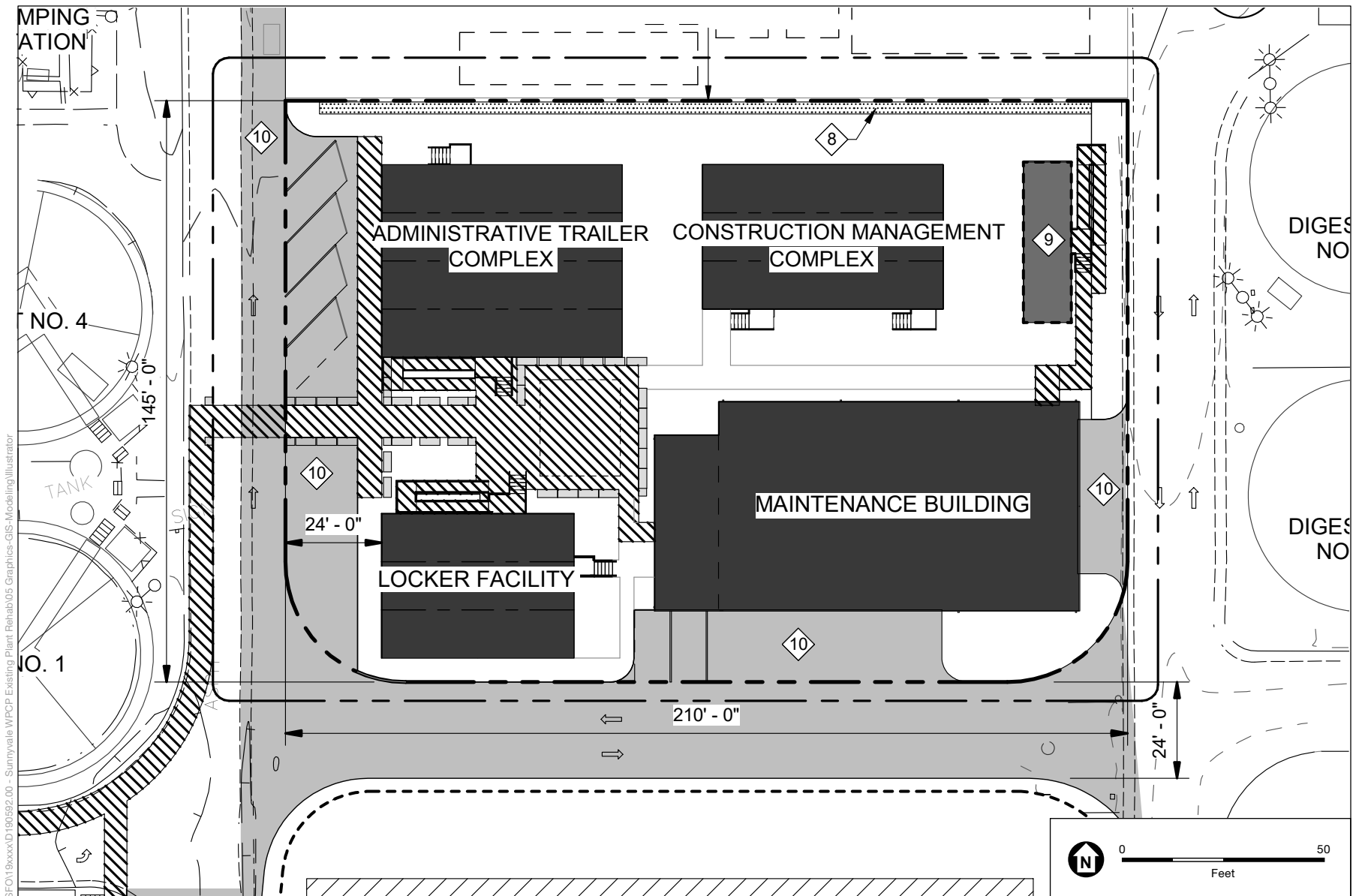


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SOURCE: ESA, 2020; Base Map Google Earth

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 4
Site Preparation Activities



SOURCE: Carollo, 2020

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 5
Temporary Facilities

Secondary Effluent Pipeline

Approximately 420 linear feet of the 60-inch secondary effluent pipeline from the Secondary Treatment and Dewatering Facilities Project² would be constructed early during the Site Preparation activities. This portion of pipeline would extend from the dual media filters to the east edge of the primary sedimentation tanks.

Perimeter Wall

The Site Preparation activities would include construction of an approximately 300-foot-long portion of the perimeter wall between future Gates B and C for flood protection (refer to Figure 4). The perimeter wall would extend vertically to an elevation of 14 feet (or approximately 4 to 8 feet above ground). The wall construction includes the installation of a hydrostatic gate that would raise up during a flood event.

Utility Relocations and Consolidation of Influent Pipelines

Relocating utilities and consolidating influent pipelines would include consolidating sewer flows into new sanitary sewer pipelines and demolishing two existing sanitary sewer pipelines. Three main new pipelines would be installed, two within Carl Road and one within the main Plant: a 42-inch sanitary sewer pipeline would be installed in Carl Road west of Borregas Avenue; a 72-inch stormwater pipeline would be installed in Carl Road east of Borregas Avenue; and one 66-inch sanitary sewer would be constructed within the main plant. These activities would also require new manholes and a sanitary sewer vault structure to combine the flows and convey them to the newly constructed Headworks. The vault structure would be used for temporary sanitary sewer bypass operations during construction. Additionally, conflicting storm drains and other utilities would be replaced to facilitate consolidation of the sanitary sewer and perimeter wall construction in the area. PG&E and AT&T utilities would also be relocated to Carl Road as necessary. Pipeline trenches would be backfilled and re-paved.

Rehabilitation Activities

The purpose of the Rehabilitation activities is to rehabilitate the WPCP's existing secondary, tertiary, and disinfection facilities to provide reliable treatment through the Master Plan planning period. These areas include the primary effluent pipeline, oxidation pond facilities, fixed growth reactors, air flotation tanks, dual media filters, chlorine contact tanks, power, and process control. The Rehabilitation activities also include integration of the existing Plant control system and perimeter wall construction. Facilities that would be rehabilitated as part of these activities are described in **Table 2** and shown on **Figures 6a and 6b**.

² City of Sunnyvale, Sunnyvale Water Pollution Control Plant Master Plan - Secondary Treatment and Dewatering Facilities, Program Environmental Impact Report Addendum, prepared by Environmental Science Associates. August 2018.

TABLE 2
SUMMARY OF REHABILITATION ACTIVITIES

WPCP Facility	Improvements
Fixed Growth Reactors	<ul style="list-style-type: none"> • Replace mechanical equipment and other process components for Fixed Growth Reactor units • Replace Fixed Growth Reactor Distribution Structure flow distribution components
Air Flotation Tanks	<ul style="list-style-type: none"> • Replace pressurization system components for Air Flotation Tanks
Tertiary/ Dual-Media Filter Facility	<ul style="list-style-type: none"> • Replace filter media, backwash piping components, and mechanical equipment • Replace filter local control consoles
Chlorine Contact Tanks	<ul style="list-style-type: none"> • Provide structural seismic upgrades to the walls of the Chlorine Contact Tanks. • Upgrade 3W (utility water) Pump Station with new pumps, piping, and other mechanical components
Automated Control System Integration	<ul style="list-style-type: none"> • Upgrade existing plant control system and software • Replace control wiring to instrumentation at existing WPCP facilities • Install new instrumentation at select locations
Perimeter Wall	<ul style="list-style-type: none"> • Construction of the perimeter wall
Oxidation Ponds	<ul style="list-style-type: none"> • Rehabilitation sections of primary effluent pipeline, repair manholes, and inspect siphon • Replace Pond Circulation Pump Station pumps, motors, and replace other mechanical equipment.
Site Electrical	<ul style="list-style-type: none"> • Replace Substation B and feeder cables to MCC-A, -B, and -C • Replace MCC-A, -B, -C within Main Plant area • Replace MCC LC-F in Oxidation Pond area • Replace conductors from new MCCs to field equipment • Install electrical duct bank with feeder cables and communication fiber

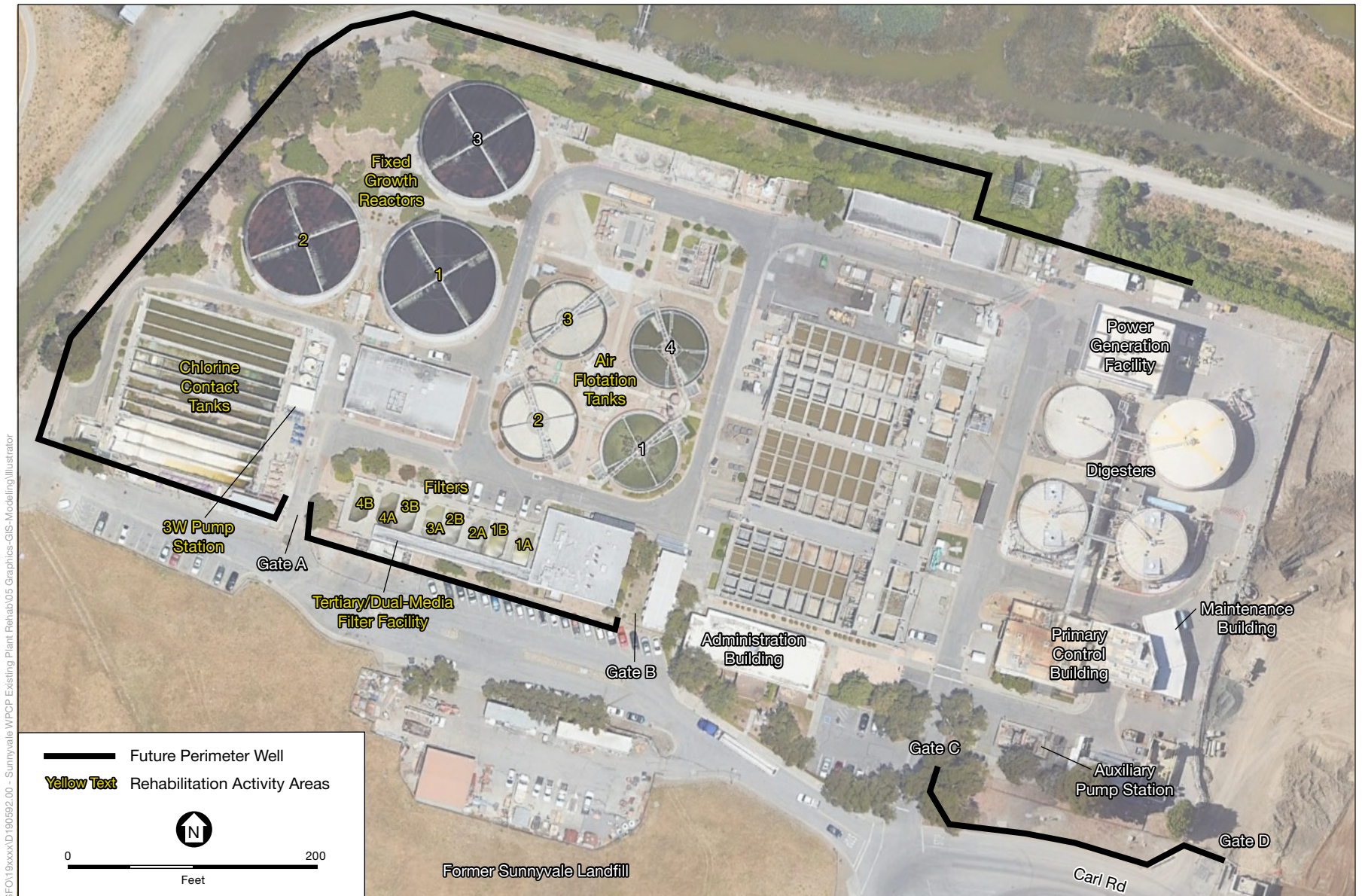
NOTE: MCC - motor control center, LC - load center

Rehabilitation Activities Within the Main Plant

The City would rehabilitate, replace, and upgrade the following facilities within the main Plant:

- **Fixed Growth Reactor Facility.** Rehabilitation at Fixed Growth Reactors 1 and 3 would include replacing the top two feet of filter media, ductwork, and rotary distributors.³
- **Air Flotation Tank Facility.** At Air Flotation Tanks 2 and 3, 12-inch pressurized piping would be replaced.
- **Tertiary/Dual-Media Filter Facility.** Rehabilitation of the Dual Media Filter (DMF) Facility (Filters 1 to 4) would include replacement of mechanical, water cycling, drainage equipment and consoles, and rehabilitation of the DMF structure.
- **Chlorine Contact Tank Facilities.** The chemical building, chlorine contact channels, tertiary treated water (3W) pump station, and analyzer room and dechlorination area would be rehabilitated at the chlorine contact tank facilities. The motor control center (MCC) and switch would be replaced at the chemical building. Rehabilitation to the chlorine contact channels and equipment would include improving the seismic load capacity. Rehabilitation to the 3W pump station would include replacement of valves, 3W pumps, a strainer, motors, drive units, filters, and yard piping. The MCC and breaker would be replaced in the analyzer room area.

³ A plenum space is a part of a building that can facilitate air circulation for heating and air conditioning systems, by providing pathways for either heated/conditioned or return airflows, usually at greater than atmospheric pressure.



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SOURCE: ESA, 2020; Base Map Google Earth

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 6a
Rehabilitation Activities at the Main Plant



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SOURCE: ESA; Base Map Google Earth

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 6b
Rehabilitation Activities Outside the Main Plant

Perimeter Wall

The rehabilitation activities would include construction of a portion of a perimeter wall for flood protection. The highest point of the perimeter wall would reach elevation 17.5 feet NAVD88; due to the varying ground elevation the wall would range from four to eight feet above current ground surface. Construction of the perimeter wall would include an approximately 300-foot-long section between Gates A and B, an approximately 300-foot-long section between Gates C and D, and the remaining 1,450-foot-long section along the western and northern boundary of the main Plant, as shown on Figure 6a. The wall will include five passive hydrostatic gates that will rise during flood conditions. Four of the gates will be for vehicle access and one gate will be for pedestrian access.

Oxidation Pond Facilities

In addition to improvements at the main Plant site, the City would rehabilitate facilities associated with the oxidation ponds.

Primary Effluent Pipeline. Approximately 850 linear feet of the existing 60-inch concrete primary effluent pipeline would be relined with a cured-in-place pipe (CIPP) as part of the Project as shown on Figure 6b. Additionally the 60-inch steel siphon that crosses under the Sunnyvale West Channel will be inspected. The siphon, which is approximately 140 linear feet, will be dewatered and cleared of sludge prior to inspection. Dewatered sludge would be treated within the Plant. If the pipeline is determined to be in poor condition it will be relined with a CIPP.

Pump Stations. Multiple components would be replaced within the pond circulation pump station shown on Figure 6b. These include Pumps 1, 3, and 4, a motor, and an air compressor. The city would also disconnect switches and breakers in the pump station. Existing Load Center F, located approximately 475 feet northwest of the pond circulation pump station on the berm north of the recirculation channel, would be demolished and replaced with a new MCC, transformer, and concrete pad just southeast of existing Load Center F. New electrical conduit connecting the new MCC with the pond circulation pump station would be trenched into the existing berm.

Automated Control System Integration and Electrical Systems

Improvements to the automated control system integration would include replacement of existing control wiring, installation of new programmable logic controllers, and upgrading control system software within multiple facilities on the main Plant site and the pond pumping stations.

The plant electrical distribution system would receive electrical improvements for the pond circulation pump station and replacement conductors for existing equipment powered from MCC-A, -B, and -C. Substation B, which supplies power to the existing Plant, would also be replaced.

2.3 Construction

Schedule and Workforce

Site Preparation activities would begin in mid-2021 and end in late 2022. Rehabilitation activities would begin in late 2021 and end in mid-2023. Refer to **Table 3** for the estimated construction schedule of each activity.

TABLE 3
CONSTRUCTION SCHEDULE

Construction Activity	Estimated Start	Estimated End	Duration (months)
Site Preparation Activities			
Carl Road Utilities Relocation	June 2021	August 2022	14
Sitework	July 2021	August 2022	13
Plant Site Utilities	September 2021	February 2022	5
Primary Sedimentation Tank Demolition	October 2021	February 2022	4
Construct Temporary Facilities at WPCP	February 2022	June 2022	4
Auxiliary Pump Station Structure Demolition	July 2022	October 2022	3
Primary Control Building and Maintenance Building Demolition	June 2022	October 2022	4.5
Administration Building Demolition	June 2022	September 2022	2.5
Perimeter Wall Construction	September 2022	November 2022	2.5
Rehabilitation Activities			
Primary Effluent Pipeline Work	December 2021	August 2022	8
Sitework	March 2022	June 2022	3.5
Site Utilities	March 2022	July 2022	4
Chlorine Contact Tank Channels	June 2022	November 2022	5.5
3W Pump Station	July 2022	September 2022	2
Fixed Growth Reactors 1 and 3	July 2022	October 2022	4
Dual Media Filters	July 2022	October 2022	3.5
Tertiary/Dual Media Filter Structure and Equipment	August 2022	September 2022	1.5
Air Flotation Tanks 2 and 3	August 2022	November 2022	3
Tertiary Control Building	October 2022	November 2022	0.5
Automated Control System Integration, Substation and Motor Control Center Work	October 2022	April 2023	5
Pond Circulation Pump Station	April 2023	May 2023	1
Perimeter Wall and Fencing	May 2023	November 2023	6

At peak construction, up to 170 construction personnel may be onsite each day. Project construction would occur within normal City working hours, weekdays between the hours of 7:00 a.m. and 6:00 p.m., and, as necessary, Saturdays between 8:00 a.m. and 5:00 p.m.⁴ Nighttime work is anticipated for operation of bypass pumping associated with the Rehabilitation activities and work within Carl Road associated with the Site Preparation activities.

Truck Trips and Equipment

A maximum of 38 one-way truck trips per day would occur due to Project construction, associated with exporting excavated waste and soil, importing fill, excavation and grading, and concrete placement activities.

Heavy equipment that would be used for construction of the Project includes the following:

- Excavator
- Grader
- Haul trucks
- Dozer/Loader
- Roller
- Paving equipment
- Concrete trucks
- Water trucks
- Crawler cranes and rough terrain cranes
- Pile drivers
- Forklift
- Pickup trucks

Temporary power (i.e., generator) would likely be needed for MCC work and bypass pumping. Water would be used during construction for activities such as dust suppression and compaction of soil. One tanker truck would provide approximately 1,300 gallons per week for construction activities.

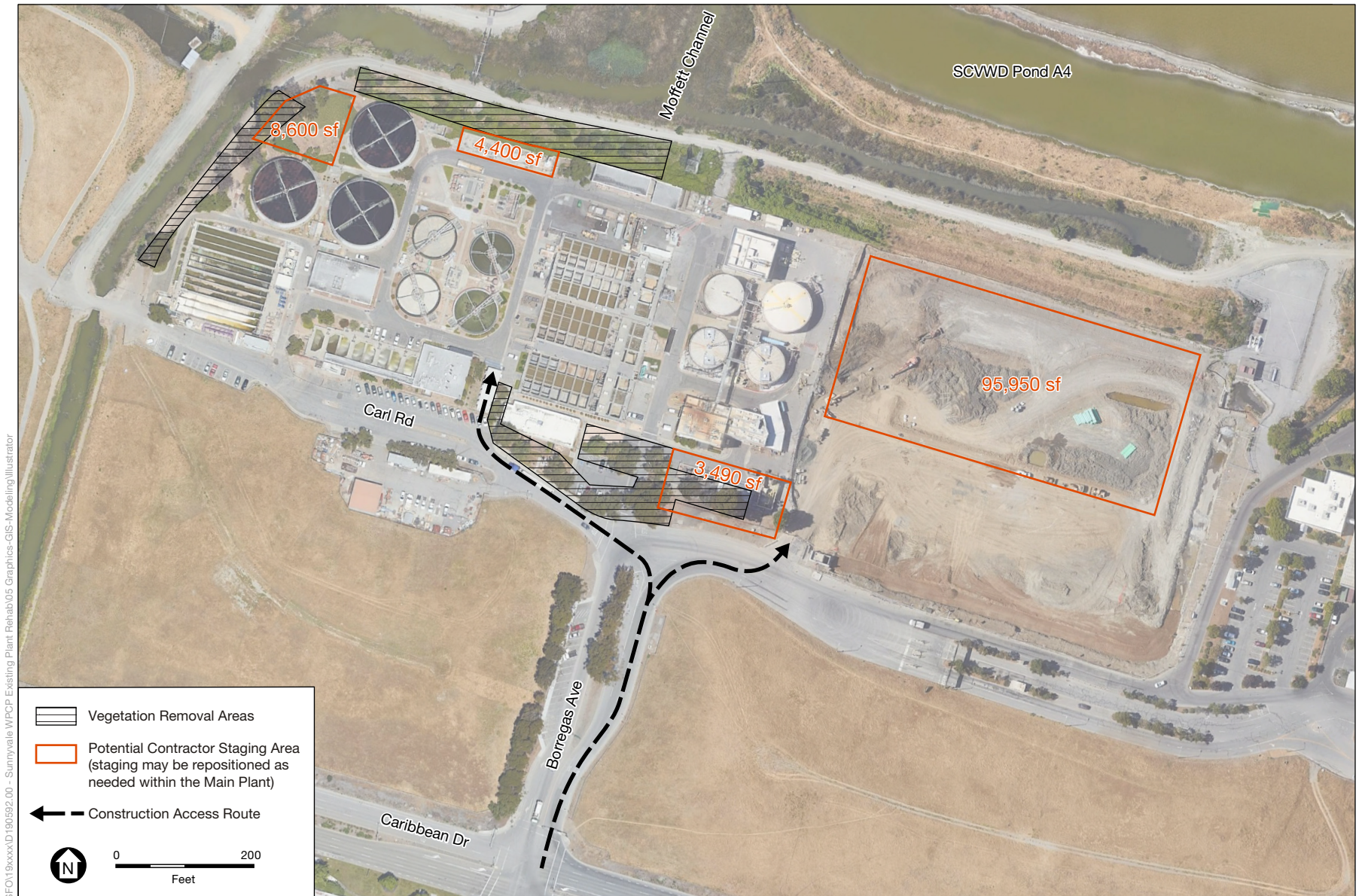
Access and Staging

Construction vehicles would access the site using Borregas Avenue and Carl Road. Construction staging and parking would occur within the main Plant site (refer to **Figure 7** for a potential staging area configuration; exact layout within the main Plant site to be determined).

Construction Activities

Construction activities detailed in Table 3 would generally require excavation, demolition, and hauling of materials. The maximum depth of excavation during construction would be approximately 32 feet deep. Approximately 298,400 cubic yards of material would be excavated over the course of project construction. Piles would be driven or augered to approximately 40 feet below ground surface to support temporary shoring during excavation activities associated with buried piping. The northern alignment of the perimeter wall would be constructed as a slurry wall, which involves excavation of a trench that is filled with a mud-water slurry before concrete is piped into the trench starting at the bottom of the trench. The displaced mud-water slurry would be collected and pumped to the headworks for treatment or solidified and taken to a landfill.

⁴ Sunnyvale Municipal Code Section 16.08.030 normally limits construction activity to these hours.



SOURCE: Carollo Engineers, 2020; Base Map Google Earth

Sunnyvale WPCP Site Preparation and Existing Plant Rehabilitation Project

Figure 7
Construction Staging, Access, and Vegetation Removal

Local dewatering would be necessary for perimeter wall construction, yard piping replacement, demolition of the auxiliary pump station, sanitary sewer vault construction, demolition of primary sedimentation tanks, and demolition of the primary control building. Dewatered groundwater would be routed towards the WPCP storm drain system, which is then routed to the preliminary treatment facilities.

The primary effluent pipeline would be rehabilitated with cured in place methods that would not require ground disturbance.⁵ Pipelines within the main Plant and Carl Road, including the new secondary effluent pipeline and influent sewer pipelines, would be constructed via methods that involve trenching.

The City would remove trees, vegetation and add fill to match surrounding grade along the northern and northwestern wall boundary and near the Carl Road and Borregas Avenue intersection, as shown on Figure 7. Trees and vegetation would also be removed along the perimeter wall boundary at the northwestern corner and southwestern side of the main Plant site.

Non-hazardous waste would be disposed of at any landfill within Santa Clara County, while hazardous waste would be sent to an appropriate disposal site. Temporary, manual lighting would be installed in locations where night work is performed and would be removed after construction activities are complete. There would be no substantial change in operation of the WPCP during construction.

2.4 Operations

Project operations would not require changes to the number of staff at the WPCP or the number of operations and maintenance truck trips at the WPCP. There is no anticipated need for storage of any new treatment chemicals or fuel at the WPCP. Changes to WPCP operations are not anticipated due to the Rehabilitation activities. The Site Preparation activities would minimize operational impacts on the WPCP by providing temporary facilities for Plant staff to work in after demolition of existing facilities. No other changes to WPCP operations or energy use are anticipated.

Stormwater runoff from newly paved areas within the main Plant would be routed to the WPCP storm drain system, which is then routed to the preliminary treatment facilities.

2.5 Required Actions and Approvals

The following actions and approvals may be required in the future by agencies with discretionary authority over specific aspects of the Project:

- California Regional Water Quality Control, Board San Francisco Bay Region
 - Construction General Permit

⁵ Cured-in-place-pipe lining uses a resin soaked felt liner that is inverted into the host pipe, and then cured in place via hot water or stream.

- Changes to landfill post-closure site operations
- San Francisco Bay Conservation and Development Commission
 - Review of Project activities within the 100-foot shoreline band to determine whether a BCDC Permit or amendment would be required

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CHAPTER 3

Evaluation of Environmental Impacts

The evaluations in the Program Environmental Impact Report (PEIR) were revisited to determine whether any changes to the analyses were warranted based on refinements to the Site Preparation and Existing Plant Rehabilitation Project (the Project). This chapter describes any changes that have occurred in the existing environmental conditions within and near the project area as well as environmental impacts associated with the project. The analysis includes consideration of the mitigation measures adopted for the Master Plan as part of the Mitigation Monitoring and Reporting Program (MMRP). Chapter 5, *Mitigation Monitoring and Reporting Program*, contains the mitigation measures from the adopted MMRP that apply to the Project.

The PEIR evaluated impacts of combinations of individual improvements as they were expected to progress at the time of PEIR preparation. The phasing for the Master Plan improvements has changed as design progressed for individual improvements. Project construction is expected to coincide with construction of the Cleanwater Center Project and Secondary Treatment and Dewatering Facilities. Project construction may also coincide with the SCVWD East-West Channels Flood Protection Project, which would provide flood protection to homes, businesses, schools, and highways to avoid transportation shutdowns and prevent potential damages, and the Google Caribbean Campus Project, which would demolish existing buildings, surface parking lots, and vegetation and construct two new five-story office buildings in the same location. Where relevant, cumulative impacts of this scenario are discussed.

The topics listed below were sufficiently addressed in the PEIR and required no additional analysis because either the nature, scale, and timing of the project has not changed in ways relevant to the topic or there has not been a substantial change in the circumstances involving the topic on the project site, nor in the local environment surrounding the site.

- **Agriculture and Forestry Resources.** The state and local land use and zoning designations with respect to agricultural and forest resources have not changed for the site and surroundings, and agricultural or forest use of the site has not commenced since adoption of the PEIR. Thus, there has not been a substantial change in the circumstances involving agricultural and forest resources at the site or surrounding areas.
- **Energy Conservation.** The construction and operation equipment and activities proposed for the project would be similar to that evaluated in the PEIR. The increased electrical demand from PG&E and SCVE for this project is within the demand estimated for Master Plan projects in the PEIR (3,100 kW). The Caribbean Drive Parking and Trail Access Enhancements Project and the Secondary Treatment and Dewatering Project are the only other Master Plan projects evaluated in the PEIR that have undergone subsequent review under CEQA. The total estimated demand of these other two WPCP projects is approximately 1,000 kW.

- **Geology, Soils, Seismicity, and Mineral Resources.** The nature, scale, and timing of the project have not changed in a manner that would exacerbate existing geologic and seismic hazards at the project site. The state and local land use and zoning designations with respect to mineral resources have not changed for the site and surroundings.
- **Land Use and Recreation.** The state and local land use plans, policies, and regulations applicable at the site have not changed since adoption of the PEIR, and the character of the project would remain industrial.
- **Noise and Vibration.** As described in Chapter 2, the Project would not involve construction activity outside of the hours of 7:00 a.m. to 6:00 p.m. The nearest residences to the main plant site are approximately 0.8 mile away and separated from the area by the intervening commercial and industrial land uses and State Route 237. The project does not include sources of noise during operations that were not evaluated in the PEIR.
- **Population and Housing.** The Project does not alter the effect of the Master Plan on treatment capacity (indirectly inducing population growth) and the types of equipment and number of construction activities occurring concurrently would be similar to that evaluated in the PEIR.
- **Public Services and Facilities.** The nature of the Project with respect to population growth and impairment of achieving service performance objectives has not changed.
- **Utilities and Service Systems.** The nature of the Project with respect to wastewater collection and treatment, water use, and solid waste disposal has not changed.
- **Mandatory Findings of Significance.** For the reasons identified above, hazardous materials effects of the Project are adequately addressed in the PEIR. One additional project (resurfacing the San Francisco Bay Trail within the City of Sunnyvale and neighboring areas) that was not identified in the PEIR occurred in the vicinity of the Project, and one project not identified in the PEIR may be under construction concurrently with the project (Google Caribbean Campus Project); these changes in the cumulative scenario would not alter the cumulative impact conclusions of the PEIR beyond the discussions included in this addendum. The effects of the Project on human beings are adequately addressed in the PEIR except for Transportation, Air Quality, Greenhouse Gas, Hydrology and Water Quality, Aesthetics, Biological Resources, and Cultural Resources impacts, which are discussed in this addendum.

Changes and additions to the PEIR discussion of the remaining topics are included below, pursuant to CEQA *Guidelines* Section 15164. The following discussion describes the environmental impacts of the project as compared to the impacts of the approved Master Plan as addressed in the PEIR adopted August 23, 2016. These additions do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; for these reasons, a subsequent EIR was not prepared.

3.1 Transportation

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

The environmental setting relevant to Transportation for the Project has not changed relative to the setting in the PEIR. Existing traffic patterns, the transit network, and alternative transportation facilities have not changed since adoption of the PEIR. Setting discussions from the adopted PEIR for this resource are therefore applicable to the entire Project area.

With respect to Issue b), the PEIR did not evaluate consistency with CEQA Guidelines Section 15064.3, Subdivision (b), as that issue was introduced as part of the December 2018 update to the CEQA Guidelines, which occurred after the PEIR was certified. Pursuant to Section 15064.3, Subdivision (b) and SB 743, the City of Sunnyvale adopted Policy 1.2.8 (Transportation Analysis Policy) on June 30, 2020, transitioning from using delay and level-of-service (LOS) to measure transportation impacts to using vehicle miles traveled (VMT). For the purposes of comparison with the PEIR, this addendum uses automobile delay for discussion and analysis though VMT remains the measure used to determine the significance of a traffic impact per the CEQA Guidelines.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all Project impacts related to transportation would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to transportation impacts from this Project.

Discussion

Since certification of the PEIR, details of the project's use of the transportation system have changed. The following discussion evaluates whether project changes would result in any new or more severe significant environmental effects than identified in the PEIR.

Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities

Local and Regional Roadways

As described in the PEIR, the Master Plan would result in a peak of 564 one-way truck trips and 84 one-way construction worker vehicle trips per day during construction. The Project would generate a maximum of 38 one-way truck trips per day during construction, and the up to 170 construction workers estimated to work on the Project would likely commute to and from the work site during peak hours. Truck trips and construction worker trips that would coincide with peak-hour traffic could impede traffic flow on local roadways, a potentially significant impact. With implementation of adopted **Mitigation Measures TR-1a, Truck Route Plan, and TR-1b, Implement a Temporary Traffic Control Plan**, this impact would be reduced to less-than-significant levels, and the impact would not be more severe than that identified in the approved PEIR.

As discussed in the PEIR, Caribbean Drive is the Congestion Management Program (CMP) system network roadway nearest to the Project area. The Project would not require changes to the number of staff at the WPCP or the number of operations and maintenance truck trips at the WPCP, and would therefore not increase the volume of traffic on Caribbean Drive. The Project would therefore not result in new significant environmental effects or increase the severity of previously identified significant effects related to the congestion management program.

Transit, Bicycle, and Pedestrian Facilities

The Project would not directly or indirectly eliminate alternative transportation corridors or facilities, nor would it include changes in adopted policies, plans, or programs that support alternative transportation. No new or more severe environmental impacts related to alternative transportation facilities would result from Project implementation.

Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)

As discussed above in *Setting*, the PEIR did not evaluate this issue, as the issue was introduced as part of the December 2018 update to the current *CEQA Guidelines*, which occurred after the PEIR was certified. Section 15064.3 of the CEQA Guidelines suggests that the analysis of VMT impacts applies mainly to land use and transportation projects. Furthermore, the City of Sunnyvale's Policy 1.2.8 (Transportation Analysis Policy) states that projects that generate or attract fewer than 110 operational trips per day would meet the Small Infill Projects exemption, meaning that the project would be exempt from further consideration with respect to VMT and impacts are assumed to be less than significant (City of Sunnyvale, 2020a). Furthermore, impacts due to construction activities would be temporary and would not result in any meaningful long-term or permanent change in VMT. Per this statewide and local guidance, since the Project is neither a land use nor a transportation project and meets the Small Infill Projects exemption, it can be assumed to have a less than significant impact with respect to VMT.

Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

During construction, while the number of haul trucks would be substantially lower than evaluated in the PEIR, traffic safety hazards could occur due to increased truck traffic with associated slower speeds and wider turning radii and where delivery and haul trucks share the roadway with other vehicles, the same impact as discussed in the PEIR. With implementation of adopted **Mitigation Measure TR-1b, Implement a Temporary Traffic Control Plan**, the impact of these potential construction traffic safety hazards would be less than significant with mitigation. There would be no change to lane or roadway configuration as part of the Project; therefore, the operational effects of the Project would be the same as those identified in the PEIR (less than significant). No new or more severe environmental impacts related to traffic safety would result from Project implementation.

Result in inadequate emergency access

The Project would not result in new or more severe adverse impacts related to emergency access because the Project would not alter access to facilities served by emergency vehicles and personnel. The Project does not include design features that would either impede or restrict emergency vehicle access. No new or more severe environmental impacts related to emergency access would result from Project implementation.

Cumulative Transportation Impacts During Construction

At the time of PEIR preparation, details typically used to determine cumulative transportation effects were not known. The PEIR estimated cumulative transportation effects by assuming a worst-case scenario in which construction peak periods overlap for most of the projects identified in the PEIR cumulative scenario (listed in PEIR Table 6-1). Project construction associated with Rehabilitation activities would overlap with construction of the Cleanwater Center Project, and may overlap with construction of the Secondary Treatment and Dewatering Facilities, the SCVWD East-West Channels Flood Protection Project, and the Google Caribbean Campus Project. It is possible that service levels along Caribbean Drive could be temporarily degraded by construction activity, a potentially significant cumulative impact. With implementation of adopted **Mitigation Measure C-TR-1, Implement Coordinated Transportation Management Plan**, the Project's contribution to a potential cumulative impact along Caribbean Drive would be less than cumulatively considerable.

Conclusion

The Project would not generate more construction vehicle trips than those identified in the previously approved PEIR and would not result in new or more severe significant impacts than identified in the previously approved PEIR during operations, and therefore would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, or conflict with an applicable congestion management program.

Implementation of adopted Mitigation Measures TR-1a and TR-1b would reduce possible impacts related to traffic safety hazards during construction of the Project to a less than significant level, and the Project would not result in any new or more significant impacts.

The Project would not result in new or more significant impacts to public transit, bicycle and pedestrian facilities, or emergency access than those identified in the previously approved PEIR.

With implementation of adopted Mitigation Measure C-TR-1 to reduce the Project's possible contribution to cumulative transportation impacts, the Project would not result in any new or more significant impacts than those identified in the previously adopted PEIR.

3.2 Air Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
AIR QUALITY — Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The air quality setting relevant to the project site, including applicable regulations and air quality conditions, has not appreciably changed since the adoption of the PEIR. The Bay Area Air Quality Management District (BAAQMD) continues to be the regional authority for air quality management in the project area and the entire San Francisco Bay Area Air Basin (Bay Area).

The Federal Clean Air Act and the California Clean Air Act both require the establishment of standards for ambient concentrations of air pollutants, called Ambient Air Quality Standards. The state and federal non-attainment status of the Bay Area has not changed since adoption of the PEIR. The Bay Area continues to experience occasional violations of ozone and particulate matter (PM₁₀ and PM_{2.5}) standards. Therefore, the project area 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 average standards, the state fine particulate matter (PM_{2.5}) annual average 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).

Air Quality Plans

Regional air quality planning in the Bay Area has proceeded since adoption of the PEIR. On April 19, 2017, the BAAQMD adopted the most recent revision to the Clean Air Plan – the *2017 Clean Air Plan: Spare the Air Cool the Climate (2017 CAP)*; BAAQMD, 2017b). The primary goals of the *2017 CAP* are to protect public health and protect the climate. The *2017 CAP* includes a wide range of control measures to reduce emissions from combustion-related activities, reduce fossil fuel combustion, improve energy efficiency, and decrease emissions of potent greenhouse gases (GHGs). Some measures focus on reducing individual pollutants such as potent

GHGs like methane and black carbon, or harmful fine particles that affect public health. Many of the measures, however, reduce multiple pollutants and serve both to protect public health and to protect the climate.

The *2017 CAP* updates the *2010 Clean Air Plan*, pursuant to air quality planning requirements defined in the California Health and Safety Code. It describes a multi-pollutant strategy to simultaneously reduce emissions and ambient concentrations of ozone, fine particulate matter, toxic air contaminants, as well as GHGs that contribute to climate change. To fulfill state ozone planning requirements, the *2017 CAP* includes all feasible measures to reduce emissions of ozone precursors—reactive organic gases (ROG) and nitrogen oxides (NOx)—and to reduce transport of ozone and its precursors to neighboring air basins. In addition, the 2017 Plan builds upon and enhances the BAAQMD’s efforts to reduce emissions of fine particulate matter and toxic air contaminants. The *2017 CAP* includes the Bay Area’s first-ever comprehensive Regional Climate Protection Strategy (RCPS), which will identify potential rules, control measures, and strategies that the BAAQMD can pursue to reduce GHGs in the Bay Area and lay the groundwork to attain the State’s ambitious GHG reduction targets for 2030 and 2050.

BAAQMD Rules, Regulations, and CEQA Guidelines

Since adoption of the PEIR, the BAAQMD CEQA Air Quality Guidelines, which were used to evaluate the potential effects of the project on air quality, faced legal challenge in the State Supreme Court. While the significance thresholds originally adopted by BAAQMD in 2011 are not currently recommended by the BAAQMD, there is no court order preventing their use, and they are frequently employed by lead agencies when conducting CEQA reviews because the most recent BAAQMD 2017 CEQA Air Quality Guidelines provide substantial evidence for the derivation of the thresholds and the approach to employing them in an air quality impact analysis (BAAQMD, 2017c). The State Court of Appeals agreed with BAAQMD that there were scenarios in which the thresholds could be used to properly assess whether and in what amount a project would add air pollutants to the environment. Consequently, the approach implemented in the PEIR remains the latest state-of-the-art guidance and no changes to the approach used in the PEIR are warranted at this time.

The WPCP is currently subject to the Operating Permit requirements of Title V of the federal Clean Air Act. BAAQMD is responsible for issuing Title V permits. The most recent permit for the WPCP (Facility #A0733) was issued in July 2018 (BAAQMD, 2018).

Sensitive Receptors

Sensitive receptors, as identified and discussed in the adopted PEIR, have not changed and remain applicable to the project. No new residential buildings, schools, colleges or universities, daycare facilities, hospitals, or senior-care facilities have been constructed closer to the WPCP than the sensitive receptors identified in the PEIR (located immediately south of State Route 237, 0.8-mile from the project site).

Findings of the Previously Adopted PEIR

The PEIR identified significant and unavoidable impacts associated with the project related to the potential to conflict with the applicable air quality plan and the potential to violate any air quality standard or contribute to an air quality violation. The extent to which the project could result in a cumulatively considerable net increase of criteria air pollutant emissions, expose sensitive receptors to pollutant concentrations, and the potential of the project to create objectionable odors affecting a substantial number of people were determined to be less than significant impacts. One mitigation measure identified in the PEIR and subsequently adopted by the City (Mitigation Measure AQ-2a) is reproduced in Chapter 5, *Mitigation Monitoring and Reporting Program*.

Discussion

Since certification of the PEIR, more information has been developed regarding construction equipment needed for the project. The following discussion evaluates whether project changes and changes in circumstances would result in any new or more severe significant environmental effects than identified in the PEIR.

Consistency with Air Quality Plan

As described in the PEIR, the BAAQMD recommends that a project's consistency with the current air quality plan be evaluated using the following three criteria:

- a) the project supports the goals of the air quality plan,
- b) the project includes applicable control measures from the air quality plan, and
- c) 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).

As detailed earlier, since approval of the PEIR, the air quality plan has been updated with the adoption of the *2017 CAP*. The primary goals of the *2017 CAP* are to protect public health and protect the climate. The BAAQMD-recommended method for determining if a project supports the goals of the current air quality plan is consistency 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 for checklist question b) regarding cumulative increase in pollutants, the project would result in a less-than-significant impact related to construction emissions with the implementation of adopted **Mitigation Measure AQ-2a, Implement BAAQMD Basic Construction Mitigation Measures**, which includes BAAQMD's applicable recommended fugitive dust control measures. The project would also result in operational emissions less than the significance thresholds. 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 control measures are considered consistent with the *2017 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) and WR2 (Support Water Conservation). While both of these measures do not contain specific emissions control strategies, the project would not be inconsistent with these measures as the project would not affect methane capture at the WPCP, would not affect production of recycled water at the WPCP, and not install combustion engines.

In addition, the *2017 CAP* contains control measure TR22 which addresses emissions from construction equipment and waste reduction measure WA4, which requires jurisdictions to develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects. TR22 uses various strategies to reduce emissions from construction and farming equipment, e.g., incentives for equipment upgrades and/ or use of renewable electricity and fuels. This is an ongoing program and has continued forward in the 2017 control strategy from the 2010 CAP. Since 2009, the BAAQMD has provided more than \$38 million to replace and/or upgrade hundreds of pieces of older, often uncontrolled equipment used in construction, cargo-handling and agricultural operations with newer units that have engines certified to the cleanest available standards. The project would benefit from this ongoing program and would not conflict with its implementation. Control measure WA4 is implemented through the City of Sunnyvale's requirements for construction and demolition waste tracking. To satisfy CalGreen standards and LEED certification requirements, demolition, construction and recycling waste weights and/or volumes are to be reported to the City using Sunnyvale using a City recommended tracking online tool. Projects must meet a minimum rate of 65 percent recycling and/or reuse of nonhazardous construction and demolition waste. The project would ensure compliance with these requirements. For these reasons, the project would not be inconsistent with nor hinder implementation of the *2017 CAP* control measures.

In summary, the project would be consistent with all three criteria listed above to evaluate consistency with the *2017 CAP* and, therefore, would not conflict with or obstruct implementation of the *2017 CAP*.

Cumulative Increase in Pollutants

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. The BAAQMD *CEQA Air Quality Guidelines* recommends using its quantitative thresholds of significance to determine if an individual project's emissions would considerably contribute to cumulative air quality impacts in the region. If a project's emissions exceed the identified significance thresholds, its contribution to cumulative air quality would be 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.

As discussed above, the PEIR disclosed significant and unavoidable impacts related to the potential to conflict with an applicable air quality plan and potential to violate air quality standards. Therefore, the contribution of the adopted PEIR to cumulative air quality was also described as being significant. The project's 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

At the time of PEIR preparation, details typically used to calculate air pollutant emissions (such as the number of pieces of each type of off- and on-road equipment and daily equipment usage rates in terms of hours per day and total days of use) were not known. The PEIR estimated the anticipated air pollutant emissions of WPCP projects by estimating the relative magnitude of construction activity compared to other, better defined projects planned at the site. The City anticipated that when project-level CEQA review of Master Plan improvements is initiated, the PEIR analysis would be reviewed considering updated construction information and analysis of air pollutant emissions would be revised accordingly. The analysis presented below presents a detailed quantification of emissions and associated impacts developed from project-specific information.

Criteria air pollutant emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would be generated by off-road construction equipment (e.g., excavators, graders, loaders). Emissions would also be generated from vehicle trips required to transport workers, equipment and materials to and from the construction sites. Emissions from off-road construction equipment and construction-related vehicle trips (employee commute trips and truck trips) were estimated using the most recent version of CalEEMod (version 2016.3.2) using the construction schedule, types of equipment and activity level, and number of construction vehicle trips provided for the project. Project construction emissions were estimated assuming that construction would begin in February 2021 and would take approximately 716 workdays to complete over a period of approximately 34 months. The exact end points for the daily construction vehicle trips are not known at this time, so the on-road emission estimates were developed using CalEEMod default trip lengths for Santa Clara County. Average daily construction emissions were estimated by dividing the total construction emissions generated over the 34-month period by the number of workdays (716). CalEEMod inputs, outputs and emissions calculations are summarized in Appendix A.

Estimated average daily emissions are shown in **Table 4** and are compared to the BAAQMD construction thresholds.

As indicated in Table 4, the average daily construction exhaust emissions would not exceed the BAAQMD's significance thresholds for construction. In addition to exhaust emissions, the PEIR evaluated emissions of fugitive dust from construction activities. As described in the PEIR, for all projects, the BAAQMD recommends the implementation of its Basic Control Mitigation Measures whether or not construction-related exhaust emissions exceed the applicable significance thresholds. The BAAQMD Basic Control Mitigation Measures were adopted by the City as Mitigation Measure AQ-2a (included in Chapter 5 of this document). Therefore, with the implementation of Mitigation Measure AQ-2a, the project's construction-related impacts associated with exhaust and fugitive dust emissions would be less than significant.

TABLE 4
AVERAGE DAILY CONSTRUCTION EMISSIONS (POUNDS/DAY)

Construction Phase	Number of workdays	ROG	NOx	Exhaust PM ₁₀ ^a	Exhaust PM _{2.5} ^a
Project Average	716	3.5	35.6	1.3	1.2
BAAQMD Construction Threshold	---	54	54	82	54
Significant Impact?	---	No	No	No	No

NOTES:

^a BAAQMD's construction-related significance thresholds for PM₁₀ and PM_{2.5} apply to exhaust emissions only and not to fugitive dust.

SOURCE: Appendix A

Operation

Once operational, the project would not increase staff at the Facility nor would it generate any new operational and maintenance truck trips to the Facility. In addition, the project does not introduce any new stationary sources of pollutants. Therefore, there would no increase in operational emissions due to the project.

As both construction and operational emissions associated with the project would be less than the respective BAAQMD significance thresholds, the project's contribution to the cumulative air quality impact in the area would be less than significant.

Exposure of Sensitive Receptors

Toxic Air Contaminants

The PEIR identified less than significant impacts with respect to exposure of sensitive receptors to toxic air contaminants (TACs) primarily in the form of diesel particulate matter (DPM). The BAAQMD recommends that health risk impacts be considered when sensitive receptors are located within 1,000 feet of TAC sources. As noted above, no new sensitive receptors are located closer to the project area than those identified in the PEIR. The nearest receptors are located over 4,000 feet from project construction area. Therefore, temporary DPM emissions generated during the construction period would not result in substantial impacts at the nearest receptors. Operation of the project would not introduce any new stationary sources of TACs, nor would it generate any new truck trips to the Facility. For this reason, the project's impacts associated with exposure of sensitive receptors to TACs would be no greater than those identified in the PEIR and would be less than significant.

Criteria Air Pollutants

The project would generate criteria pollutant emissions of ROG, NOx, and PM, as discussed under *Cumulative Increase in Pollutants* above; however, the health risk impacts of these emissions on sensitive receptors are harder to quantify. ROG and NOx, the precursors of ozone react through a series of complex photo-chemical reactions in the presence of sunlight to form ozone in the atmosphere. Many factors affect the formation of ozone including the presence of sunlight, dispersion from wind, and topography that affects wind patterns. Therefore, the impacts

of ozone are typically considered on a basin-wide or regional basis instead of a localized basis. The health-based ambient air quality standards for ozone therefore are as concentrations of ozone and not as tonnages of their precursor pollutants (i.e., NO_x and ROG). It is not necessarily the amount of precursor pollutants emitted that causes human health effects, but the concentration of resulting ozone or particulate matter. Because of the complexity of ozone formation and the non-linear relationship of ozone concentration with its precursor pollutants, and given the state of environmental science modeling in use at this time, it is infeasible to convert specific project level emissions of NO_x or ROG emitted in a particular area to concentration of ozone in that area. Meteorology, the presence of sunlight, seasonal impacts, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone (SCAQMD, 2014; SJVAPCD, 2014). Notwithstanding these scientific constraints, the disconnect between project level NO_x emissions and ozone-related health impact cannot be bridged at this time.

Odorous Emissions

The project would not include operation of an odor source. Diesel exhaust from construction equipment would generate temporary and localized odors, but would not carry over to receptors more than 4,000 feet away. Therefore, no new or more severe environmental effects related to odors would result beyond those identified in the PEIR.

Conclusion

Construction emissions associated with the Site Prep and Plant Rehabilitation projects would be below BAAQMD thresholds with the implementation of adopted Mitigation Measures AQ-2a. Operational emissions would also be less than the respective BAAQMD thresholds. In addition, the project would not conflict with or hinder implementation of any measures in the *2017 CAP*. Therefore, the project would be consistent with the *2017 CAP* and would not 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. These impacts would be less than significant.

The project would not result in additional exposure of sensitive receptors to substantial pollutant concentrations, or create additional objectionable odors affecting a substantial number of people and thus would not result in any new or more significant impacts than those identified in the previously adopted PEIR.

3.3 Greenhouse Gas Emissions

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

As a climate action leader, California has continued to demonstrate its commitment to early and aggressive action on climate change. The State Legislature and Governor have adopted ambitious targets to encourage bolder climate action, including statewide greenhouse gas (GHG) emissions reduction targets of reaching:

- 1990 levels by 2020 (Assembly Bill 32 in 2006)
- 40% below 1990 levels by 2030 (Senate Bill 32 in 2016)
- 80% below 1990 levels by 2050 (Executive Order S-3- 05 in 2005)

In September 2018, Governor Brown signed Senate Bill 100 into law, setting a state target of 100% carbon-free electricity by 2045. SB 100 also sets interim requirements for 50% renewable electricity by 2026 and 60% by 2030, superseding previously established targets. Also in September 2018, Governor Brown signed Executive Order B-55-18, which establishes a new statewide goal to “achieve carbon neutrality as soon as possible, no later than 2045, and achieve and maintain net negative emissions thereafter.”

The three planning documents identified in the PEIR— the Sunnyvale Climate Action Plan, the BAAQMD Clean Air Plan and California Air Resources Board’s (CARB) Climate Change Scoping Plan – have all been updated since PEIR approval. As discussed above in Air Quality, the BAAQMD 2017 Clean Air Plan (*2017 CAP*; BAAQMD, 2017) was released after approval of the PEIR. The City of Sunnyvale Climate Action Plan was updated in 2019 as the Climate Action Playbook (City of Sunnyvale, 2019) to include the City’s strategies to reach the state’s GHG reduction goals for 2030 and 2050. CARB’s Climate Change Scoping Plan was most recently updated in 2017 to incorporate the 2030 target established by SB 32. The 2017 Scoping Plan Update (CARB, 2017) takes into account the key programs associated with implementation of the AB 32 Scoping Plan—such as GHG reduction programs for cars, trucks, fuels, industry, and electrical generation—and builds upon, in particular, existing programs related to the cap-and-trade regulation; the low carbon fuel standard; much cleaner cars, trucks, and freight movement;

power generation for the state using cleaner renewable energy; and strategies to reduce methane emissions from agricultural and other waste by using it to meet the state's energy needs.

Findings of the Previously Adopted PEIR

The PEIR identified less than significant impacts associated with the project related to conflict with plans adopted regarding GHG emissions and generation of GHG emissions.

Discussion

Since certification of the PEIR, more information has been developed regarding construction equipment needed for the project. The following discussion evaluates whether project changes and changes in circumstances would result in any new or more severe significant environmental effects than identified in the PEIR.

GHG Emissions

Construction

At the time of PEIR preparation, details typically used to calculate GHG emissions (such as the number of pieces of each type of off- and on-road equipment and daily equipment usage rates in terms of hours per day and total days of use) were not known. The PEIR estimated the anticipated GHG emissions of Master Plan by estimating the relative magnitude of construction activity compared to other, better defined projects planned at the site. The City anticipated that when project-level CEQA review of Master Plan improvements is initiated, the PEIR analysis would be reviewed considering updated construction information and analysis of GHG emissions would be revised accordingly. The analysis presented below presents a detailed quantification of GHG emissions and associated impacts developed from project-specific information.

The combustion of diesel fuel to provide power for the operation of various construction equipment results in the generation of GHGs. Construction emissions that would be associated with the project were estimated using project-specific information such as the construction schedule, the types and number of construction equipment used, their horsepower rating, daily usage in terms of hours per day, and the number of days each piece of equipment is used within the construction period. Appendix A contains the data and assumptions used to estimate the construction-phase GHG emissions that would be associated with the project.

Construction GHG emissions for the project were derived from the CalEEMod run conducted for the analysis of air quality impacts. Construction emissions include emissions from off-road construction equipment as well as on-road motor vehicles used during construction for worker commute and transport of materials and equipment. The number of material delivery and off-haul trips varies by construction phase and are based on data provided by the City. The exact end points for the daily trips are not known at this time, so the on-road emission estimates were developed using CalEEMod default trip lengths for Santa Clara county.

Table 5 shows the GHG emissions estimated to be generated by construction activities associated with the project. As shown in the table, project construction would generate a total of approximately 2,983 metric tons carbon dioxide equivalent (CO₂e). Refer to Appendix A for details on the calculations and assumptions used to estimate construction GHG emissions. Based on a project life span of 30 years, the project's annualized construction-related GHG emissions would average 99.4 metric tons of CO₂e. The BAAQMD does not identify a significance threshold for construction-related GHG emissions. However, based on recommendation from the South Coast Air Quality Management District, amortized construction emissions could be considered with operational GHG emissions for comparison with the BAAQMD's operational GHG threshold.

TABLE 5
TOTAL ESTIMATED GHG EMISSIONS FROM CONSTRUCTION

Construction Year	GHG Emissions (metric tons)
	CO ₂ e
2021	778
2022	1,812
2023	393
Total GHG Emissions	2,983
Project Life (years)	30
Amortized GHG Emissions (metric tons per year)	99.4

SOURCE: Appendix A.

Operation

The BAAQMD requires that long-term GHG emissions from both direct and indirect sources be considered in a project's emissions inventory. Direct GHG emissions are generated onsite and include emissions from fossil fuel combustion in vehicle trips generated by a project or any stationary sources associated with a project. Indirect emissions associated with a project are typically generated from the generation of electricity used at the project, disposal of solid waste generated, and the distribution and treatment of water and wastewater conveyed to and from a project, respectively.

However, once operational, the project would not increase staff at the Facility nor would it generate any new operational and maintenance truck trips to the Facility. In addition, the project does not introduce any new stationary sources of pollutants. Therefore, there would be no increase in direct GHG emissions at the Facility over existing conditions. Once operational, the project would not change the energy requirements of the Facility, increase water use or generate wastewater and solid waste. Therefore, there would no increase in indirect GHG emissions due to the project.

Therefore, the project's only GHG emissions would be during the construction period and the amortized annual average would be well below the BAAQMD's operational threshold of 1,100 MT of CO₂e per year.

Consistency with GHG Plans, Policies, or Regulations

The 2017 CAP has 85 control measures, more than the 55 included in the 2010 Clean Air Plan. Two of the stationary source control measures are applicable to operation of water pollution control plants: WR1 (Limit GHGs from Publicly-Owned Treatment Works) and WR2 (Support Water Conservation). While both measures do not contain specific emissions control strategies, the project would not be inconsistent with these measures as the project would not affect existing methane capture at the WPCP, would not affect production of recycled water at the WPCP. Therefore, the project would not disrupt or hinder implementation of any of the GHG-related 2017 CAP control measures.

This City of Sunnyvale Climate Action Plan adopted in 2014 included strategies to reduce GHG emissions in Sunnyvale to achieve the state-recommended GHG emission reduction target of 15% below 2008 levels by the year 2020. It was also intended to streamline future environmental review of development projects in Sunnyvale by following the CEQA Guidelines and meet the BAAQMD's expectations for a Qualified GHG Reduction Strategy. The Climate Action Plan was updated as a Climate Action Playbook in 2019 which builds upon the City's past success and integrates new ideas to pave the path for meeting or exceeding the state's emissions targets of 40 percent reduction in GHG emissions by 2030 and 80 percent reduction by 2050. The City surpassed the 2014 Climate Action Plan's goal of reaching 1990 levels of emissions by 2020 and is well-positioned to meet the state's 2030 target. However, to meet the 2050 goal, the City must achieve an interim target of a 56% reduction below 1990 levels by 2030, exceeding the state's 2030 target.

The 2019 Climate Action Playbook identifies six key strategies and 18 plays associated with these strategies to achieve these reductions: promoting clean energy, decarbonizing buildings, decarbonizing transportation and sustainable land use, managing resources sustainably, empowering the community, and adapting to climate change. However, none of strategies contain measures that could be implemented at a project level for a project that generates GHG emissions primarily during construction. The project would not affect electricity usage at the Facility, construct any conditioned buildings, increase vehicle trips to the Facility or result in a change in land use and hence not conflict with the first three strategies. The other three strategies aim to manage resources sustainably, empower the community and adapt to a changing climate do not contain any project level strategies and will be implemented on a Citywide basis. As discussed earlier, construction and demolition waste generated by the project would be disposed of consistent with the City's requirements. Therefore, the project would not conflict with any strategies and measures included in the 2019 Climate Action Playbook.

In summary, the project would not result in any temporary or new permanent sources of GHG emissions that would exceed the BAAQMD's CO₂e significance thresholds. In addition, the project would not conflict with any of the GHG reduction measures either in the BAAQMD's 2017 CAP or the City of Sunnyvale Climate Action Playbook. Therefore, the project would not result in a cumulatively considerable increase in GHG emissions that would impair the State's ability to implement AB 32 and SB 32 goals.

For these reasons, the project would not result in any new or more severe environmental effects related to GHG emissions beyond those identified in the PEIR.

Conclusion

The project would not result in any new or more severe environmental effects related to GHG emissions, or conflicts with plans, policies, and regulations adopted regarding GHG emissions, than those identified in the previously adopted PEIR.

3.4 Biological Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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

The environmental setting relevant to biological resources for the master plan area, including applicable regulations, has not changed since adoption of the PEIR. However, some project components would be in areas outside of the master plan area evaluated in the PEIR. These project components are: ground disturbance associated with the perimeter wall; and the influent pipeline improvements within Borregas Avenue and Carl Road. The areas where these components would be constructed are all either ruderal, landscaped, or developed habitats.

In addition, guidance from the United States Fish and Wildlife Service on the federal Endangered Species Act has changed to include noise disturbances to protected species in potential foraging

habitat (Affonso, 2020); previous guidance had focused on limiting disturbance to potential breeding habitat. Setting discussions from the adopted PEIR for the Master Plan, biological communities, special-status species are applicable to the project.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to biological resources would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces select adopted mitigation measures applicable to biological resources, with revisions as discussed in this section.

Discussion

As noted above, most project components would result in ground disturbance, building demolition, and vegetation removal within areas that were evaluated for these activities in the PEIR. However, the perimeter wall and influent pipeline improvements would occur in areas not evaluated for impacts in the PEIR. The project would not result in substantial adverse effects on riparian habitat or protected wetlands, or conflict with provisions of an approved conservation plan, because project activities would not occur within these sensitive habitats and no approved habitat conservation plans encompass the project area. Impacts on special-status species and on other biological communities, and impacts related to conflicts with policies or ordinances protecting biological resources, are discussed below.

Special-Status Species

Special-status Plants

Implementation of the project could potentially impact one special-status plant species, Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), which has the potential to occur within the project area. However, implementation of adopted **Mitigation Measure BIO-1a, Reduce Impacts on Congdon's Tarplant**, would reduce impacts to less-than-significant levels.

Special-status Animals

California Ridgway's Rail and California Black Rail. Habitat suitability for California Ridgway's rail was recently reevaluated based on more recent surveys along Guadalupe Slough and habitat assessment along Moffett Channel (ESA, 2020). The habitat reevaluation also would be applicable to California black rail. The PEIR identified the tidal brackish marsh along Moffett Channel as potential foraging habitat for these species. The recent habitat assessment concluded that marginally suitable breeding habitat exists in Moffett Channel near the pond circulation pump station. Approximately 1.8 acres of marginally suitable breeding habitat potentially would be affected by construction noise at the pond circulation pump station. Coastal brackish marsh marginally suitable for foraging is also present in Moffett Channel north of the Main Plant, and about 2.7 acres of marsh potentially would be affected by increased noise from construction activities in this location.

While there is some potential for noise-related disturbance to individual foraging or nesting California Ridgway's rails or California black rails during construction activities, due to the low population sizes of these species in the relevant portions of Moffett Channel, impacts on individual California Ridgway's rails and California black rails would not be considered significant (Liu et al., 2012; OEI, 2019). All potential impacts on California Ridgway's rail and California black rail would be reduced to a less-than-significant level with implementation of **Mitigation Measures BIO-2a, Worker Environmental Awareness Training; BIO-2b, Minimization of Impacts on Water Quality**, to address potential water-quality impacts during construction; and **BIO-2f, California Ridgway's Rail and California Black Rail Measures**. These measures have been adjusted as necessary to make them apply to the Project. The adjusted mitigation measures do not change the original impact conclusions from the PEIR, nor are they considerably different from those analyzed in the PEIR.

Mitigation Measure BIO-2a: Worker Environmental Awareness Training

The City will retain, or require the contractor to retain, a qualified biologist to conduct mandatory contractor/worker environmental awareness training for all construction personnel working on project activities outside of the main plant, ~~including but not limited to Ponds 1 and 2, the diurnal equalization and emergency storage basins, channel levees, and the Bay Trail parking relocation area.~~ The awareness training will be provided to all construction personnel to brief them on the potential for special-status species to occur on the site, the need to avoid effects to special-status species and their habitats, and all project mitigation measures pertaining to biological resources and water quality. If new construction personnel are added, the contractor will ensure that the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a special-status species or who finds a dead, injured, or entrapped individual. The representative's name and telephone number will be provided to the City prior to the initiation of construction activities outside of the main plant.

Mitigation Measure BIO-2b: Minimization of Impacts on Water Quality

The following measures will be incorporated into the construction stormwater pollution prevention plan and implemented during construction of Master Plan improvements to avoid or minimize impacts on water quality:

- Earth-moving in areas draining to wetlands and aquatic habitats will not occur during days when rain is occurring or predicted to occur (i.e., greater than 40 percent chance) during the work period. This measure applies to all Project areas with potential to drain to wetlands or aquatic habitats, particularly in or adjacent to ~~the Southeast Channel, the Sunnyvale West Channel, the Cargill Channel, Moffett Channel,~~ Ponds 1 and 2, and SCVWD Pond A4.
- All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts ~~associated with Master Plan activities.~~ Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association "Stormwater Best Management Practices Handbook," available at www.casqa.org.

- Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels.
- No fueling shall be done in areas immediately adjacent to (i.e., within 50 feet of) channels, ponds, or wetlands. For stationary equipment that must be fueled on site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channels, ponds, or wetlands shall not be fueled in these sensitive habitat areas or the immediate floodplains surrounding them.
- A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors ~~working on the Master Plan~~, with at least one copy of the plan located onsite at all times. The purpose of the plan is to provide onsite construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction activities. The primary objective of the plan is to prevent a spill of hazardous materials. Elements of the plan will include, but are not limited to the following:
 - A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;
 - Materials Safety Data Sheets for all chemicals used and stored on site;
 - An inventory list of emergency equipment;
 - Spill control and countermeasures including employee spill prevention/response training;
 - Notification and documentation procedures; and
 - A monthly reporting plan.
- Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area (existing construction yards or legally operating car washes) ~~as described above for Mitigation Measure BIO-1b~~. No washing of vehicles will occur in work areas located outside of the main plant fence line.
- The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. This measure includes work all Master Plan areas located outside of the main plant fence line. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from work ~~Master Plan~~ areas located outside of the main plant fence line.

- Stockpiled materials outside of the main plant fence line will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as the channels, ponds, and wetlands). Heavy equipment will not be operated in the active channels or within wetland habitats, but instead from existing hardscape, access roads, and levees.
- Water conservation methods will ensure that water used in the ~~work Master Plan~~ area does not create surface flows capable of carrying pollutants to the nearby creek channel. All personnel, including sub-contractors will be instructed on the practical methods of preventing leaks or over-use of watering, and will be required to adhere to the practices in the detail sheets provided. Woody debris from tree trimming, and other activities will not be left in the active channels or in wetland habitats.
- ~~In-channel vegetation removal may result in increased local erosion in the channels due to increased flow velocity. To minimize such erosion, the toe of the bank will be protected by leaving vegetation within the channel to the maximum extent practicable.~~
- ~~Cofferdams or silt fencing will be used to the extent feasible during construction and maintenance activities that could potentially result in substantial siltation of open water. For any work within aquatic or wetland habitats, such as Ponds 1 and 2 or Cargill Channel, silt curtains will be installed to prevent suspended sediments from migrating out of the immediate work area, and dredging will be conducted on incoming tides to the extent feasible to further reduce the potential for sediment mobilization outside the work Master Plan area. Dredging within aquatic or wetland habitats will be conducted with a closed clamshell style dredge to reduce the amount of suspended sediment produced. Dredge volumes will be documented to ensure compliance with and adequate performance of these measures.~~

Mitigation Measure BIO-2f: California Ridgway's Rail and California Black Rail Measures

The following measures will be implemented for activities outside of the main plant fence line to avoid and minimize impacts on California Ridgway's rails and California black rails, particularly in tidal marsh habitats associated with the Moffett Channel:

- Impacts on tidal wetland habitat of these species will be avoided ~~minimized to the extent feasible~~. Tidal wetland habitat for these species occurs in the northern portions of the ~~work Master Plan~~ area, in association with the Moffett Channel. Suitable tidal wetland habitat for these species is not present within the main plant fence line.
- To avoid causing the abandonment of an active nest, construction activities within 700 feet of vegetated tidal marsh providing suitable breeding habitat for Ridgway's rails or black rails (i.e., the area along Moffett Channel north of the point where the marsh begins to widen ~~near the pond circulation pump station just upstream from its confluence with Guadalupe Slough, or the large marsh area along Guadalupe Slough north of Pond 1~~) will be avoided during the breeding season from February 1 through August 31 ~~unless protocol-level surveys are conducted to determine rail locations and territories the same year in which those construction activities occur. If breeding~~

~~Ridgway's rails or black rails are determined to be present, activities will not occur within 700 feet of areas in which Ridgway's rails or black rails were heard calling during protocol level surveys. If the intervening distance across a major slough channel (e.g., Moffett Channel or Guadalupe Slough) or across a substantial barrier between the locations of rail detections and any construction activity area is greater than 200 feet, then it may proceed at that location within the breeding season.~~

- Aside from continued use of recreational trails established prior to the start of the breeding season (which may continue), only routine inspection, maintenance, or monitoring activities that have little potential for effects on rails due to their short durations, distance from rail habitat, or low-magnitude effects may be performed during the breeding season in areas within or adjacent to rail breeding habitat. Otherwise, with USFWS and CDFW approval on a case-by-case basis, construction activities may take place after July 15 in a given area if the activity is thought to be minimally disturbing to breeding rails.
- The extent of impacts near ~~on~~ tidal marsh will be clearly demarcated in the field prior to construction, and no impacts (including construction access) will occur outside those limits.
- Silt fencing or similar material will be installed at the perimeter of work areas, between all areas of earth-moving and marsh ~~outside the impact area~~ to prevent dirt and other materials from entering marsh areas that are not intended to be affected.
- No animals can be brought to the project site to avoid harassing, killing, or injuring wildlife.
- The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction and dredging.
- Nighttime work near tidal marsh habitat will be avoided ~~to the extent feasible. If nighttime work cannot be avoided, lighting will be directed to the work area and away from tidal marsh habitat.~~

Burrowing Owl. The burrowing owl is known to occur, at least during the nonbreeding season, in the project vicinity on the closed landfill areas near the main plant, southwest of the former household hazardous waste dropoff site, and west of the Sunnyvale West Channel (Chromczak, 2014). Burrowing owls were formerly known to occur on berms around the eastern portion of the main Plant area (Chromczak, 2014), but they have not been recorded on the main Plant in recent years.

No impact on habitat used regularly by burrowing owls is expected to occur. However, if construction activities were to occur in occupied burrowing owl habitat, individual burrowing owls may be killed or injured in burrows during earth-moving activities from destruction of burrows by equipment. Construction of the perimeter wall, infrastructure along the levees, such as the new electrical conduit on the berm adjacent to the Pond 1 return channel and the primary effluent pipeline adjacent to Cargill Channel, and any other construction outside of the plant site boundary, may disturb owls in nearby areas. The loss of an individual owl or an active nest, through direct impact or (most likely) abandonment, would represent a significant impact under

CEQA because of the species' regional rarity and population declines. Therefore, Mitigation Measures BIO - 2a, Worker Environmental Awareness Training (shown above) and BIO-2e, Burrowing Owl Measures, would be implemented to reduce potential impacts on burrowing owls to a less-than-significant level. This measure has been adjusted as necessary to make it apply to the Project. The adjusted mitigation measure does not change the original impact conclusions from the PEIR, nor is it considerably different from that analyzed in the PEIR.

Mitigation Measure BIO-2e: Burrowing Owl Measures

The following measures will be implemented to avoid and minimize impacts on burrowing owls in the Master Plan work area, particularly on the closed landfill and along the Sunnyvale West Channel but also including areas within the main plant fenceline that may support ground squirrel burrows:

- Preconstruction surveys for burrowing owls will be conducted by a qualified biologist prior to all construction activities that occur within 250 feet of potential burrowing owl habitat on the closed landfill or along the Sunnyvale West Channel, in conformance with CDFW protocols. This measure applies to construction activities inside of the main plant fenceline only where ground squirrel burrows are present or for those activities located within 250 feet of suitable burrowing owl habitat on the closed landfill or Sunnyvale West Channel. The final survey will occur no more than 2 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading, or any similar activity within 250 feet of suitable habitat that could disturb nesting owls. If no burrowing owls are located during these surveys, no additional action would be warranted. However, if burrowing owls are located on or immediately adjacent to impact areas, the following measures would be implemented.
- If burrowing owls are present during the nonbreeding season (generally 1 September to 31 January), the City/contractor would maintain a 150-foot buffer zone, within which no new Master Plan-related activity would occur, around the occupied burrow(s) if feasible. However, this buffer distance would not apply to existing operations and maintenance activities in the main plant. A reduced buffer distance is acceptable during the nonbreeding season as long as construction avoids direct impacts on the burrow(s) used by the owls. During the breeding season (generally 1 February to 31 August), a 250-foot buffer, within which no new Master Plan-related activity would be permissible, would be maintained between Master Plan activities and occupied burrows. Owls present at burrows on the site after 1 February would be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area would remain in effect until 31 August, or based upon monitoring evidence, until young owls are foraging independently or until the nest is no longer active.
- In the unlikely event that an occupied burrowing owl burrow is within the construction footprint (e.g., on the bank of a levee), and the burrow cannot be avoided, the owl will be evicted from the burrow by a qualified biologist using one-way doors. The biologist will leave the one-way doors in place for at least 48 hours, checking them daily to ensure that they are functioning properly. If the biologist cannot be certain that the owl is outside the burrow (e.g., if the one-way doors were installed when the owl was inside the burrow and the owl cannot be detected outside

later), then the burrow will be excavated by hand prior to being filled to ensure that no owl is trapped inside. Otherwise, the burrow will be backfilled after the owl has been evicted. No burrowing owls will be evicted from burrows during the nesting season unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season).

Salt Marsh Harvest Mouse. The brackish tidal marsh in Moffett Channel north of the plant is considered potential salt marsh harvest mouse habitat but the vegetation is fragmented and the potential for salt marsh harvest mice to occur in these marshes is fairly low but cannot be discounted. Salt marsh harvest mice are not expected to occur in coastal brackish marsh dominated by pure stands of cattail and California bulrush along Sunnyvale West Channel and Moffett Channel adjacent to the main Plant or in the small amounts of brackish marsh in Cargill Channel and Ponds 1 and 2 where patches are isolated and narrow (10 feet wide or less). The motor control center (MCC) several hundred feet northwest of the pond recirculation pump station is adjacent to poor but potentially suitable salt marsh harvest mouse habitat.

Equipment noise and vibration during construction may interfere with normal behaviors. These behaviors include feeding, sheltering, movement between refugia and foraging grounds, and other essential behaviors. Intolerable levels of disturbance that may force individual mice to flush from cover or prevent them from seeking available cover could expose them to a predation risk that otherwise would not occur. Given the lack of high-quality habitat near the construction areas, implementation of modified **Mitigation Measure BIO-2g, Salt Marsh Harvest Mouse Measures**, would reduce impacts to less-than-significant levels. This measure has been adjusted as necessary to make it apply to the Project. The adjusted mitigation measure does not change the original impact conclusions from the PEIR, nor is it considerably different from that analyzed in the PEIR.

Mitigation Measure BIO-2g: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Measures

The following measures will be implemented for activities outside of the main plant fence line to avoid and minimize impacts on the salt marsh harvest mouse ~~and salt marsh wandering shrew~~, particularly ~~in-by~~ marsh habitat associated with the Moffett Channel, Cargill Channel, and the MCC northwest of the pond circulation pump station:

- Impacts on pickleweed and wetland habitat that may support ~~this these~~ species will be ~~avoided~~ minimized to the extent feasible. Wetland habitat that may support these species occurs in the northern portion of the ~~Master Plan work~~ area, in association with the Moffett Channel and the Cargill Channel. No suitable habitat for these species occurs within the main plant fence line.
- To avoid the loss of individual harvest mice or wandering shrews from any, no excavation, fill, or construction activities in suitable habitat, vegetation removal and fill in marsh habitats, including the Moffett Channel and the Cargill Channel, will ~~occur be limited to the minimum amount necessary to implement the Master Plan improvements. Wherever feasible, sufficient pickleweed habitat will remain adjacent to the activity area to provide refugia for displaced individuals.~~

- ~~In areas where salt marsh harvest mice or wandering shrew habitat will be affected, vegetation and debris that could provide cover for mice will be removed using only hand tools at least three weeks prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. The vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. In some cases, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or wandering shrews present are able to escape to cover that will not be affected), whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area, and whether any berms are necessary to allow mice or shrews to disperse across wetted channels.~~
- Following the hand removal of vegetation in areas where these species may be affected, Exclusion fencing will be erected as needed between construction areas and harvest mouse/wandering shrew habitat that is to remain unaffected to define and isolate protected habitat for ~~this~~ these species. This fencing will consist of heavy plastic sheeting or metal material that cannot be climbed by harvest mice or wandering shrews, or similar Resource Agency Service-approved exclusion materials, buried at least 4 inches below the ground's surface and with at least 1 foot (but no more than 4 feet) above the ground. All supports for the fencing will be placed on the inside of the work area. A 4-foot buffer will be maintained free of vegetation around the outside of the exclusion fencing. The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when ~~they are~~ damage is found. If any breaks in the fencing are found, a qualified biologist will inspect the work area for salt marsh harvest mice or wandering shrews. If any individual harvest mice are found within the impact footprint, they will be allowed to move on their own (although shrews may be relocated by a qualified biologist) to vegetated areas outside the impact footprint.
- During construction in areas where salt marsh harvest mice and wandering shrews may be affected, a qualified biologist will check underneath vehicles and equipment for ~~this~~ these species before such equipment is moved during each day of construction, unless the equipment is surrounded by exclusion fencing. ~~Based on current design concepts, the Master Plan is expected to affect approximately 1.5 acres of tidal coastal brackish marsh (in the Moffett Channel) and another 0.5 acre of non-tidal salt marsh (in the Cargill Channel) that could potentially support these species through raising (and as a result widening) an access road and construction of a new pipeline segment to the diurnal equalization basins. To compensate for these habitat impacts, the City will provide mitigation through a combination of (a) the purchase of credits in an approved conservation bank that provides habitat suitable for use by these species and/or (b) tidal marsh habitat restoration onsite or offsite. Owing to the relatively low quality of habitat provided by the wetlands to be affected by Master Plan activities, this mitigation will be provided at a minimum ratio of 1:1 (mitigation:impact) on an acreage basis. This mitigation can be provided using the same mitigation area as described in Mitigation Measure BIO-3b for wetlands as long as the habitat is suitable for the salt marsh harvest mouse and salt marsh wandering shrew and provides vegetated wetlands adequate to compensate for impacts on these species' habitats at a 1:1 ratio.~~

- ~~• Prior to construction, the City will purchase credits from an approved conservation bank and/or prepare a Habitat Mitigation and Monitoring Plan (HMMP) describing the proposed creation of mitigation habitats that will satisfy the mitigation requirements. Impacts on habitat of the salt marsh harvest mouse and salt marsh wandering shrew may not commence until the adequate credits in a conservation bank have been purchased and/or the City prepares the HMMP. The HMMP will be prepared by a qualified restoration ecologist and will include the following:

 - ~~— A summary of impacts on these species' habitats and the proposed mitigation acreage~~
 - ~~— Goals of the restoration to achieve no net loss of habitat functions and values for these species~~
 - ~~— The location of the mitigation site and description of existing site conditions~~
 - ~~— Mitigation design:

 - ~~▪ Existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicable~~
 - ~~▪ Grading plan if appropriate, including bank stabilization or other site stabilization features~~
 - ~~▪ Soil amendments and other site preparation elements as appropriate~~
 - ~~▪ Planting plan~~
 - ~~▪ Irrigation and maintenance plan~~
 - ~~▪ Construction schedule~~~~
 - ~~— Monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). Performance criteria will include demonstration of the presence of appropriate vegetation for these species within 10 years of mitigation implementation and presence of at least one of these two small mammal species within 10 years of the establishment of appropriate vegetated habitat.~~
 - ~~— A contingency plan for mitigation elements that do not meet performance or final success criteria; this plan will include specific triggers for remediation if performance criteria are not being met.~~~~

Biological Communities, Local Policies and Ordinances

The perimeter wall would be constructed along the north and west edges of the main Plant site and in portions of the south end of the main Plant site (Figure 6a). The construction of the perimeter wall would occur in ruderal habitats or developed areas. The construction will necessitate the removal of existing ornamental trees, which could be protected under the City of Sunnyvale Municipal Code if they are over 38 inches in circumference. If any trees were ordinance-sized, tree removal would conflict with the City's tree ordinance, would be a potentially significant impact. Trees with potential habitat for nesting birds would be removed in

the areas outside of the present plant fence line. Potential impacts of tree removal would be reduced to less-than-significant levels with implementation of modified **Mitigation Measures BIO-2a, Worker Environmental Awareness Training**, and adopted **Mitigation Measures BIO-2h, Nesting Bird Measures**, and **BIO-4a, Avoidance and Preservation of Trees**.

The relining of the primary effluent pipeline under Cargill Channel and Pond 2 will pass under but not disturb open water, ruderal/non-native grassland, developed, northern coastal salt marsh, and coastal brackish marsh habitats.

Conclusion

With implementation of adopted Mitigation Measures BIO-1a and BIO-2h, and modified Mitigation Measures BIO-2a, BIO-2b, BIO-2e, and BIO-2f, the Project would not result in any new or more significant impacts on special-status wildlife and plants than those identified in the certified PEIR.

With implementation of adopted Mitigation Measures BIO-2a and BIO-2h, the Project would not result in any new or more significant impacts to sensitive natural communities, riparian habitats, or wetlands during construction and operation compared to those identified in the certified PEIR.

With implementation of adopted Mitigation Measures BIO-1a and BIO-2h, and modified Mitigation Measures BIO-2a, BIO-2b, BIO-2e, and BIO-2f, impacts related to movement of wildlife species or use of wildlife nursery sites caused by the Project would not result in any new or more significant impacts than those identified in the certified PEIR.

With implementation of adopted Mitigation Measure BIO-4a, the Project would not result in any new or more significant impacts on protected trees than those identified in the certified PEIR.

The current Project is outside of the Santa Clara Valley Habitat Conservation Plan /Natural Community Conservation Plan (HCP/NCCP) permit area. Therefore, the Project would not result in any new or more significant impacts than those identified in the certified PEIR.

3.5 Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
HYDROLOGY AND WATER QUALITY —				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The environmental setting relevant to hydrology and water quality for the project site has not changed since adoption of the PEIR, with the exception of two NPDES permits under which the Sunnyvale WPCP is permittee or co-permittee (described below). Setting discussions from the adopted PEIR for water quality standards, groundwater, surface water drainage patterns, and flood and inundation hazards are applicable to the project.

Effective April 1, 2020, Order No. R2-2014-0035 (Waste Discharge Requirements for Sunnyvale Water Pollution Control Plant and wastewater collection system) issued by the San Francisco Bay Regional Water Quality Control Board [RWQCB] was rescinded and replaced by Order No. R2-2020-0002 (RWQCB, 2020). This order sets effluent limitations and discharge specifications for

water discharged to Moffett Channel and San Francisco Bay from the Sunnyvale WPCP. The effluent limitations in the order are the same as shown in PEIR Table 4.10-7 with the exception of enterococcus bacteria, nickel, cyanide, and bis (2-Ethylhexyl) phthalate. The revised numeric effluent limitations are listed in **Table 6**, below.

TABLE 6
SELECT REVISED NUMERIC EFFLUENT LIMITATIONS FOR THE WPCP

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Other
Previous Order					
Enterococcus bacteria	Not Applicable	-	-	-	30-day mean not to exceed 35 colonies/100 mL
Nickel ^b	µg/L	24	-	35	-
Cyanide, Total ^b	µg/L	7.5	-	17	
Bis (2-Ethylhexyl) Phthalate ^b	µg/L	5.9	-	12	
Turbidity	NTU	-	-	-	Instantaneous maximum limit of 10 NTU
Revised Order					
Enterococcus bacteria	Not Applicable	-	-	-	Six-week mean not to exceed 30 colonies/100 mL No more than 10% samples > 110 CFU/100 mL
Nickel ^b	µg/L	24	-	33	-
Cyanide, Total ^b	µg/L	7.0	-	17	-
Bis (2-Ethylhexyl) Phthalate ^b		n/a	n/a	n/a	n/a
Turbidity	NTU	-	-	-	Instantaneous maximum limit of 10 NTU From October 1 through May 31, only applies when total suspended solids exceeds 20 mg/L

NOTES:

^a Unit Abbreviations: mL = milliliters; µg/L = micrograms per liter; NTU = Nephelometric Turbidity Units; CFU = Colony Forming Units

^b Limitations apply to the average concentration of all samples collected during the averaging period (daily ~ 24-hour period; monthly ~ calendar month)

SOURCE: RWQCB, 2020

Effective January 1, 2018, Order No. R2-2012-0096 (Mercury and PCBs Watershed Permit, NPDES No. CA0038849) issued by the San Francisco Bay RWQCB was rescinded and replaced by Order No. R2-2017-0041. The Sunnyvale WPCP is co-permittee to this order, which sets requirements for mercury and PCB concentrations in the WPCP effluent. The effluent limitations for average monthly and maximum daily PCB concentrations are the same as those specified for the Sunnyvale WPCP in the previous order and shown in PEIR Table 4.10-7. Similarly, the effluent limitations for average weekly and monthly mercury concentrations are the same as shown in PEIR Table 4.10-7.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to hydrology and water quality would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to hydrology and water quality impacts from this project.

Discussion

The project would not change the wastewater treatment technologies beyond what was evaluated in the PEIR, and therefore would not alter treated water quality. However, the perimeter wall and influent pipeline improvements would occur in areas not evaluated for impacts in the PEIR. The following discussion focuses on impacts on stormwater quality, groundwater and flooding during construction and operations compared with the analysis conducted in the adopted PEIR.

Stormwater

The project would construct the perimeter wall in areas outside of the main plant site. Construction activities could release water quality pollutants into Sunnyvale West Channel and Moffett Channel if not adequately managed. As the construction of the Master Plan improvements would be considered part of a common plan of development, all activities outside of the main plant regardless of size would be required to obtain coverage for construction stormwater discharges under the Construction General Permit and provide evidence of compliance to the City of Sunnyvale. Adherence to the Construction General Permit would require preparation of a SWPPP outlining construction BMPs related to housekeeping (storage of construction materials, waste management, vehicle storage and maintenance, pollutant control); non-stormwater management; erosion and sediment control; and run-on run-off control.

Implementation of the SWPPP as well as adherence to other permit conditions would ensure that sediment or other pollutant emissions from the perimeter wall area during construction would be reduced, to the extent required to protect beneficial use and adhere to basin plan requirements and would reduce the potential impact related to the discharge of potential water quality pollutants associated with construction activities to a less-than-significant level.

Once the wall is completed, all stormwater within the newly developed areas would be routed to the preliminary treatment facility, treated, and released in compliance with the WPCP's individual NPDES permit.

Groundwater

Shallower unconfined groundwater is present in the project vicinity, at depths of approximately 12 feet below ground surface at the project site (Geosyntec, 2018). An aquitard separates the shallow groundwater from the deeper aquifers of the Santa Clara Basin and prevents groundwater

impacted by landfill waste and leachate from moving downward (RWQCB, 2004).¹ As discussed in PEIR Impact HYD-4 (beginning on PEIR page 4.9-36), shallow groundwater beneath the landfill is influenced by surface water ponds, channels, ditches, storm drain pipelines, and sanitary sewers (RWQCB, 2004). Simulated estimates of shallow groundwater flow indicate the groundwater generally flows radially toward influent pipelines under Carl Road (City of Sunnyvale, 2018). Groundwater elevations increase during the rainy season due to rainfall recharge and decrease during the dry season due to groundwater discharge to sinks and evapotranspiration. Similar amounts of change between leachate and groundwater elevations indicate either a similar response to rainfall recharge and discharge or some degree of hydraulic communication between leachate and groundwater (Geosyntec, 2018). Annual monitoring of wells screened in the upper and lower shallow groundwater zone (shallow groundwater potentially affected by the closed landfill) at the WPCP indicate that the hydraulic gradient has varied between a few tenths of a foot upward and downward in the past years (Ulrick and Associates, 2017).

A Corrective Action Program is in place to monitor and control the flow of leachate and impacted groundwater from the landfill (Order No. R2-2004-0030). The Corrective Action Program is based on the hydraulic capture of groundwater by flow toward existing groundwater sinks (areas of relatively low groundwater pressure, toward which groundwater will preferentially flow), primarily stormwater and sanitary sewer pipelines along Borregas Avenue and Carl Road that discharge to the headworks of the main plant site. None of the Corrective Action Program groundwater quality monitoring wells are located at the project site. The Project would not require the relocation of components of the existing Corrective Action Program.

As discussed in Chapter 2, *Project Description*, excavation would extend to approximately 32 feet below ground surface. Procedures for containment, handling, and disposal of groundwater generated from construction dewatering, and the method used to analyze groundwater for hazardous materials likely to be encountered at specific locations and appropriate treatment and/or disposal methods, would be specified for the project as part of adopted **Mitigation Measure HAZ-2c, Soil and Groundwater Management Plan**. Extended groundwater dewatering may affect the groundwater flow and alter efficacy of the Corrective Action Program. The City is preparing a technical report describing components of construction activities affecting groundwater flow at the WPCP, including effects of the proposed project (City of Sunnyvale, 2018). The report also includes modeling conducted in efforts to predict potential changes to groundwater flow patterns and associated groundwater monitoring and control system changes deemed necessary to maintain the integrity of the landfill Corrective Action Program. The project report would be submitted to the RWQCB and project work could not proceed until the RWQCB concurs with the findings and the proposed methods to ensure efficacy of the Corrective Action Program. Compliance with these requirements would limit impacts related to changes in groundwater flow patterns and water quality to less-than-significant levels.

¹ As discussed in Chapter 2, *Project Description*, a portion of the project site (Recycle Yard) has recently been found to be part of the Sunnyvale Landfill. The vast majority of the Sunnyvale Landfill ceased operation in 1993 and was subsequently closed pursuant to state requirements. Investigations have found landfilled waste underlying the project site, which is outside the limits of the landfill characterized in the landfill's Postclosure Maintenance Plan.

Flooding

The ground elevation of the project site is currently approximately 6 feet NAVD88. As noted in the PEIR, the entire WPCP area, including most of the project site, is in the FEMA special flood hazard area, and the base flood elevation at the WPCP mapped by FEMA is 11 feet NAVD88. The City of Sunnyvale has established flood protection criteria, which require flood protection to at least as high as the depth number specified in feet on the Flood Insurance Rate Map or to a level two feet above the base flood elevation if no depth number is specified. Pursuant to the Sunnyvale Municipal Code, options to protect non-residential structures in the floodplain include elevating the lowest floor to at or above the flood protection level or floodproofing structural components below the flood protection level.

As discussed in PEIR Impact HYD-2, to address flooding at the WPCP, Master Plan improvements include establishment of a floodwall (the perimeter wall) around the main plant site to protect it from tidal flooding. Segments of the perimeter wall are being constructed in stages along with the individual Master Plan projects at the main plant site. As shown on Figure 6a, most of the perimeter wall surrounding the western half of the main plant would be constructed as part of the Project. The perimeter wall would extend vertically to an elevation of 14 feet (or approximately 8 feet above ground). A perimeter wall of this elevation would meet the protection criteria established by the City of Sunnyvale, and once connected with the other segments of the perimeter wall would maintain WPCP operations under the predicted 100-year tidal flood event with sea level rise up to 50 years into the future, which is predicted at 12.24 feet (Carollo/HDR, 2013). As discussed in PEIR Impact HYD-2, the perimeter wall would not impede or redirect flood flows such that substantial new flooding would result because tidal flooding is a function of wave run-up and topographic elevations over large expanses of the shoreline, and the volume of water displaced by the perimeter wall would not be large enough to affect surrounding water surface elevations during a tidal flood.

Conclusion

The project would comply with existing waste discharge requirements applicable to the WPCP and postclosure maintenance requirements applicable to the closed landfill, implement Mitigation Measure HAZ-2c during construction, and would not otherwise degrade water quality.

The project would construct the perimeter wall to protect the main plant facilities, which would not result in new or more significant impacts related to impedance or redirection of flood flows.

3.6 Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The environmental setting relevant to hazards and hazardous materials for the project has not changed relative to the setting in the PEIR.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to hazards and hazardous materials would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to hazards and hazardous materials impacts from this project.

Discussion

As discussed in Chapter 2, Project Description, the project would include ground disturbance in two areas outside of the Master Plan Area evaluated in the PEIR. These areas are the influent pipeline installation in Carl Road east of Borregas Avenue and the northwestern alignment of the perimeter wall, which has been shifted to the northwest. The project would not result in new or more severe significant adverse effects from routine use of hazardous materials, hazardous emissions or hazardous materials within one-quarter mile of an existing or proposed school, within two miles of a public airport, or through exposure of people or structures to significant risk of loss, injury, or death involving wildland fires. The following discussion evaluates whether project changes would result in any new or more severe significant environmental effects than identified in the PEIR.

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 or be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5

As described in the PEIR, the WPCP is not listed pursuant to Government Code Section 65962.5 (Cortese list). Two other hazardous materials sites listed pursuant to Government Code Section 65962.5 were identified in the Master Plan area: the Sunnyvale Landfill and the BOP/Recycling Center. The PEIR identified that construction activities could create a significant hazard to the public or the environment due to the presence of hazardous building materials and the potential exposure to contaminated soil and groundwater for any work conducted near the former landfill. Implementation of adopted **Mitigation Measures HAZ-2a, Hazardous Building Materials Abatement, HAZ-2b, Health and Safety Plan, and HAZ-2c, Soil and Groundwater Management Plan**, would ensure that any hazardous materials or wastes encountered are handled, transported and disposed of in a safe and lawful manner, and would reduce these potential impacts to a less-than-significant level.

Conclusion

With implementation of Mitigation Measures HAZ-2a, HAZ-2b and HAZ-2c, impacts associated with hazards and hazardous materials from Project construction would be the less than significant.

3.7 Cultural Resources

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The environmental setting relevant to cultural resources for the project has not changed relative to the setting in the PEIR.

Findings of Previously Adopted PEIR

The adopted PEIR determined that all project impacts related to cultural resources would be less than significant or less than significant with mitigation. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces adopted mitigation measures applicable to cultural resources impacts from this project.

Discussion

As discussed in Chapter 2, Project Description, the project would include ground disturbance in two areas outside of the Master Plan Area evaluated in the PEIR. These areas are the influent pipeline installation in Carl Road east of Borregas Avenue and the northwestern alignment of the perimeter wall, which has been shifted to the northwest. The following discussion evaluates whether project changes would result in any new or more severe significant environmental effects than identified in the PEIR.

Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5

As described in the PEIR, the Sunnyvale WPCP would not be considered an historical resource as it does not meet the criteria for eligibility for listing in the National Register of Historic Places or California Register of Historical Resources. As such, any alterations or expansions to these facilities contemplated under the project would have no impact on historical resources as defined by CEQA Section 15064.5.

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5

As described in the PEIR, no archaeological resources were identified in the Sunnyvale WPCP through background research or field survey. While not expected, the unanticipated discovery of archaeological resources or human remains cannot be entirely discounted. Impacts to archaeological resources would be potentially significant. Implementation of adopted **Mitigation Measure CUL-2, Unanticipated Discovery of Archaeological Resources**, would reduce impacts to a less-than-significant level by ensuring appropriate treatment of inadvertently discovered archaeological resources. With implementation of this mitigation measure, the project would not result in any new or more significant impacts to previously unknown archaeological resources than those identified in the certified PEIR.

Directly or indirectly destroy a unique paleontological resource or site

As described in the PEIR, while the paleontological sensitivity of the units underlying the site is low, there is a remote possibility that fossils may be discovered during excavations associated with components of the project. Because the significance of such fossils would be unknown until examined by a qualified paleontologist, such an event represents a potentially significant impact on paleontological resources. Implementation of adopted **Mitigation Measure CUL-3, Unanticipated Discovery of Paleontological Resources**, would reduce impacts to a less-than-significant level by ensuring appropriate treatment of accidentally discovered paleontological resources.

Disturb any human remains, including those interred outside of formal cemeteries

As described in the PEIR, no human remains, including those interred outside of formal cemeteries, are in the project site or vicinity. Although unlikely, the discovery of human remains during construction that involves ground disturbance cannot be entirely discounted. Disturbance of human remains would be a potentially significant impact. Implementation of adopted **Mitigation Measure CUL-4, Unanticipated Discovery of Human Remains**, would reduce impacts to a less-than-significant level by ensuring appropriate treatment of inadvertently discovered human remains. With implementation of this mitigation measure, the project would not result in any new or more significant impacts to previously unknown human remains than those identified in the certified PEIR.

Cumulative Cultural Resources Impacts

The geographic scope for cumulative effects on cultural resources includes the immediate vicinity of locations where the project could cause disturbance to historical resources, unique archaeological resources, and/or human remains. As the project would not have an impact on historical resources there would be no cumulative impact. Similar to the proposed project, cumulative projects in the project vicinity could have a significant impact on previously

undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. The potential impacts of the project when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on previously unknown archaeological resources or human remains. However, implementation of Mitigation Measures CUL-2 and CUL-4 would require that work halt in the vicinity of a find until it is evaluated by a Secretary of the Interior-qualified archaeologist, and in the case of human remains the County Coroner. In addition, cumulative projects undergoing CEQA review would have similar types of unanticipated discovery measures. Therefore, with implementation of Mitigation Measures CUL-2 and CUL-4, the proposed project's contribution to cumulative impacts would not be considerable.

Conclusion

Implementation of the adopted mitigation measures applicable to cultural resources would reduce possible impacts related to archaeological resources and human remains during construction of the project to a less than significant level, and the project would not result in any new or more significant impacts.

3.8 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>
Tribal Cultural Resources —				
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:				
a) 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"/>
b) 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

Since the adoption of the PEIR, Assembly Bill 52 (AB 52) was passed, which applies to projects for which a lead agency has issued a Notice of Preparation (NOP) of an environmental impact report or notice of intent to adopt a negative declaration on or after July 1, 2015. Tribal cultural resources were not analyzed in the PEIR.

Environmental Setting

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, or local register of historical resources, as defined in PRC Section 5020.1(k); or, 2) a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c).

As described in Section 3.7, Cultural Resources, background research and a survey effort did not identify cultural resources in the project area or in the vicinity. In addition, Native American outreach completed for the PEIR and consultation with the California State Historic Preservation Officer did not result in the identification of any tribal cultural resources in the project vicinity (ESA, 2016).

Regulatory Setting

State

In September 2014, the California Legislature passed AB 52, which added provisions to the PRC to evaluate under CEQA impacts to tribal cultural resources, as well as consultation requirements with California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3). Lead

agencies are required to analyze project impacts to tribal cultural resources separately from archaeological resources (PRC Section 21074; 21083.09). A tribal cultural resource is defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. 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.

Regarding impacts to tribal cultural resources, PRC Section 21084.3 states:

- a) Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.
- b) If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process provided in Section 21080.3.2, the following are examples of mitigation measures that, if feasible, may be considered to avoid or minimize the significant adverse impacts:
 - 1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - 2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - (A) Protecting the cultural character and integrity of the resource.
 - (B) Protecting the traditional use of the resource.
 - (C) Protecting the confidentiality of the resource.
 - 3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - 4) Protecting the resource.

Discussion

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)

No known tribal cultural resources listed or determined eligible for listing in the California Register, or included in a local register of historical resources as defined in PRC Section 5020.1(k), pursuant to PRC Section 21074(a)(1), would be impacted by the project.

However, while unlikely, if any previously unrecorded archaeological resource were identified during ground-disturbing construction activities and were found to qualify as a tribal cultural resource pursuant to PRC Section 21074(a)(1) (determined to be eligible for listing in the California Register or in a local register of historical resources), any impacts to the resource resulting from the project could be potentially significant. Any such potential significant impacts would be reduced to a less than significant level by implementing adopted **Mitigation Measure CUL-2, Unanticipated Discovery of Archaeological Resources** and **Mitigation Measure CUL-4, Unanticipated Discovery of Human Remains** (refer to Section 3.7).

With implementation of these mitigation measures, the project would not result in any new impacts to tribal cultural resources.

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.

The City did not determine any resource that could potentially be affected by the project to be a tribal cultural resource significant pursuant to criteria set forth in PRC Section 5024.1(c). Therefore, the Project is not anticipated to impact any such resources.

However, while unlikely, 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) (determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1[c]), any impacts to the resource resulting from the project could be potentially significant. Any such potential significant impacts would be reduced to a less than significant level by implementing adopted **Mitigation Measure CUL-2, Unanticipated Discovery of Archaeological Resources**, and **Mitigation Measure CUL-4, Unanticipated Discovery of Human Remains** (refer to Section 3.7).

With implementation of these mitigation measures, the project would not result in any new impacts to tribal cultural resources.

Conclusion

Implementation of the adopted mitigation measures applicable to cultural resources would reduce possible impacts related to tribal cultural resources during construction of the project to a less than significant level, and the project would not result in any new significant impacts.

3.9 Aesthetics

<i>Issues (and Supporting Information Sources):</i>	<i>Potentially Significant Effects Not Identified in Prior EIR</i>	<i>Potentially Substantial Increase in Severity of Significant Impact Identified in Prior EIR</i>	<i>Sponsor Declines to Adopt Feasible Mitigation Measures or Alternatives</i>	<i>No New or More Severe Significant Effects</i>
AESTHETICS — 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The environmental setting relevant to Aesthetics for the Project site has not changed since adoption of the PEIR. Setting discussions from the adopted PEIR for scenic vistas, scenic resources, existing visual character or quality, and light and glare are applicable to the Project.

Findings of Previously Adopted PEIR

The adopted PEIR found that Master Plan components outside the main Plant site (in Ponds 1 and 2) would alter the visual quality of Moffett Channel and Cargill Channel, a significant impact that could be reduced with mitigation.

The adopted PEIR determined that landscaping planted along the fenceline would partially screen views of new structures from Borregas Avenue and Carl Road. In addition, the PEIR found that these new facilities would be consistent with the existing industrial nature of the main plant site and these facilities would not be visible to motorists on nearby Caribbean Drive due to the intervening landfill topography.

The adopted PEIR found that given (a) the limited publicly accessible viewpoints of the main plant, (b) the existing visual character of the site (see PEIR Figure 4.15-7, Photo 12), and (c) the anticipated future appearance of proposed facilities, implementation of the Master Plan would not substantially degrade the visual character of the main plant.

Discussion

As discussed in Chapter 2, Project Description, the perimeter wall location along the northwest has shifted closer to Moffett Channel. The following discussion evaluates whether project changes would result in any new or more severe significant environmental effects than identified in the PEIR.

Scenic Vistas, Resources, and Highways

There are no state- or locally-designated scenic vistas in the vicinity of the WPCP, nor is the project site visible from a state scenic highway (Caltrans, 2020; City of Sunnyvale, 2011). Given the absence of designated scenic vistas in the area, construction and operation of the Project with modifications would not result in a substantial adverse effect on a scenic vista, highway, or other scenic resource, and no mitigation is required.

Visual Character

Rehabilitation activities outside the main Plant would include relining the primary effluent pipeline and replacing equipment at and near the pond circulation pump station and pond effluent pump station. The Project would not construct new facilities north or east of the main Plant site, and would not affect the high quality views near Ponds 1 and 2 identified in the PEIR.

The WPCP has an industrial character, and is in an urbanized area zoned as “Public Facilities” (City of Sunnyvale, 2020b). Temporary facilities ranging from 13 to 26 feet tall would be installed on top of the demolished sedimentation tanks as part of the Site Preparation activities. The temporary facilities would not exceed the height of the tallest structure at the WPCP main plant (approximately 31 feet tall, excluding appurtenant features), and would be removed once new facilities are constructed under other Master Plan projects. The temporary facilities, along with other project facilities, would be consistent with the existing industrial character of the main plant site and would not be visible to motorists on nearby Caribbean Drive due to the intervening landfill topography. Intervening landfill topography would also limit the visibility of the temporary facilities from nearby trails.

Portions of the perimeter wall would be constructed during both Site Preparation and Rehabilitation activities (refer to Figures 4 and 6a) and would range from four to eight feet above current ground surface. As part of the Master Plan, Carl Road west of Borregas Avenue would be closed to the public. Consequently, views of the perimeter wall from public roadways would be limited to westbound Carl Road and the Bay Trail to the west of the WPCP. While vegetation that currently provides screening would be removed in several areas within the main Plant site (refer to Figure 7), the new perimeter wall would screen views of the WPCP, and would be consistent with the existing industrial character of the main Plant site. The temporary facilities, perimeter wall, and other Project facilities would thus not substantially degrade the existing visual character of the site and surroundings, and the impact would not be more significant than that identified in the previously approved PEIR.

Light and Glare

The Project would not include installation of permanent lighting for 24 hour surveillance, as described in the PEIR, but would include temporary, manual lighting in locations where night construction work is performed; thus, the impact would be the same as that identified in the previously approved PEIR.

Conclusion

No new or more significant impacts related to a scenic vista, highway, or other scenic resource would result from the Project compared to the impacts identified in the previously adopted PEIR.

The Project would not result in new or more significant impacts related to the visual character of the Project site and its surroundings than those identified in the previously adopted PEIR.

The project would not result in new or more significant impacts related to the effects of light and glare on daytime or nighttime views than those identified in the previously adopted PEIR.

3.10 References

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CHAPTER 4

Conclusion

The Site Preparation and Existing Plant Rehabilitation project would not result in new or more severe significant impacts than those attributable to the project described in the Sunnyvale Water Pollution Control Plant (WPCP) Master Plan Program Environmental Impact Report (PEIR).

The analyses and discussion in Chapter 3 do not reflect involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There have been no changes in circumstances under which the project is undertaken that would result in new significant environmental impacts or substantially more severe impacts, and no new information has become available that would indicate the potential for new significant impacts or substantially more severe impacts than were discussed in the PEIR. Therefore, no further evaluation is required, and no Subsequent EIR is needed pursuant to CEQA Guidelines Section 15162.

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CHAPTER 5

Mitigation Monitoring and Reporting Program – Site Preparation and Existing Plant Rehabilitation

Table 7 presents mitigation measures and City actions to implement, monitor and report on these measures that apply to the Site Preparation and Existing Plant Rehabilitation project. These measures were adopted by the City Council on August 23, 2016. **Table 8** presents other mitigation measures contained within the Sunnyvale Water Pollution Control Plant Master Plan Mitigation Monitoring and Reporting Program that do not apply to the project, and the reasons that they do not apply.

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TABLE 7
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Transportation					
<p>Mitigation Measure TR-1a: Truck Route Plan.</p> <p>As part of pre-construction submittals, the contractor(s) shall submit a truck route plan to the City of Sunnyvale Public Works Department for review and approval to help minimize impacts to adjacent roadways.</p>	Contractor(s) shall obtain approval of truck route plan and implement plan during construction	City of Sunnyvale Public Works Department	Verify, review and approve truck route plan.	Prior to construction	<i>Verified by:</i> <i>Date:</i>
<p>Mitigation Measure TR-1b: Implement a Temporary Traffic Control Plan.</p> <p>The City contractor(s) shall prepare and implement a traffic control plan using the City's Temporary Traffic Control guidelines to reduce traffic impacts on the roadways at and near the work site, as well as to reduce potential traffic safety hazards and ensure adequate access for emergency responders. The City shall coordinate development and implementation of this plan with City departments (e.g., Emergency Services, Fire, Police, Transportation), as appropriate. To the extent applicable, the traffic control plan shall conform to the Caltrans' <i>California Manual on Uniform Traffic Control Devices</i>, Part 6 (Temporary Traffic Control; Caltrans, 2014). The traffic control plan shall include, but not be limited to, the following elements:</p> <ul style="list-style-type: none">• Circulation and detour plans to minimize impacts on local road circulation during road and lane closures. Flaggers and/or signage shall be used to guide vehicles through and/or around the construction zone.• Controlling and monitoring construction vehicle movement through the enforcement of standard construction specifications by onsite inspectors.• Sufficient staging areas for trucks accessing construction zones to minimize disruption of access to adjacent public rights-of-way.• Scheduling truck trips outside the peak morning and evening commute hours to the extent possible.• Maintaining pedestrian and bicycle access and circulation during project construction where safe to do so. If construction activities encroach on bicycle routes or multi-use paths, advance warning signs (e.g., "Bicyclists Allowed Use of Full Lane" and/or "Share the Road") shall be posted that indicate the presence of such users.• Identifying detours for bicycles and pedestrians, where applicable, in all areas affected by project construction.• Implementing roadside safety protocols. Advance "Road Work Ahead" warning and speed control signs (including those informing drivers of State legislated double fines for speed infractions in a construction zone) shall be posted to reduce speeds and provide safe traffic flow through the work zone.• Coordinating construction with administrators of police and fire stations (including all fire protection agencies), and recreational facility managers. Operators shall be notified in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures, where applicable.• Storing all equipment and materials in designated contractor staging areas on or adjacent to the worksite, such that traffic obstruction is minimized.	Contractor(s) shall prepare plan that adheres to all measures listed Contractor(s) shall implement plan	City of Sunnyvale Public Works Department	Verify inclusion of plan in contract specifications	Prior to construction	<i>Verified by:</i> <i>Date:</i>
<p>Mitigation Measure C-TR-1: Implement Coordinated Transportation Management Plan.</p> <p>Prior to construction, the City's respective contractor(s) shall develop a Coordinated Transportation Management Plan, and the City and its contractor(s) shall work with other projects' contractors and appropriate County and/or City departments (e.g., Emergency Services, Fire, Police, Transportation) as needed to prepare and implement a transportation management plan for roadways adjacent to and directly affected by the Master Plan improvements or the WPF, and to address the transportation impact of the overlapping construction projects within the vicinity of the Master Plan or the WPF in the region. The transportation management plan shall include, but not be limited to, the following requirements:</p> <ul style="list-style-type: none">• Coordination of individual traffic control plans for the Master Plan or WPF with nearby projects.• Coordination between the contractor and other project contractors in developing circulation and detour plans that include safety features (e.g., signage and flaggers). The circulation and detour plans shall address:<ul style="list-style-type: none">– Full and partial roadways closures– Circulation and detour plans to include the use of signage and flagging to guide vehicles through and/or around the construction zone, as well as any temporary traffic control devices– Bicycle/Pedestrian detour plans, where applicable– Parking along public roadways– Haul routes for construction trucks and staging areas for instances when multiple trucks arrive at the work sites– Protocols for updating the transportation management plan to account for delays or changes in the schedules of individual projects.	City's contractor(s) shall develop a plan that adheres to all measures listed. The City and its contractor(s) shall work with other project contractors, if necessary, and appropriate County and/or City departments for preparation and implementation of this plan.	City of Sunnyvale Public Works Department	Verify inclusion of this plan in the contract specifications.	Prior to construction	<i>Verified by:</i> <i>Date:</i>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Air Quality					
<p>Mitigation Measure AQ-2a: Implement BAAQMD Basic Construction Mitigation Measures.</p> <p>The City shall implement the following applicable BAAQMD Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust:</p> <ul style="list-style-type: none">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 visible emissions evaluator.Post a publicly visible sign with the telephone number and person to contact at the City or City’s contractor regarding dust complaints. This person shall respond and the contractor shall take corrective action within 48 hours.	City or its contractor(s) implement BAAQMD Basic Construction Measures	City of Sunnyvale Public Works Department	<p>Verify inclusion of measures in contract specifications and construction plans.</p> <p>Inspect construction site to confirm compliance by the contractor, report non-compliance and ensure corrective action.</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
Biological Resources					
<p>Mitigation Measure BIO-1a: Reduce Impacts on Congdon’s Tarplant.</p> <ul style="list-style-type: none">Within 2 years prior to initial ground disturbance for activities outside the main plant fenceline, the City will retain a qualified biologist, or require the contractor to retain a qualified biologist, to conduct protocol-level surveys for Congdon’s tarplant in suitable habitat in, and within 50 feet of, the proposed construction footprint. These surveys will be conducted in accordance with the protocols established by the CDFW and CNPS, and shall coincide with the bloom period for the species (May through November).If Congdon’s tarplant is present in the survey area, the City contractor will avoid impacts on individuals of this species to the extent feasible during implementation of the Master Plan.If Congdon’s tarplant is present near the limits of disturbance, the City contractor will maintain a buffer free from construction-related activities around the tarplant occurrence; this buffer will be at least 50 feet if feasible, but large enough to avoid indirect impacts such as dust mobilization and alteration of hydrology. The City contractor shall demarcate the buffer in the field with orange fencing. No equipment or vehicles shall be permitted within the buffer area during construction.If 15 percent or more of the known population of Congdon’s tarplant within five miles of the Master Plan area at the time of impact would be affected by the Master Plan, the City will provide compensatory mitigation. To compensate for loss of individual Congdon’s tarplants, offsite habitat either occupied by the species or suitable for restoration to support the species and revegetated with this species (such as Sunnyvale Baylands Park) shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected). Seeds from the affected population shall be collected and used to seed the mitigation area.	<p>Contractor(s) shall prepare construction plans that incorporate protocol-level pre-construction surveys for Congdon’s tarplant.</p> <p>The Contractor shall identify a qualified biologist.</p> <p>Qualified biologist will conduct pre-construction surveys.</p> <p>Qualified biologist to inspect construction site to confirm implementation of measures.</p> <p>Locate compensatory mitigation site, as needed, and select qualified biologist to collect and disseminate seeds from affected population during appropriate season (generally September/October)</p> <p>Qualified biologist shall collect and disseminate seeds from affected population during appropriate season</p>	City of Sunnyvale Public Works Department	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Inspect and confirm implementation of construction buffer zone(s) based on pre-construction survey results.</p> <p>Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation.</p> <p>Secure record of planting from qualified biologist</p>	<p>Prior to commencement of construction.</p> <p>After completion of pre-construction survey report.</p> <p>One inspection shall occur during each phase of construction.</p> <p>After completion of pre-construction survey report.</p> <p>After completion of planting.</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure BIO-2a: Worker Environmental Awareness Training.</p> <p>The City will retain, or require the contractor to retain, a qualified biologist to conduct mandatory contractor/worker environmental awareness training for all construction personnel working on project activities outside of the main plant, including but not limited to Ponds 1 and 2, the diurnal equalization and emergency storage basins, channel levees, and the Bay Trail parking relocation area. The awareness training will be provided to all construction personnel to brief them on the potential for special-status species to occur on the site, the need to avoid effects to special-status species and their habitats, and all project mitigation measures pertaining to biological resources and water quality. If new construction personnel are added, the contractor will ensure that the personnel receive the mandatory training before starting work. A representative will be appointed during the employee education program to be the contact for any employee or contractor who might inadvertently kill or injure a special-status species or who finds a dead, injured, or entrapped individual. The representative’s name and telephone number will be provided to the City prior to the initiation of construction activities outside of the main plant.</p>	<p>City or contractor(s) to retain a qualified biologist to conduct environmental awareness training for construction personnel.</p> <p>Qualified biologist to conduct training(s)</p>	City of Sunnyvale Public Works Department	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan in contract specifications.</p> <p>Record name of appointed representative to contact</p> <p>Record date(s) of training</p>	<p>Prior to construction outside of the main plant</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
<p>Mitigation Measure BIO-2b: Minimization of Impacts on Water Quality.</p> <p>The following measures will be incorporated into the construction stormwater pollution prevention plan and implemented during construction of Master Plan improvements to avoid or minimize impacts on water quality:</p> <ul style="list-style-type: none">Earth-moving in areas draining directly to wetlands and aquatic habitats will not occur during days when rain is occurring or predicted to occur (i.e., greater than 40 percent chance) during the work period. This measure applies to all Project areas with potential to drain directly to wetlands or aquatic habitats, particularly in or adjacent to the the Southeast Channel, the Sunnyvale West Channel, the Cargill Channel, the Moffett Channel, Ponds 1 and 2, and SCVWD Pond A4.All permit conditions, legal requirements, and appropriate dredging and engineering practices shall be followed to avoid and minimize water quality impacts associated with Master Plan activities. Suitable erosion control, sediment control, source control, treatment control, material management, and stormwater management BMPs will be implemented consistent with the latest edition of the California Stormwater Quality Association “Stormwater Best Management Practices Handbook,” available at www.capmhandbooks.com <u>www.casqa.org</u>.Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations). Feasible measures shall be implemented to ensure that hazardous materials are properly handled and the quality of aquatic resources is protected by all reasonable means when removing vegetation and sediments from the channels.No fueling shall be done in areas immediately adjacent to (i.e., within 50 feet of) channels, ponds, or wetlands. For stationary equipment that must be fueled on site, containment shall be provided in such a manner that any accidental spill of fuel shall not be able to enter the water or contaminate sediments that may come in contact with water. Any equipment that is readily moved out of the channels, ponds, or wetlands shall not be fueled in these sensitive habitat areas or the immediate floodplains surrounding them.A hazardous materials management/fuel spill containment plan will be developed and implemented by the construction contractor and given to all contractors and biological monitors working on the Master Plan, with at least one copy of the plan located onsite at all times. The purpose of the plan is to provide onsite construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of Master Plan elements. The primary objective of the plan is to prevent a spill of hazardous materials. Elements of the plan will include, but are not limited to the following:<ul style="list-style-type: none">A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage area, access and egress routes, waterways, emergency assembly areas, and temporary hazardous waste storage areas;Materials Safety Data Sheets for all chemicals used and stored on site;An inventory list of emergency equipment;Spill control and countermeasures including employee spill prevention/response training;Notification and documentation procedures; andA monthly reporting plan.Vehicles will be checked daily for oil or fuel leaks and will be washed only at an approved area (<u>existing construction yards or legally operating car washes</u>)as described above for Mitigation Measure BIO-1b. No washing of vehicles will occur in Master Plan areas located outside of the main plant fenceline.The work site, areas adjacent to the site, and access areas will be maintained in an orderly condition, free and clear from debris and discarded materials. This measure includes all Master Plan areas located outside of the main plant fenceline. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust onto adjacent areas or waterways. Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work<u>Master Plan</u> areas located outside of the main plant fenceline.Stockpiled materials outside of the main plant fenceline will be covered by plastic sheeting, tarps, or similar material that can be secured during wind and rain. A sediment fence or berm will be installed around stockpiled dredged material to prevent runoff from transporting sediment into sensitive habitats (such as the channels, ponds, and wetlands). Heavy equipment will not be operated in the active channels or within wetland habitats, but instead from existing hardscape, access roads, and levees.Water conservation methods will ensure that water used in the work <u>Master Plan</u> area does not create surface flows capable of carrying pollutants to the nearby creek channel. All personnel, including sub-contractors will be instructed on the practical methods of preventing leaks or over-use of watering, and will be required to adhere to the practices in the detail sheets provided. Woody debris from tree trimming and other activities will not be left in the active channels or in wetland habitats.In channel vegetation removal may result in increased local erosion in the channels due to increased flow velocity. To minimize such erosion, the toe of the bank will be protected by leaving vegetation within the channel to the maximum extent practicable.Cofferdams or silt fencing will be used to the extent feasible during construction and maintenance activities that could potentially result in substantial siltation of open water. For any work within aquatic or wetland habitats, such as Ponds 1 and 2 or the Cargill Channel, silt curtains will be installed to prevent suspended sediments from migrating out of the immediate work area, and dredging will be conducted on incoming tides to the extent feasible to further reduce the potential for sediment mobilization outside the Master Plan area. Dredging within aquatic or wetland habitats will be conducted with a closed clamshell style dredge to reduce the amount of suspended sediment produced. Dredge volumes will be documented to ensure compliance with and adequate performance of these measures.	<p>City or contractor(s) to retain a qualified water quality specialist to prepare a stormwater pollution prevention plan that adheres to all measures</p> <p>Contractor(s) to include plan in construction plans</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of plan in contract specifications</p> <p>Review monthly hazardous materials management/fuel spill containment plan reports for compliance with measure</p> <p>Document dredging volumes in compliance with measure</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
<p>Mitigation Measure BIO-2e: Burrowing Owl Measures.</p> <p>The following measures will be implemented to avoid and minimize impacts on burrowing owls in the Master Plan work area, particularly on the closed landfill and along the Sunnyvale West Channel but also including areas within the main plant fenceline that may support ground squirrel burrows:</p> <ul style="list-style-type: none">• Preconstruction surveys for burrowing owls will be conducted by a qualified biologist prior to all construction activities that occur within 250 feet of potential burrowing owl habitat on the closed landfill or along the Sunnyvale West Channel, in conformance with CDFW protocols. This measure applies to construction activities inside of the main plant fenceline only where ground squirrel burrows are present or for those activities located within 250 feet of suitable burrowing owl habitat on the closed landfill or Sunnyvale West Channel. The final survey will occur no more than 2 days prior to the start of any ground-disturbing activity such as clearing and grubbing, excavation, or grading, or any similar activity within 250 feet of suitable habitat that could disturb nesting owls. If no burrowing owls are located during these surveys, no additional action would be warranted. However, if burrowing owls are located on or immediately adjacent to impact areas, the following measures would be implemented.• If burrowing owls are present during the nonbreeding season (generally 1 September to 31 January), the City/contractor would maintain a 150-foot buffer zone, within which no new Master Plan-related activity would occur, around the occupied burrow(s) if feasible. However, this buffer distance would not apply to existing operations and maintenance activities in the main plant. A reduced buffer distance is acceptable during the nonbreeding season as long as construction avoids direct impacts on the burrow(s) used by the owls. During the breeding season (generally 1 February to 31 August), a 250-foot buffer, within which no new Master Plan-related activity would be permissible, would be maintained between Master Plan activities and occupied burrows. Owls present at burrows on the site after 1 February would be assumed to be nesting on or adjacent to the site unless evidence indicates otherwise. This protected area would remain in effect until 31 August, or based upon monitoring evidence, until young owls are foraging independently or until the nest is no longer active.• In the unlikely event that an occupied burrowing owl burrow is within the construction footprint (e.g., on the bank of a levee), and the burrow cannot be avoided, the owl will be evicted from the burrow by a qualified biologist using one-way doors. The biologist will leave the one-way doors in place for at least 48 hours, checking them daily to ensure that they are functioning properly. If the biologist cannot be certain that the owl is outside the burrow (e.g., if the one-way doors were installed when the owl was inside the burrow and the owl cannot be detected outside later), then the burrow will be excavated by hand prior to being filled to ensure that no owl is trapped inside. Otherwise, the burrow will be backfilled after the owl has been evicted. No burrowing owls will be evicted from burrows during the nesting season unless evidence indicates that nesting is not actively occurring (e.g., because the owls have not yet begun nesting early in the season, or because young have already fledged late in the season).	<p>Contractor to prepare plans that incorporate preconstruction surveys, buffer zones, and relocation plan</p> <p>Contractor to identify qualified biologist to conduct preconstruction surveys</p> <p>Qualified biologist to establish buffer zones or conduct owl relocation, as needed</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of these measures in contract specifications and construction plans</p> <p>Review survey report</p> <p>If burrowing owls present, inspect construction site to confirm buffer zones</p>	<p>Prior to construction</p> <p>During construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure BIO-2f: California Ridgway's Rail and California Black Rail Measures.</p> <p>The following measures will be implemented for activities outside of the main plant fenceline to avoid and minimize impacts on California Ridgway's rails and California black rails, particularly in tidal marsh habitats associated with the Moffett Channel:</p> <ul style="list-style-type: none">• Impacts on tidal wetland habitat of these species will be avoided <u>minimized to the extent feasible</u>. Tidal wetland habitat for these species occurs in the northern portions of the <u>work</u> Master Plan area, in association with the Moffett Channel. Suitable tidal wetland habitat for these species is not present within the main plant fenceline.• To avoid causing the abandonment of an active nest, construction activities within 700 feet of vegetated tidal marsh providing suitable breeding habitat for Ridgway's rails or black rails (i.e., the area along Moffett Channel where the marsh begins to widens <u>near the pond circulation pump station just upstream from its confluence with Guadalupe Slough, or the large marsh area along Guadalupe Slough north of Pond 4</u>) will be avoided during the breeding season from February 1 through August 31 unless protocol-level surveys are conducted to determine rail locations and territories the same year in which those construction activities occur. If breeding Ridgway's rails or black rails are determined to be present, activities will not occur within 700 feet of areas in which Ridgway's rails or black rails were heard calling during protocol-level surveys. If the intervening distance across a major slough channel (e.g., Moffett Channel or Guadalupe Slough) or across a substantial barrier between the locations of rail detections and any construction activity area is greater than 200 feet, then it may proceed at that location within the breeding season.• Aside from continued use of recreational trails established prior to the start of the breeding season (which may continue), only routine inspection, maintenance, or monitoring activities that have little potential for effects on rails due to their short durations, distance from rail habitat, or low-magnitude effects may be performed during the breeding season in areas within or adjacent to rail breeding habitat. Otherwise, with USFWS and CDFW approval on a case-by-case basis, construction activities may take place after July 15 in a given area if the activity is thought to be minimally disturbing to breeding rails.• The extent of impacts <u>near</u> on tidal marsh will be clearly demarcated in the field, and no impacts (including construction access) will occur outside those limits.• Silt fencing or similar material will be installed <u>at the perimeter of work areas</u>, between all areas of earth-moving and marsh outside the impact area to prevent dirt and other materials from entering marsh areas that are not intended to be affected.• No animals can be brought to the project site to avoid harassing, killing, or injuring wildlife.• The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction and dredging.• Nighttime work near tidal marsh habitat will be avoided to the extent feasible. If nighttime work cannot be avoided, lighting will be directed to the work area and away from tidal marsh habitat.	<p>Contractor to prepare construction plans incorporating requirements of the measure</p> <p>Prior to February 1 of the years during which activities would occur within 700 feet of suitable breeding habitat, qualified biologist to conduct protocol-level surveys</p>	<p>City of Sunnyvale Public Works Department</p>	<p>Verify inclusion of these measures in contract specifications and construction plans</p>	<p>Protocol-level survey begins mid-January prior to construction</p>	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
<p>Mitigation Measure BIO-2g: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Measures</p> <p>The following measures will be implemented for activities outside of the main plant fence line to avoid and minimize impacts on the salt marsh harvest mouse and salt marsh wandering shrew, particularly in <u>by</u> marsh habitat associated with the <u>the</u> Moffett Channel, <u>Cargill Channel, and the MCC northwest of the pond circulation pump station:</u></p> <ul style="list-style-type: none">Impacts on pickleweed and wetland habitat that may support <u>this these</u> species will be <u>avoided minimized to the extent feasible</u>. Wetland habitat that may support these species occurs in the northern portion of the <u>Master Plan work</u> area, in association with the <u>the</u> Moffett Channel and the <u>the</u> Cargill Channel. No suitable habitat for these species occurs within the main plant fence line.<u>To avoid the loss of individual harvest mice or wandering shrews from any, no</u> excavation, fill, or construction activities in suitable habitat, vegetation removal and fill in marsh habitats, including the Moffett Channel and the Cargill Channel, <u>will occur be limited to the minimum amount necessary to implement the Master Plan improvements. Wherever feasible, sufficient pickleweed habitat will remain adjacent to the activity area to provide refugia for displaced individuals.</u>In areas where salt marsh harvest mice or wandering shrew habitat will be affected, vegetation and debris that could provide cover for mice will be removed using only hand tools at least three weeks prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. The vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. In some cases, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or wandering shrews present are able to escape to cover that will not be affected), whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area, and whether any berms are necessary to allow mice or shrews to disperse across wetted channels.Following the hand removal of vegetation in areas where these species may be affected, <u>Exclusion</u> fencing will be erected as needed between construction areas and harvest mouse/wandering shrew <u>wandering shrew</u> habitat that is to remain unaffected to define and isolate protected habitat for <u>this these</u> species. This fencing will consist of heavy plastic sheeting or metal material that cannot be climbed by harvest mice or wandering shrews, or similar <u>Resource Agency Service</u>-approved exclusion materials, buried at least 4 inches below the ground's surface and with at least 1 foot (but no more than 4 feet) above the ground. All supports for the fencing will be placed on the inside of the work area. A 4-foot buffer will be maintained free of vegetation around the outside of the exclusion fencing. The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when they are <u>damage is</u> found. If any breaks in the fencing are found, a qualified biologist will inspect the work area for salt marsh harvest mice or wandering shrews. If any individual harvest mice are found within the impact footprint, they will be allowed to move on their own (although shrews may be relocated by a qualified biologist) to vegetated areas outside the impact footprint.During construction in areas where salt marsh harvest mice and wandering shrews may be affected, a qualified biologist will check underneath vehicles and equipment for <u>this these</u> species before such equipment is moved during each day of construction, unless the equipment is surrounded by exclusion fencing. Based on current design concepts, the Master Plan is expected to affect approximately 1.5 acres of tidal coastal brackish marsh (in the Moffett Channel) and another 0.5 acre of non-tidal salt marsh (in the Cargill Channel) that could potentially support these species through raising (and as a result widening) an access road and construction of a new pipeline segment to the diurnal equalization basins. To compensate for these habitat impacts, the City will provide mitigation through a combination of (a) the purchase of credits in an approved conservation bank that provides habitat suitable for use by these species and/or (b) tidal marsh habitat restoration onsite or offsite. Owing to the relatively low quality of habitat provided by the wetlands to be affected by Master Plan activities, this mitigation will be provided at a minimum ratio of 1:1 (mitigation:impact) on an acreage basis. This mitigation can be provided using the same mitigation area as described in Mitigation Measure BIO-3b for wetlands as long as the habitat is suitable for the salt marsh harvest mouse and salt marsh wandering shrew and provides vegetated wetlands adequate to compensate for impacts on these species' habitats at a 1:1 ratio.Prior to construction, the City will purchase credits from an approved conservation bank and/or prepare a Habitat Mitigation and Monitoring Plan (HMMP) describing the proposed creation of mitigation habitats that will satisfy the mitigation requirements. Impacts on habitat of the salt marsh harvest mouse and salt marsh wandering shrew may not commence until the adequate credits in a conservation bank have been purchased and/or the City prepares the HMMP. The HMMP will be prepared by a qualified restoration ecologist and will include the following:<ul style="list-style-type: none">A summary of impacts on these species' habitats and the proposed mitigation acreageGoals of the restoration to achieve no net loss of habitat functions and values for these speciesThe location of the mitigation site and description of existing site conditionsMitigation design:<ul style="list-style-type: none">Existing and proposed site hydrology, geomorphology, and geotechnical stability, if applicableGrading plan if appropriate, including bank stabilization or other site stabilization featuresSoil amendments and other site preparation elements as appropriatePlanting planIrrigation and maintenance planConstruction schedule	<p>Contractor to prepare construction plans incorporating requirements of the measure</p> <p>Contractor to inspect fencing daily during construction</p> <p>Contractor to identify qualified biologist to check underneath vehicles and equipment for species before equipment is moved each day.</p>	City of Sunnyvale Public Works Department	Verify inclusion of these measures in contract specifications and construction plans	Prior to and during construction	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 7 (CONTINUED)

MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
<p>Monitoring plan (including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). Performance criteria will include demonstration of the presence of appropriate vegetation for these species within 10 years of mitigation implementation and presence of at least one of these two small mammal species within 10 years of the establishment of appropriate vegetated habitat.</p> <p>A contingency plan for mitigation elements that do not meet performance or final success criteria; this plan will include specific triggers for remediation if performance criteria are not being met.</p>					
<p>Mitigation Measure BIO-2h: Nesting Bird Measures.</p> <p>The following measures will be implemented throughout the Master Plan area to minimize impacts on nesting San Francisco common yellowthroat, Alameda song sparrow, and other native bird species:</p> <ul style="list-style-type: none"> Nesting deterrence can be implemented to minimize the potential for nesting birds to constrain project activities or to be adversely affected by those activities. The most effective nesting deterrence in non-developed portions of the main plant is vegetation removal to remove nesting substrate. Vegetation that is to be affected by the project should be removed during the nonbreeding season (i.e., September 1 through January 31) if feasible. If necessary, removal of nest-starts (incomplete nests that do not yet contain eggs or young) by qualified biologists may occur during the breeding season. Such nest-start removal may begin early in the breeding season (e.g., February) and continue regularly until vegetation can be removed and construction commences. Some species, such as barn swallows or black phoebes, may establish nests on buildings or other structures. To deter birds from nesting on structures, netting or other deterrence devices may be installed to preclude birds from constructing nests. Such nesting deterrence should be implemented under the supervision of qualified biologists in order to prevent death or injury of birds as a result of improperly installed deterrence devices, and such devices will require regular maintenance to ensure that they are functioning properly. Prior to commencement of new activities (i.e., activities that are not currently ongoing in any given area) during the breeding season (February 1 through August 31), preconstruction surveys will be conducted by a qualified biologist no more than 7 days prior to the initiation of new disturbance in any given area to ensure that no active nests of species protected by the Migratory Bird Treaty Act or California Fish and Game Code will be disturbed during Master Plan implementation. During this survey, the biologist will inspect all potential nesting habitats (e.g., trees, shrubs, buildings, and various substrates on the ground) in the project area for nests. This survey will include suitable nesting substrates both within and outside the main plant fenceline. Surveys will be conducted within search radii corresponding to disturbance-free buffer zones described below for raptors (300 feet) and non-raptors (100 feet), including offsite areas adjacent to the Master Plan area (where such areas are accessible and are contained in the buffer zones). If an active nest is found, a qualified biologist will determine the extent of a disturbance-free buffer zone to be established around the nest until nesting has been completed. Disturbance-free buffer zones are typically 300 feet for raptors and 100 feet for non-raptors, although factors such as existing disturbance and vegetation or structures that screen construction activities from a nest will be considered in determining the appropriate buffer. Nests will be considered active until surveys conducted by a qualified ornithologist confirm nesting is complete. However, construction within these radii may proceed if, based on monitoring of the birds behavior, a qualified biologist determines that such activities are not likely to result in the abandonment of the nest. Per CDFW recommendations, monitoring will be conducted as follows: <ul style="list-style-type: none"> A qualified biologist will monitor activity at each nest for three days prior to the onset of construction activities to develop a baseline of the normal behavior of the birds attending the nest. If the behavior observed at the nest is consistent on Days 1 and 2 of monitoring, Day 3 of monitoring may be skipped. A qualified biologist will monitor activity at each nest for 8 hours on the first day that construction occurs within the standard buffer (e.g., within 100 feet of a non-raptor nest). If the biologist determines that the birds' behavior is not adversely affected, Master Plan activities may continue. The biologist should continue to monitor the nests for 1 hour/day on any day when construction activities occur within the standard buffer around an active nest. If at any time the biologist determines that Master Plan activities within the standard buffer is adversely affecting the behavior of the birds such that the nest is in jeopardy of failing, construction activities should retreat to honor the standard buffer until the nest is no longer active (i.e., the young have fledged) 	<p>Contractor(s) to prepare construction plans that include schedule of vegetation removal, nest deterrence, preconstruction surveys, and buffer zones</p> <p>Contractor to identify qualified biologist to conduct nesting deterrence measures</p> <p>Contractor to remove vegetation within non-breeding season</p> <p>Biologist to implement nesting deterrence measures</p>	City of Sunnyvale Public Works Department	<p>Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of measures in contract specifications and construction plans</p>	Prior to construction	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure BIO-4a: Avoidance and Preservation of Trees.</p> <p>During detailed design of Master Plan activities, either within or outside the main plant fenceline, ordinance-sized trees will be avoided to the extent feasible. If it is determined during detailed design that impacts on some trees can be avoided, a construction-phase Tree Preservation Plan shall be prepared by a certified arborist prior to initiation of construction to describe how trees that will not be removed will be protected. The construction-phase Tree Preservation Plan shall include the following tree protection measures, which are based on guidelines established by the International Society for Arboriculture:</p> <ul style="list-style-type: none"> Establish an area surrounding individual trees or groups of trees to be protected during construction as defined by a circle concentric with each tree with a radius 1-1/2 times the diameter of the tree canopy drip line. This Tree Protection Zone is established to protect the tree trunk, canopy and root system from damage during construction activities and to ensure the long-term survival of the protected trees. The Tree Protection Zone shall: (1) ensure that no structures or buildings, that might restrict sunlight relative to the existing condition, will be constructed in proximity to the trees; and (2) that no improvements are constructed on the ground around the tree within the Tree Protection Zone, thus ensuring that there is sufficient undisturbed native soil surrounding the tree to provide adequate moisture, soil nutrients and oxygen for healthy root growth. 	<p>Department of Community Development to determine whether ordinance applies to trees in the Master Plan area</p> <p>Contractor(s) to prepare construction plans maximizing avoidance of trees</p> <p>City or contractor to retain a qualified arborist to prepare Tree Preservation Plan</p> <p>Contractor(s) to implement Tree Preservation Plan measures</p>	City of Sunnyvale Public Works Department	<p>Review qualifications of Contractor-nominated arborist and either approve or recommend identification of additional candidates.</p> <p>Verify inclusion of the Plan measures in construction plans</p>	Prior to construction within Master Plan area	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
<ul style="list-style-type: none">Protect tree root systems from damage caused by (a) runoff or spillage of noxious materials while mixing, placing, or storing construction materials and (b) ponding, eroding, or excessive wetting caused by dewatering operations through use of the following measures during excavation and grading:<ul style="list-style-type: none">Excavation: Do not trench inside tree protection zones. Hand excavate under or around tree roots to a depth of 3 feet. Do not cut main lateral tree roots or taproots. Protect exposed roots from drying out before placing permanent backfill.Grading: Maintain existing grades within tree protection zones. Where existing grade is 2 inches or less below elevation of finish grade, backfill with topsoil or native site soil. Place fill soil in a single uncompacted layer and hand grade to required finish elevation.Apply 6-inch average thickness of wood bark mulch inside tree protection zones. Keep mulch 6 inches from tree trunks.Provide 48-inch tall orange plastic construction fencing fastened to steel T-posts, minimum six (6) feet in length, using heavyweight plastic ratchet ties. Install fence along edges of tree protection zones before materials or equipment are brought on site and construction operations begin. Maintain fence in place until construction operations are complete and equipment has been removed from site. <p>Provide temporary irrigation to all trees in protection zones that may have important root systems impacted by construction.</p>					
Hazards and Hazardous Materials					
Mitigation Measure HAZ-2a: Hazardous Building Materials Abatement. <p>The City shall ensure that, prior to demolition, the building is surveyed for hazardous building materials including, electrical equipment containing polychlorinated biphenyl (PCBs), fluorescent light ballasts containing PCBs or bis(2-ethylhexyl) phthalate (DEHP), and fluorescent light tubes containing mercury vapors. These materials shall be removed and properly disposed of prior to the start of demolition or renovation. Light ballasts that are proposed to be removed during renovation shall be evaluated for the presence of PCBs and in the case where the presence of PCBs in the light ballast cannot be verified, they shall be assumed to contain PCBs, and handled and disposed of as such, according to applicable laws and regulations. Any other hazardous building materials identified either before or during demolition or renovation shall be abated according to federal, state, and local laws and regulations.</p>	City or contractor(s) to conduct survey for hazardous building materials Contractor to remove and properly dispose of materials as described	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications Review survey results Confirm handling and disposal performed in compliance with laws and regulations	Prior to ground disturbance During demolition	<i>Verified by:</i> <i>Date:</i>
Mitigation Measure HAZ-2b: Health and Safety Plan. <p>For each Master Plan improvement involving ground disturbing activities, the City or its contractor will prepare a Health and Safety Plan in accordance with federal OSHA regulations (29 CFR 1910.120) and Cal/OSHA regulations (8 CCR Title 8, Section 5192). Each Plan will be based on all activities proposed as part of the specific project and include designated personnel responsible for implementation of the Plan. The City will require each contractor for each individual construction contract to implement a Plan. Each Plan will include all required measures to protect construction workers and the general public potentially exposed to hazardous materials or wastes by including engineering controls, monitoring, and security measures to prevent dangerous levels of exposure and unauthorized entry to the construction area, and to reduce hazards outside of any construction area. If prescribed contaminant exposure levels are exceeded, personal protective equipment shall be required for workers in accordance with state and federal regulations. Compliance with the Health and Safety Plan will not be construed as approval of the adequacy of the contractor's health and safety professional's qualifications or any safety measure taken in or near the construction site. The contractor will 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.</p>	Contractor(s) to prepare Health and Safety Plan and incorporate Plan in construction plans Contractor(s) to implement Plan	City of Sunnyvale Public Works Department	Review each Health and Safety Plan Verify inclusion of Plan in contract specifications for each individual construction contract	Prior to ground disturbance	<i>Verified by:</i> <i>Date:</i>
Mitigation Measure HAZ-2c: Soil and Groundwater Management Plan. <p>For any elements involving ground disturbing activities, the City will require the construction contractor to implement a Soil and Groundwater Management Plan, subject to review by the City that specifies the method for handling and disposal of contaminated soil and groundwater prior to demolition, excavation, and construction activities. The plan will include all necessary procedures to ensure that any excavated materials and fluids from throughout the Master Plan area 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 will include the following information.</p> <ul style="list-style-type: none">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.Procedures to be implemented if unknown subsurface conditions or contamination are encountered, such as previously unreported tanks, wells, or contaminated soils.Detailed control measures for use and storage of hazardous materials to prevent the release of pollutants to the environment, and emergency procedures for the containment and cleanup of accidental releases of hazardous materials to minimize the impacts of any such release. These procedures shall also include reporting requirements in the event of a reportable spill or other emergency incident. At a minimum, the City or its contractor shall notify applicable agencies in accordance with guidance from the California Office of Emergency Services as well as the Santa Clara County Environmental Health Department.Procedures for containment, handling and disposal of groundwater generated from construction dewatering, the method used to analyze groundwater for hazardous materials likely to be encountered at specific locations and the appropriate treatment and/or disposal methods.	Contractor to prepare Soil and Groundwater Management Plan Contractor to implement Plan	City of Sunnyvale Public Works Department	Review Soil and Groundwater Management Plan Verify inclusion of Plan in contract specifications	Prior to ground disturbance	<i>Verified by:</i> <i>Date:</i>

TABLE 7 (CONTINUED)
MITIGATION MONITORING AND REPORTING PROGRAM – SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Cultural Resources					
<p>Mitigation Measure CUL-2: Unanticipated Discovery of Archaeological Resources.</p> <p>If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet will halt and the City of Sunnyvale will be notified. 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); and battered stone tools, such as hammerstones and pitted stones. Historic-era materials might include deposits of metal, glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation will be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist will prepare and implement a detailed treatment plan in consultation with City of Sunnyvale and, for prehistoric resources, the appropriate Native American representative. Treatment of unique archaeological resources will follow the applicable requirements of PRC Section 21083.2.</p> <p>Treatment for most resources would consist of (but would not 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 will 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.</p>	<p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p> <p>Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery</p> <p>Archaeologist, City, and contractor to implement mitigation as determined by archaeologist</p>	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure CUL-3: Unanticipated Discovery of Paleontological Resources.</p> <p>If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during ground-disturbing activities, work will stop in that area and within 100 feet of the find until a qualified paleontologist can assess the nature and importance of the find and, if necessary, develop appropriate treatment measures in conformance with Society of Vertebrate Paleontology standards, and in consultation with the City of Sunnyvale.</p>	<p>City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources</p> <p>Contractor to notify City of Sunnyvale if resources encountered</p>	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	<p><i>Verified by:</i></p> <p><i>Date:</i></p>
<p>Mitigation Measure CUL-4: Unanticipated Discovery of Human Remains.</p> <p>In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find will cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The NAHC will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the City of Sunnyvale (or, for the WPF, the District) for the appropriate means of treating the human remains and any grave goods.</p>	<p>Contractor(s) shall monitor worker activities</p> <p>Contractor(s) shall halt work and notify the County Coroner, if necessary. If appropriate, Coroner shall notify NAHC. NAHC shall notify Most Likely Descendant (MLD).</p>	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	<p><i>Verified by:</i></p> <p><i>Date:</i></p>

TABLE 8
ADOPTED MITIGATION MEASURES THAT DO NOT APPLY TO THE SITE PREPARATION AND EXISTING PLANT REHABILITATION PROJECT

Adopted Mitigation Measures	Reason Measure Does Not Apply to Site Preparation And Existing Plant Rehabilitation Project
Mitigation Measure NOI-1: Develop and Implement Construction Noise Logistics Plan.	Does not apply due to construction hours
Mitigation Measure AQ-2b: Implement BAAQMD Additional Construction Mitigation Measures	Does not apply due to nature of project activities.
Mitigation Measure BIO-1b: Prevent the Introduction and Spread of Non-native, Invasive Species	Does not apply due to location.
Mitigation Measure BIO-2c: Special-Status Fish Measures.	Does not apply due to location.
Mitigation Measure BIO-2d: Western Pond Turtle Measures	Does not apply due to location.
Mitigation Measure BIO-3a: Avoidance of Open Water and Wetland Habitats.	Does not apply due to location.
Mitigation Measure BIO-3b: Compensatory Mitigation for Aquatic and Wetland Habitats.	Does not apply due to nature of project activities.
Mitigation Measure BIO-4b: Master Plan Compensation for Impacts on Protected Trees	Does not apply because no protected trees would be removed.
Mitigation Measure HYD-2: Hydraulic Analysis of Levee Widening.	Does not apply due to nature of project activities.
Mitigation Measure HYD-3a: Flood Hazard Assessment and Design For Diurnal Equalization Tanks, Pump Station, and Pipeline.	Does not apply due to nature of project activities.
Mitigation Measure HYD-3b: Restoration Plan for Ponds 1 and 2.	Does not apply due to nature of project activities.
Mitigation Measure HYD-3c: Flood Protection Prior to Levee Breaching.	Does not apply due to nature of project activities.
Mitigation Measure WQ-4: Water Quality Evaluation and Control Plan for Oxidation Pond Breaching and Restoration.	Does not apply due to nature of project activities.
Mitigation Measure CUL-1. Assessment of Effects to Cargill Channel.	Does not apply due to nature of project and location.
Mitigation Measure AES-1: Levee Plantings and Visual Screening.	Does not apply due to nature of project and location.
Mitigation Measure GI-1: Update Projections.	Does not apply due to nature of project activities.

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APPENDIX A

Air Quality Supporting Information

CONSTRUCTION SCHEDULE

	Construction Phase	Start Date	End Date	Number of workdays in Phase
1.0	SITE PREP PROJECT	2/23/2021	11/23/2022	457
1.1	Sitework	7/30/2021	8/23/2022	278
1.2	Plant Site Utilities	9/13/2021	2/3/2022	104
1.3	Carl Road Utilities Relocation (Durations include required Night-time Shifts)	6/10/2021	8/11/2022	306
1.4	Auxiliary Pump Station Structure Demolition	7/27/2022	10/17/2022	59
1.5	Primary Sedimentation Tank Demolition	10/6/2021	2/1/2022	85
1.6	Construct Temporary Facilities at Baylands Park	9/20/2021	12/1/2021	53
1.7	Construct Temporary Facilities at WPCP	2/23/2021	6/21/2022	346
1.8	Admin Building Demolition	6/29/2022	9/8/2022	52
1.9	Primary Control Building and Maintenance Building Demolition	6/9/2022	10/21/2022	97
1.10	South Segment Perimeter Wall Construction	9/9/2022	11/23/2022	54
2.0	PLANT REHABILITATION PROJECT	12/3/2021	11/21/2023	513
2.1	Sitework	3/2/22	6/16/22	77
2.2	Site Utilities	3/16/22	7/22/22	93
2.3	Cured-in-Place Pipe Work (Bid Alternates)	12/3/21	8/12/22	181
2.4	Perimeter Wall and Fencing	5/11/23	11/21/23	139
2.5	ACS Integration, Substation and MCC Work	10/26/22	4/13/23	122
2.6	Fixed Growth Reactors 1 and 3	7/1/22	10/25/22	83
2.7	Air Flotation Tanks 2 and 3	8/1/22	9/20/22	37
2.8	Pond Circulation Pump Station	4/14/23	5/10/23	19
2.9	Tertiary Control Building	10/26/22	11/8/22	10
2.10	Dual Media Filters (Complete One Filter at a Time)	7/1/22	8/11/22	30
2.11	Tertiary/DMF Structure and Equipment	8/1/22	9/12/22	31
2.12	Chlorine Contact Tank Channels (Complete one CCT at at Time)	6/3/22	10/22/22	101
2.13	3W Pump Station	7/18/22	9/26/22	51

CONSTRUCTION VEHICLE TRIPS BY PHASE

	Construction Phase	Worker trips/day	Truck Trips per day	Workdays in Phase	Truck Trips per phase
SITE PREP PROJECT					
1.1	Sitework	2	6	278	1668
1.2	Plant Site Utilities	9	14	104	1456
1.3	Carl Road Utilities Relocation (Durations include required Night-time Shifts)	8	14	306	4284
1.4	Auxiliary Pump Station Structure Demolition	4	8	59	472
1.5	Primary Sedimentation Tank Demolition	38	8	85	680
1.6	Construct Temporary Facilities at Baylands Park	4	10	53	530
1.7	Construct Temporary Facilities at WPCP	1	10	346	3460
1.8	Admin Building Demolition	6	12	52	624
1.9	Primary Control Building and Maintenance Building Demolition	13	12	97	1164
1.10	South Segment Perimeter Wall Construction	13	20	54	1080
	Overall Project/General Conditions - Supervisory Construction Staff	12	8	457	3656
PLANT REHABILITATION PROJECT					
2.1	Sitework	6	4	77	304
2.2	Site Utilities	8	4	93	372
2.3	Cured-in-Place Pipe Work (Bid Alternates)	4	4	181	724
2.4	Perimeter Wall and Fencing	45	14	139	1984
2.5	ACS Integration, Substation and MCC Work	55	4	122	488
2.6	Fixed Growth Reactors 1 and 3	29	4	83	332
2.7	Air Flotation Tanks 2 and 3	69	2	37	74
2.8	Pond Circulation Pump Station	27	6	19	114
2.9	Tertiary Control Building	23	2	10	20
2.10	Dual Media Filters (Complete One Filter at a Time)	56	4	30	120
2.11	Tertiary/DMF Structure and Equipment	22	4	31	124
2.12	Chlorine Contact Tank Channels (Complete one CCT at at Time)	41	2	101	202
2.13	3W Pump Station	122	2	51	102

CONSTRUCTION EQUIPMENT AND ACTIVITY BY PHASE - SITE PREP PROJECT

	Equipment	Number	Avg Operation, Hrs/Day	Workdays Used	Assumed hp	Adjusted hrs/day based on Workdays Used
1.1	Sitework					
	Excavator	2	6	35	188	0.8
	Grader	2	6	37	173	0.8
	Paving Equipment	2	6	32	174	0.7
1.2	Plant Site Utilities					
	Excavator	2	6	70	188	4.0
	Dozer/Loader	1	6	13	105	0.8
	Grader	1	6	27	173	1.5
	Roller	1	6	30	95	1.7
	Hauling On Site	1	6	10	350	0.6
	Hauling Off Site	1	6	20	350	1.2
	Paving Equipment	1	6	17	174	1.0
	Crawler Crane/RT Crane	1	6	7	350	0.4
	Pile Drivers	1	6	33	250	1.9
1.3	Carl Road Utilities Relocation (Durations include required Night-time Shifts)					
	Excavator	2	6	60	188	1.2
	Dozer/Loader	1	6	13	105	0.3
	Grader	1	6	20	173	0.4
	Roller	1	6	17	95	0.3
	Hauling On Site	1	6	10	350	0.2
	Hauling Off Site	1	6	20	350	0.4
	Paving Equipment	1	6	17	174	0.3
	Crawler Crane/RT Crane	1	6	7	350	0.1
	Pile Drivers	1	6	27	250	0.5
1.4	Auxiliary Pump Station Structure Demolition					
	Excavator	1	6	30	188	3.1
	Dozer/Loader	1	6	11	105	1.1
	Grader	1	6	2	173	0.2
	Roller	1	6	2	95	0.2
	Hauling On Site	1	6	3	350	0.3
	Hauling Off Site	1	6	11	350	1.2
	Crawler Crane/RT Crane	1	6	30	350	3.0
	Pile Drivers	1	6	5	250	0.5
1.5	Primary Sedimentation Tank Demolition					
	Excavator	4	6	75	188	5.3
	Dozer/Loader	2	6	54	105	3.8
	Grader	1	6	20	173	1.4
	Roller	1	6	20	95	1.4
	Hauling On Site	1	6	33	350	2.3
	Hauling Off Site	2	6	57	350	4.0
	Crawler Crane/RT Crane	4	6	74	350	5.2
	Pile Drivers	1	6	50	250	3.5
1.6	Construct Temporary Facilities at Baylands Park					
	Excavator	1	6	17	188	1.9
	Paving Equipment	1	6	10	174	1.1
	Crawler Crane/RT Crane	1	6	7	350	0.8

CONSTRUCTION EQUIPMENT AND ACTIVITY BY PHASE - SITE PREP PROJECT

1.7	Construct Temporary Facilities at WPCP					
	Excavator	1	6	33	188	0.6
	Dozer/Loader	1	6	20	105	0.3
	Grader	1	6	20	173	0.3
	Roller	1	6	20	95	0.3
	Paving Equipment	1	6	27	174	0.5
	Crawler Crane/RT Crane	1	6	33	350	0.6
1.8	Admin Building Demolition					
	Excavator	2	6	30	188	3.5
	Dozer/Loader	1	6	11	105	1.3
	Grader	1	6	2	173	0.2
	Roller	1	6	2	95	0.2
	Crawler Crane/RT Crane	2	6	26	350	3.0
1.9	Primary Control Building and Maintenance Building Demolition					
	Excavator	2	6	75	188	4.6
	Dozer/Loader	1	6	54	105	3.4
	Grader	1	6	10	173	0.6
	Roller	1	6	10	95	0.6
	Hauling On Site	1	6	16	350	1.0
	Hauling Off Site	1	6	57	350	3.5
	Crawler Crane/RT Crane	2	6	74	350	4.6
	Pile Drivers	1	6	60	250	3.7
1.10	South Segment Perimeter Wall Construction					
	Excavator	1	6	33	188	3.7
	Dozer/Loader	1	6	7	105	0.7
	Grader	1	6	13	173	1.5
	Roller	1	6	13	95	1.5
	Concrete Truck	2	6	27	300	3.0
	Overall Project/General Conditions - Supervisory Construction Staff					
	Water Truck	1	8	229	189	4.0

CONSTRUCTION EQUIPMENT AND ACTIVITY - PLANT REHABILITATION PROJECT

	Equipment	Number	Avg Operation, Hrs/Day	Work Days Used	Assumed hp	Adjusted hrs/day based on Workdays Used
2.1	Sitework					
	Grader	1	0.5	77	173	0.5
	Excavator	1	2	77	188	2.0
	Haul Trucks	1	2	77	350	2.0
	Dozer/Loader	1	1	77	105	1.0
	Water Truck	1	0.5	77	189	0.5
2.2	Site Utilities					
	Excavator	1	1	93	188	1.0
	Dozer/Loader	1	1	93	105	1.0
2.3	Cured-In-Place Pipe					
	Crane	1	2	181	350	2.0
	Pumps	4	24	181	84	24.0
	Forklift	1	2	181	110	2.0
	Pickup Truck	1	8	181	250	8.0
2.4	Perimeter Wall and Fencing					
	Grader	1	1	139	173	1.0
	Excavator	2	6	139	188	6.0
	Dozer/Loader	1	6	139	105	6.0
	Crane	1	2	139	350	2.0
	Concrete Trucks	1	8	139	300	8.0
	Water Truck	1	2	139	189	2.0
	Pile Drivers	1	2	139	250	2.0
	Pickup Truck	1	8	139	250	8.0
2.5	ACS Integration, Substation and MCC Work					
	Grader	1	0.2	122	173	0.2
	Dozer/Loader	1	0.2	122	105	0.2
	Concrete Trucks	1	0.2	122	300	0.2
	Water Truck	1	0.2	122	189	0.2
	Forklift	1	2	122	110	2.0
	Pickup Truck	2	8	122	250	8.0
2.6	Fixed Growth Reactors 1 and 3					
	Crane	1	2	83	350	2.0
	Forklift	1	2	83	110	2.0
	Pickup Truck	1	8	83	250	8.0
2.7	Air Flotation Tanks 2 and 3					
	Crane	1	2	37	350	2.0
	Forklift	1	2	37	110	2.0
	Pickup Truck	1	8	37	250	8.0

CONSTRUCTION EQUIPMENT AND ACTIVITY - PLANT REHABILITATION PROJECT

	Equipment	Number	Avg Operation, Hrs/Day	Work Days Used	Assumed hp	Adjusted hrs/day based on Workdays Used
2.8	Pond Circulation Pump Station					
	Crane	1	2	19	350	2.0
	Forklift	1	2	19	110	2.0
	Generator	1	24	7	200	8.8
	Pickup Truck	1	8	19	250	8.0
2.9	Tertiary Control Building					
	Crane	1	2	10	350	2.0
	Forklift	1	2	10	110	2.0
	Pickup Truck	1	8	10	250	8.0
2.10	Dual Media Filters (Complete One Filter at a Time)					
	Crane	1	2	30	350	2.0
	Forklift	1	2	30	110	2.0
	Pickup Truck	1	8	30	250	8.0
2.11	Tertiary/DMF Structure and Equipment					
	Crane	1	2	31	350	2.0
	Forklift	1	2	31	110	2.0
	Pickup Truck	1	8	31	250	8.0
2.12	Chlorine Contact Tank Channels (Complete one CCT at at Time)					
	Crane	1	2	101	350	2.0
	Pumps	1	16	101	84	16.0
	Forklift	1	2	101	110	2.0
	Pickup Truck	1	8	101	250	8.0
2.13	3W Pump Station					
	Crane	1	2	51	350	2.0
	Pumps	1	4	51	84	4.0
	Forklift	1	2	51	110	2.0
	Pickup Truck	1	8	51	250	8.0

EMISSIONS SUMMARIES

UNCONTROLLED CONSTRUCTION EMISSIONS - Criteria Air Pollutants

Construction Year	No. of Workdays	Tons over Construction Period				Average Pounds per day			
		ROG	NOx	Exhaust PM-10	Exhaust PM-2.5	ROG	NOx	Exhaust PM-10	Exhaust PM-2.5
2021	224	0.3046	3.7622	0.115	0.1077	2.7	33.6	1.0	1.0
2022	260	0.8076	7.8621	0.2995	0.289	6.2	60.5	2.3	2.2
2023	232	0.1426	1.1374	0.0368	0.034	1.2	9.8	0.3	0.3
Total	716	1.25	12.76	0.45	0.43	3.5	35.6	1.3	1.2

CONSTRUCTION EMISSIONS - GHG as CO₂e

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e ¹
2021	774	0.1295	0	778
2022	1806	0.2588	0	1812
2023	391	0.0882	0	393
Total	2971	0.4765	0	2983
Project life				30
Amortized annual emissions				99.4

NOTES:

1. CO₂e equivalents calculated using GWP of 25 and 298 for CH₄ and N₂O, respectively based on AR4 GWPs used for the 2000-2017 emission inventory

Sunnyvale Site Prep and Plant Rehabilitation Projects - Santa Clara County, Annual

Sunnyvale Site Prep and Plant Rehabilitation Projects

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1.00	1000sqft	1.00	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	210	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - <http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf>

Land Use - Unit sizes assumed as operational emissions are not estimated in this run

Construction Phase - From applicant

Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

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Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

Off-road Equipment - Project data

Trips and VMT - Project data

Vehicle Trips - Operational emissions not estimated

Energy Use -

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3046	3.7622	2.3578	8.47E-03	0.2417	0.115	0.3567	0.0575	0.1077	0.1652	0	774.2903	774.2903	0.1295	0	777.5277
2022	0.8076	7.8621	7.1663	0.0202	0.4754	0.2995	0.7749	0.1322	0.289	0.4212	0	1,805.83	1,805.83	0.2588	0	1,812.30
2023	0.1426	1.1374	0.9955	4.35E-03	0.0645	0.0368	0.1013	0.0173	0.034	0.0513	0	391.1793	391.1793	0.0882	0	393.3853
Maximum	0.8076	7.8621	7.1663	0.0202	0.4754	0.2995	0.7749	0.1322	0.289	0.4212	0	1,805.83	1,805.83	0.2588	0	1,812.30

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3046	3.7622	2.3578	8.4700e-003	0.2417	0.1150	0.3567	0.0575	0.1077	0.1652	0.0000	774.2898	774.2898	0.1295	0.0000	777.5272
2022	0.8076	7.8621	7.1663	0.0202	0.4754	0.2995	0.7749	0.1322	0.2890	0.4212	0.0000	1,805.8327	1,805.8327	0.2588	0.0000	1,812.3022
2023	0.1426	1.1374	0.9955	4.3500e-003	0.0645	0.0368	0.1013	0.0173	0.0340	0.0513	0.0000	391.1789	391.1789	0.0882	0.0000	393.3850
Maximum	0.8076	7.8621	7.1663	0.0202	0.4754	0.2995	0.7749	0.1322	0.2890	0.4212	0.0000	1,805.8327	1,805.8327	0.2588	0.0000	1,812.3022

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-10-2021	9-9-2021	0.6481	0.6481
2	9-10-2021	12-9-2021	2.0288	2.0288
3	12-10-2021	3-9-2022	2.9179	2.9179
4	3-10-2022	6-9-2022	2.3144	2.3144
5	6-10-2022	9-9-2022	3.4071	3.4071
6	9-10-2022	12-9-2022	0.8690	0.8690
7	12-10-2022	3-9-2023	0.2357	0.2357

8	3-10-2023	6-9-2023	0.3246	0.3246
9	6-10-2023	9-9-2023	0.4366	0.4366
10	9-10-2023	9-30-2023	0.0997	0.0997
		Highest	3.4071	3.4071

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.4000e-004	1.2900e-003	1.0900e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	2.1945	2.1945	1.4000e-004	5.0000e-005	2.2123
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.1192	0.1926	7.5500e-003	1.8000e-004	0.4354
Total	4.5700e-003	1.2900e-003	1.1000e-003	1.0000e-005	0.0000	1.0000e-004	1.0000e-004	0.0000	1.0000e-004	1.0000e-004	0.3251	2.3138	2.6388	0.0226	2.3000e-004	3.2713

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.4300e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	1.4000e-004	1.2900e-003	1.0900e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	2.1945	2.1945	1.4000e-004	5.0000e-005	2.2123
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.2517	0.0000	0.2517	0.0149	0.0000	0.6236
Water						0.0000	0.0000		0.0000	0.0000	0.0734	0.1192	0.1926	7.5500e-003	1.8000e-004	0.4354
Total	4.5700e-003	1.2900e-003	1.1000e-003	1.0000e-005	0.0000	1.0000e-004	1.0000e-004	0.0000	1.0000e-004	1.0000e-004	0.3251	2.3138	2.6388	0.0226	2.3000e-004	3.2713

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Overall - Site Prep Project	Grading	2/23/2021	11/23/2022	5	457	
2	1.7 Construct Temporary Facilities at WPCP	Architectural Coating	2/23/2021	6/21/2022	5	346	
3	1.3 Carl Road Utilities Relocation	Grading	6/10/2021	8/11/2022	5	306	
4	1.1 Site Work	Site Preparation	7/30/2021	8/23/2022	5	278	
5	1.2 Plant Site Utilities	Paving	9/13/2021	2/3/2022	5	104	
6	1.6 Construct Temporary Facilities at Baylands Park	Building Construction	9/20/2021	12/1/2021	5	53	
7	1.5 Primary Sedimentation Tank Demolition	Demolition	10/6/2021	2/1/2022	5	85	
8	2.3 Cured-In-Place Pipe Work	Trenching	12/3/2021	8/12/2022	5	181	
9	2.1 Sitework	Site Preparation	3/2/2022	8/16/2022	5	77	
10	2.2 Site Utilities	Grading	3/16/2022	7/22/2022	5	93	
11	2.12 Chlorine Contact Tank	Building Construction	6/3/2022	10/22/2022	5	101	
12	1.9 Primary Control Building and Maintenance Building Demolition	Demolition	6/9/2022	10/21/2022	5	97	
13	1.10 South Segment Perimeter Wall Construction	Building Construction	6/9/2022	8/23/2022	5	54	
14	1.8 Admin Building Demolition	Demolition	6/29/2022	9/8/2022	5	52	
15	2.10 Dual Media Filters	Building Construction	7/1/2022	8/11/2022	5	30	

16	2.6 Fixed Growth Reactors 1 and 3	Building Construction	7/1/2022	10/25/2022	5	83
17	2.13 3W Pump Station	Building Construction	7/18/2022	9/26/2022	5	51
18	1.4 Auxiliary Pump Station Structure Demolition	Demolition	7/27/2022	10/17/2022	5	59
19	2.11 Tertiary/DMF Structure and Equipment	Building Construction	8/1/2022	9/12/2022	5	31
20	2.7 Air Flotation Tanks 2 and 3	Building Construction	8/1/2022	9/20/2022	5	37
21	2.5 ACS Integration, Substation and MCC Work	Building Construction	10/26/2022	4/13/2023	5	122
22	2.9 Tertiary Control Building	Building Construction	10/26/2022	11/8/2022	5	10
23	2.8 Pond Circulation Pump Station	Building Construction	4/14/2023	5/10/2023	5	19
24	2.4 Perimeter Wall and Fencing	Building Construction	5/11/2023	11/21/2023	5	139

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
1.7 Construct Temporary Facilities at WPCP	Air Compressors	0	0.00	78	0.48
1.7 Construct Temporary Facilities at WPCP	Cranes	1	2.40	350	0.29
1.7 Construct Temporary Facilities at WPCP	Excavators	1	2.40	188	0.38
1.7 Construct Temporary Facilities at WPCP	Graders	1	1.40	173	0.41
1.7 Construct Temporary Facilities at WPCP	Paving Equipment	1	1.90	174	0.36
1.7 Construct Temporary Facilities at WPCP	Rollers	1	1.40	95	0.38
1.7 Construct Temporary Facilities at WPCP	Rubber Tired Dozers	1	1.40	105	0.40
1.3 Carl Road Utilities Relocation	Cranes	1	0.10	350	0.29
1.3 Carl Road Utilities Relocation	Graders	2	1.20	188	0.41
1.3 Carl Road Utilities Relocation	Graders	1	0.40	173	0.41
1.3 Carl Road Utilities Relocation	Off-Highway Trucks	1	0.20	350	0.38
1.3 Carl Road Utilities Relocation	Other Construction Equipment	1	0.50	250	0.42
1.3 Carl Road Utilities Relocation	Paving Equipment	1	0.30	174	0.36
1.3 Carl Road Utilities Relocation	Rollers	1	0.30	95	0.38
1.3 Carl Road Utilities Relocation	Rubber Tired Dozers	1	0.30	105	0.40
1.3 Carl Road Utilities Relocation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1.1 Site Work	Excavators	2	0.80	188	0.38
1.1 Site Work	Graders	2	0.80	173	0.41
1.1 Site Work	Paving Equipment	2	0.70	174	0.36
1.1 Site Work	Rubber Tired Dozers	0	0.00	247	0.40
1.1 Site Work	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1.2 Plant Site Utilities	Cement and Mortar Mixers	0	0.00	9	0.56
1.2 Plant Site Utilities	Cranes	1	0.40	350	0.29
1.2 Plant Site Utilities	Excavators	2	4.00	188	0.38
1.2 Plant Site Utilities	Graders	1	1.50	173	0.41
1.2 Plant Site Utilities	Off-Highway Trucks	1	0.60	350	0.38
1.2 Plant Site Utilities	Other Construction Equipment	1	1.90	250	0.42
1.2 Plant Site Utilities	Pavers	0	0.00	130	0.42
1.2 Plant Site Utilities	Paving Equipment	1	1.00	174	0.36
1.2 Plant Site Utilities	Rollers	1	1.70	95	0.38
1.2 Plant Site Utilities	Rubber Tired Loaders	1	0.80	105	0.40
1.2 Plant Site Utilities	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1.6 Construct Temporary Facilities at Baylands Park	Cranes	1	0.80	350	0.29
1.6 Construct Temporary Facilities at Baylands Park	Excavators	1	1.90	188	0.38
1.6 Construct Temporary Facilities at Baylands Park	Forklifts	0	0.00	89	0.20
1.6 Construct Temporary Facilities at Baylands Park	Generator Sets	0	0.00	84	0.74

1.6 Construct Temporary Facilities at Baylands Park	Paving Equipment	1	1.10	174	0.36
1.6 Construct Temporary Facilities at Baylands Park	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1.6 Construct Temporary Facilities at Baylands Park	Welders	0	0.00	46	0.45
1.5 Primary Sedimentation Tank Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
1.5 Primary Sedimentation Tank Demolition	Cranes	4	5.30	350	0.29
1.5 Primary Sedimentation Tank Demolition	Excavators	4	5.40	188	0.38
1.5 Primary Sedimentation Tank Demolition	Graders	1	1.40	173	0.41
1.5 Primary Sedimentation Tank Demolition	Off-Highway Trucks	2	4.10	350	0.38
1.5 Primary Sedimentation Tank Demolition	Other Construction Equipment	1	3.60	250	0.42
1.5 Primary Sedimentation Tank Demolition	Rollers	1	1.40	95	0.38
1.5 Primary Sedimentation Tank Demolition	Rubber Tired Dozers	2	3.90	105	0.40
1.5 Primary Sedimentation Tank Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.3 Cured-In-Place Pipe Work	Cranes	1	2.00	350	0.29
2.3 Cured-In-Place Pipe Work	Forklifts	1	2.00	110	0.20
2.3 Cured-In-Place Pipe Work	Off-Highway Trucks	1	8.00	250	0.38
2.3 Cured-In-Place Pipe Work	Pumps	4	24.00	84	0.74
Overall - Site Prep Project	Graders	0	0.00	187	0.41
Overall - Site Prep Project	Off-Highway Trucks	1	4.00	189	0.38
Overall - Site Prep Project	Rubber Tired Dozers	0	0.00	247	0.40
Overall - Site Prep Project	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.1 Sitework	Excavators	1	2.00	188	0.38
2.1 Sitework	Graders	1	0.50	173	0.41
2.1 Sitework	Off-Highway Trucks	1	2.00	350	0.38
2.1 Sitework	Off-Highway Trucks	1	0.50	189	0.38
2.1 Sitework	Rubber Tired Dozers	1	1.00	105	0.40
2.1 Sitework	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.2 Site Utilities	Excavators	1	1.00	188	0.38
2.2 Site Utilities	Graders	0	0.00	187	0.41
2.2 Site Utilities	Rubber Tired Dozers	1	1.00	105	0.40
2.2 Site Utilities	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.12 Chlorine Contact Tank Channels	Cranes	1	2.00	350	0.29
2.12 Chlorine Contact Tank Channels	Forklifts	1	2.00	110	0.20
2.12 Chlorine Contact Tank Channels	Generator Sets	0	0.00	84	0.74
2.12 Chlorine Contact Tank Channels	Off-Highway Trucks	1	8.00	250	0.38
2.12 Chlorine Contact Tank Channels	Pumps	1	16.00	84	0.74
2.12 Chlorine Contact Tank Channels	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.12 Chlorine Contact Tank Channels	Welders	0	0.00	46	0.45
1.10 South Segment Perimeter Wall Construction	Cranes	0	0.00	231	0.29
1.10 South Segment Perimeter Wall Construction	Excavators	1	3.70	188	0.38
1.10 South Segment Perimeter Wall Construction	Forklifts	0	0.00	89	0.20
1.10 South Segment Perimeter Wall Construction	Generator Sets	0	0.00	84	0.74
1.10 South Segment Perimeter Wall Construction	Graders	1	1.50	173	0.41
1.10 South Segment Perimeter Wall Construction	Off-Highway Trucks	2	3.00	300	0.38
1.10 South Segment Perimeter Wall Construction	Rollers	1	1.50	95	0.38
1.10 South Segment Perimeter Wall Construction	Rubber Tired Dozers	1	0.70	105	0.40
1.10 South Segment Perimeter Wall Construction	Tractors/Loaders/Backhoes	0	0.00	0	0.37
1.10 South Segment Perimeter Wall Construction	Welders	0	0.00	46	0.45
1.9 Primary Control Building and Maintenance Building Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
1.9 Primary Control Building and Maintenance Building Demolition	Cranes	2	4.60	350	0.29
1.9 Primary Control Building and Maintenance Building Demolition	Excavators	2	4.60	188	0.38
1.9 Primary Control Building and Maintenance Building Demolition	Graders	1	0.60	173	0.41
1.9 Primary Control Building and Maintenance Building Demolition	Off-Highway Trucks	1	1.00	350	0.38
1.9 Primary Control Building and Maintenance Building Demolition	Other Construction Equipment	1	3.70	250	0.42
1.9 Primary Control Building and Maintenance Building Demolition	Rollers	1	0.60	95	0.38

1.9 Primary Control Building and Maintenance Building Demolition	Rubber Tired Dozers	1	0.70	105	0.40
1.9 Primary Control Building and Maintenance Building Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1.8 Admin Building Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
1.8 Admin Building Demolition	Cranes	2	3.00	350	0.29
1.8 Admin Building Demolition	Excavators	2	4.60	188	0.38
1.8 Admin Building Demolition	Graders	1	0.20	173	0.41
1.8 Admin Building Demolition	Rollers	1	0.20	95	0.38
1.8 Admin Building Demolition	Rubber Tired Dozers	1	1.30	105	0.40
1.8 Admin Building Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.10 Dual Media Filters	Cranes	1	2.00	350	0.29
2.10 Dual Media Filters	Forklifts	1	2.00	110	0.20
2.10 Dual Media Filters	Generator Sets	0	0.00	84	0.74
2.10 Dual Media Filters	Off-Highway Trucks	1	8.00	250	0.38
2.10 Dual Media Filters	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.10 Dual Media Filters	Welders	0	0.00	46	0.45
2.6 Fixed Growth Reactors 1 and 3	Cranes	1	2.00	350	0.29
2.6 Fixed Growth Reactors 1 and 3	Forklifts	1	2.00	110	0.20
2.6 Fixed Growth Reactors 1 and 3	Generator Sets	0	0.00	84	0.74
2.6 Fixed Growth Reactors 1 and 3	Off-Highway Trucks	1	8.00	250	0.38
2.6 Fixed Growth Reactors 1 and 3	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.6 Fixed Growth Reactors 1 and 3	Welders	0	0.00	46	0.45
2.13 3W Pump Station	Cranes	1	2.00	350	0.29
2.13 3W Pump Station	Forklifts	1	2.00	110	0.20
2.13 3W Pump Station	Generator Sets	0	0.00	84	0.74
2.13 3W Pump Station	Off-Highway Trucks	1	8.00	250	0.38
2.13 3W Pump Station	Pumps	1	4.00	84	0.74
2.13 3W Pump Station	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.13 3W Pump Station	Welders	0	0.00	46	0.45
1.4 Auxiliary Pump Station Structure Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
1.4 Auxiliary Pump Station Structure Demolition	Cranes	1	3.00	350	0.29
1.4 Auxiliary Pump Station Structure Demolition	Excavators	1	3.10	188	0.38
1.4 Auxiliary Pump Station Structure Demolition	Graders	1	0.20	173	0.41
1.4 Auxiliary Pump Station Structure Demolition	Off-Highway Trucks	1	0.30	350	0.38
1.4 Auxiliary Pump Station Structure Demolition	Other Construction Equipment	1	0.50	250	0.42
1.4 Auxiliary Pump Station Structure Demolition	Rollers	1	0.20	95	0.38
1.4 Auxiliary Pump Station Structure Demolition	Rubber Tired Dozers	1	1.10	105	0.40
1.4 Auxiliary Pump Station Structure Demolition	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.11 Tertiary/DMF Structure and Equipment	Cranes	1	2.00	350	0.29
2.11 Tertiary/DMF Structure and Equipment	Forklifts	1	2.00	110	0.20
2.11 Tertiary/DMF Structure and Equipment	Generator Sets	0	0.00	84	0.74
2.11 Tertiary/DMF Structure and Equipment	Off-Highway Trucks	1	8.00	250	0.38
2.11 Tertiary/DMF Structure and Equipment	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.11 Tertiary/DMF Structure and Equipment	Welders	0	0.00	46	0.45
2.7 Air Flotation Tanks 2 and 3	Cranes	1	2.00	350	0.29
2.7 Air Flotation Tanks 2 and 3	Forklifts	1	2.00	110	0.20
2.7 Air Flotation Tanks 2 and 3	Generator Sets	0	0.00	84	0.74
2.7 Air Flotation Tanks 2 and 3	Off-Highway Trucks	1	8.00	250	0.38
2.7 Air Flotation Tanks 2 and 3	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.7 Air Flotation Tanks 2 and 3	Welders	0	0.00	46	0.45
2.5 ACS Integration, Substation and MCC Work	Cranes	0	0.00	231	0.29
2.5 ACS Integration, Substation and MCC Work	Forklifts	1	2.00	110	0.20
2.5 ACS Integration, Substation and MCC Work	Generator Sets	0	0.00	84	0.74
2.5 ACS Integration, Substation and MCC Work	Graders	1	0.20	173	0.41
2.5 ACS Integration, Substation and MCC Work	Off-Highway Trucks	1	0.20	300	0.38

2.5 ACS Integration, Substation and MCC Work	Off-Highway Trucks	1	0.20	189	0.38
2.5 ACS Integration, Substation and MCC Work	Off-Highway Trucks	2	8.00	250	0.38
2.5 ACS Integration, Substation and MCC Work	Rubber Tired Dozers	1	0.20	105	0.40
2.5 ACS Integration, Substation and MCC Work	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.5 ACS Integration, Substation and MCC Work	Welders	0	0.00	46	0.45
2.9 Tertiary Control Building	Cranes	1	2.00	350	0.29
2.9 Tertiary Control Building	Forklifts	1	2.00	110	0.20
2.9 Tertiary Control Building	Generator Sets	0	0.00	84	0.74
2.9 Tertiary Control Building	Off-Highway Trucks	1	8.00	250	0.38
2.9 Tertiary Control Building	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.9 Tertiary Control Building	Welders	0	0.00	46	0.45
2.8 Pond Circulation Pump Station	Cranes	1	2.00	350	0.29
2.8 Pond Circulation Pump Station	Forklifts	1	2.00	110	0.20
2.8 Pond Circulation Pump Station	Generator Sets	1	8.80	200	0.74
2.8 Pond Circulation Pump Station	Off-Highway Trucks	1	8.00	250	0.38
2.8 Pond Circulation Pump Station	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.8 Pond Circulation Pump Station	Welders	0	0.00	46	0.45
2.4 Perimeter Wall and Fencing	Cranes	1	2.00	350	0.29
2.4 Perimeter Wall and Fencing	Excavators	2	6.00	188	0.38
2.4 Perimeter Wall and Fencing	Forklifts	0	0.00	89	0.20
2.4 Perimeter Wall and Fencing	Generator Sets	0	0.00	84	0.74
2.4 Perimeter Wall and Fencing	Graders	1	1.00	173	0.41
2.4 Perimeter Wall and Fencing	Off-Highway Trucks	1	8.00	300	0.38
2.4 Perimeter Wall and Fencing	Off-Highway Trucks	1	2.00	189	0.38
2.4 Perimeter Wall and Fencing	Off-Highway Trucks	1	8.00	250	0.38
2.4 Perimeter Wall and Fencing	Other Construction Equipment	1	2.00	250	0.42
2.4 Perimeter Wall and Fencing	Rubber Tired Dozers	1	6.00	105	0.40
2.4 Perimeter Wall and Fencing	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2.4 Perimeter Wall and Fencing	Welders	0	0.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
1.7 Construct Temporary Facilities at 1.3 Carl Road Utilities Relocation	6	1.00	0.00	3,460.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.1 Site Work	6	2.00	0.00	1,668.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.2 Plant Site Utilities	9	9.00	0.00	1,456.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.6 Construct Temporary Facilities at 1.5 Primary Sedimentation Tank	3	4.00	0.00	530.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.3 Cured-In-Place Pipe Work Overall - Site Prep Project	15	38.00	0.00	680.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.1 Sitework	7	4.00	0.00	724.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.2 Site Utilities	1	12.00	0.00	3,656.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.1 Sitework	5	6.00	0.00	304.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.2 Site Utilities	2	8.00	0.00	372.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.12 Chlorine Contact Tank Channels	4	41.00	0.00	202.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.10 South Segment Perimeter Wall	6	13.00	0.00	1,080.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.9 Primary Control Building and 1.8 Admin Building Demolition	9	13.00	0.00	1,164.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.10 Dual Media Filters	7	6.00	0.00	624.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.6 Fixed Growth Reactors 1 and 2	3	56.00	0.00	120.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.13 3W Pump Station	3	29.00	0.00	332.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
1.4 Auxiliary Pump Station Structure	4	122.00	0.00	102.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.11 Tertiary/DMF Structure and 2.7 Air Flotation Tanks 2 and 3	7	4.00	0.00	472.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.5 ACS Integration, Substation and MCC	3	22.00	0.00	124.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
	3	69.00	0.00	74.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
	7	55.00	0.00	488.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

2.9 Tertiary Control Building	3	23.00	0.00	20.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.8 Pond Circulation Pump Station	4	27.00	0.00	114.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
2.4 Perimeter Wall and Fencing	9	45.00	0.00	1,984.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Overall - Site Prep Project - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0702	0.0000	0.0702	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0177	0.1496	0.0957	3.4000e-004		5.8200e-003	5.8200e-003		5.3600e-003	5.3600e-003	0.0000	30.2573	30.2573	9.7900e-003	0.0000	30.5019
Total	0.0177	0.1496	0.0957	3.4000e-004	0.0702	5.8200e-003	0.0760	7.5800e-003	5.3600e-003	0.0129	0.0000	30.2573	30.2573	9.7900e-003	0.0000	30.5019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0300e-003	0.2396	0.0522	7.0000e-004	0.0270	7.5000e-004	0.0278	7.0800e-003	7.2000e-004	7.8000e-003	0.0000	67.4718	67.4718	3.0600e-003	0.0000	67.5483
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1400e-003	2.8700e-003	0.0307	1.0000e-004	0.0107	7.0000e-005	0.0107	2.8300e-003	6.0000e-005	2.9000e-003	0.0000	8.8239	8.8239	2.0000e-004	0.0000	8.8289
Total	0.0112	0.2425	0.0830	8.0000e-004	0.0377	8.2000e-004	0.0385	9.9100e-003	7.8000e-004	0.0107	0.0000	76.2957	76.2957	3.2600e-003	0.0000	76.3772

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0702	0.0000	0.0702	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0177	0.1496	0.0957	3.4000e-004		5.8200e-003	5.8200e-003		5.3600e-003	5.3600e-003	0.0000	30.2572	30.2572	9.7900e-003	0.0000	30.5019
Total	0.0177	0.1496	0.0957	3.4000e-004	0.0702	5.8200e-003	0.0760	7.5800e-003	5.3600e-003	0.0129	0.0000	30.2572	30.2572	9.7900e-003	0.0000	30.5019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0300e-003	0.2396	0.0522	7.0000e-004	0.0270	7.5000e-004	0.0278	7.0800e-003	7.2000e-004	7.8000e-003	0.0000	67.4718	67.4718	3.0600e-003	0.0000	67.5483
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1400e-003	2.8700e-003	0.0307	1.0000e-004	0.0107	7.0000e-005	0.0107	2.8300e-003	6.0000e-005	2.9000e-003	0.0000	8.8239	8.8239	2.0000e-004	0.0000	8.8289
Total	0.0112	0.2425	0.0830	8.0000e-004	0.0377	8.2000e-004	0.0385	9.9100e-003	7.8000e-004	0.0107	0.0000	76.2957	76.2957	3.2600e-003	0.0000	76.3772

3.2 Overall - Site Prep Project - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0702	0.0000	0.0702	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1194	0.0943	3.6000e-004		4.7000e-003	4.7000e-003		4.3200e-003	4.3200e-003	0.0000	31.4343	31.4343	0.0102	0.0000	31.6884

Total	0.0158	0.1194	0.0943	3.6000e-004	0.0702	4.7000e-003	0.0749	7.5800e-003	4.3200e-003	0.0119	0.0000	31.4343	31.4343	0.0102	0.0000	31.6884
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8900e-003	0.2289	0.0534	7.1000e-004	0.0272	6.7000e-004	0.0278	7.1400e-003	6.4000e-004	7.7800e-003	0.0000	69.2365	69.2365	3.1100e-003	0.0000	69.3143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6800e-003	0.0294	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9500e-003	6.0000e-005	3.0100e-003	0.0000	8.8451	8.8451	1.9000e-004	0.0000	8.8497
Total	0.0109	0.2316	0.0828	8.1000e-004	0.0383	7.4000e-004	0.0390	0.0101	7.0000e-004	0.0108	0.0000	78.0816	78.0816	3.3000e-003	0.0000	78.1641

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0702	0.0000	0.0702	7.5800e-003	0.0000	7.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1194	0.0943	3.6000e-004		4.7000e-003	4.7000e-003		4.3200e-003	4.3200e-003	0.0000	31.4342	31.4342	0.0102	0.0000	31.6884
Total	0.0158	0.1194	0.0943	3.6000e-004	0.0702	4.7000e-003	0.0749	7.5800e-003	4.3200e-003	0.0119	0.0000	31.4342	31.4342	0.0102	0.0000	31.6884

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8900e-003	0.2289	0.0534	7.1000e-004	0.0272	6.7000e-004	0.0278	7.1400e-003	6.4000e-004	7.7800e-003	0.0000	69.2365	69.2365	3.1100e-003	0.0000	69.3143
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0200e-003	2.6800e-003	0.0294	1.0000e-004	0.0111	7.0000e-005	0.0112	2.9500e-003	6.0000e-005	3.0100e-003	0.0000	8.8451	8.8451	1.9000e-004	0.0000	8.8497
Total	0.0109	0.2316	0.0828	8.1000e-004	0.0383	7.4000e-004	0.0390	0.0101	7.0000e-004	0.0108	0.0000	78.0816	78.0816	3.3000e-003	0.0000	78.1641

3.3 1.7 Construct Temporary Facilities at WPCP - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.5108	0.4141	8.2000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	72.4565	72.4565	0.0234	0.0000	73.0424
Total	0.0516	0.5108	0.4141	8.2000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	72.4565	72.4565	0.0234	0.0000	73.0424

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7800e-003	0.2995	0.0653	8.7000e-004	0.0267	9.4000e-004	0.0277	7.1200e-003	8.9000e-004	8.0200e-003	0.0000	84.3397	84.3397	3.8300e-003	0.0000	84.4354
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.4000e-004	2.5600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7353	0.7353	2.0000e-005	0.0000	0.7357
Total	9.1300e-003	0.2998	0.0678	8.8000e-004	0.0276	9.5000e-004	0.0286	7.3600e-003	9.9000e-004	8.2600e-003	0.0000	85.0750	85.0750	3.8500e-003	0.0000	85.1711

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.3800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.5108	0.4141	8.2000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	72.4564	72.4564	0.0234	0.0000	73.0423
Total	0.0516	0.5108	0.4141	8.2000e-004		0.0233	0.0233		0.0214	0.0214	0.0000	72.4564	72.4564	0.0234	0.0000	73.0423

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.7800e-003	0.2995	0.0653	8.7000e-004	0.0267	9.4000e-004	0.0277	7.1200e-003	8.9000e-004	8.0200e-003	0.0000	84.3397	84.3397	3.8300e-003	0.0000	84.4354
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5000e-004	2.4000e-004	2.5600e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.7353	0.7353	2.0000e-005	0.0000	0.7357
Total	9.1300e-003	0.2998	0.0678	8.8000e-004	0.0276	9.5000e-004	0.0286	7.3600e-003	9.0000e-004	8.2600e-003	0.0000	85.0750	85.0750	3.8500e-003	0.0000	85.1711

3.3 1.7 Construct Temporary Facilities at WPCP - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0234	0.2369	0.2165	4.5000e-004		0.0108	0.0108		9.9200e-003	9.9200e-003	0.0000	39.4608	39.4608	0.0128	0.0000	39.7799
Total	0.0252	0.2369	0.2165	4.5000e-004		0.0108	0.0108		9.9200e-003	9.9200e-003	0.0000	39.4608	39.4608	0.0128	0.0000	39.7799

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5100e-003	0.1498	0.0349	4.7000e-004	0.0246	4.4000e-004	0.0250	6.3300e-003	4.2000e-004	6.7500e-003	0.0000	45.3157	45.3157	2.0400e-003	0.0000	45.3667
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.2800e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3859	0.3859	1.0000e-005	0.0000	0.3862
Total	4.6900e-003	0.1499	0.0362	4.7000e-004	0.0250	4.4000e-004	0.0255	6.4600e-003	4.2000e-004	6.8800e-003	0.0000	45.7017	45.7017	2.0500e-003	0.0000	45.7528

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0234	0.2369	0.2165	4.5000e-004		0.0108	0.0108		9.9200e-003	9.9200e-003	0.0000	39.4607	39.4607	0.0128	0.0000	39.7798
Total	0.0252	0.2369	0.2165	4.5000e-004		0.0108	0.0108		9.9200e-003	9.9200e-003	0.0000	39.4607	39.4607	0.0128	0.0000	39.7798

Mitigated Construction Off-Site

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

Hauling	4.5100e-003	0.1498	0.0349	4.7000e-004	0.0246	4.4000e-004	0.0250	6.3300e-003	4.2000e-004	6.7500e-003	0.0000	45.3157	45.3157	2.0400e-003	0.0000	45.3867
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.2800e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3859	0.3859	1.0000e-005	0.0000	0.3862
Total	4.6900e-003	0.1499	0.0362	4.7000e-004	0.0250	4.4000e-004	0.0255	6.4600e-003	4.2000e-004	6.8800e-003	0.0000	45.7017	45.7017	2.0500e-003	0.0000	45.7528

3.4 1.3 Carl Road Utilities Relocation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0170	0.0000	0.0170	9.1700e-003	0.0000	9.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1810	0.0807	2.2000e-004		6.6700e-003	6.6700e-003		6.1400e-003	6.1400e-003	0.0000	19.5154	19.5154	6.3100e-003	0.0000	19.6732
Total	0.0151	0.1810	0.0807	2.2000e-004	0.0170	6.6700e-003	0.0237	9.1700e-003	6.1400e-003	0.0153	0.0000	19.5154	19.5154	6.3100e-003	0.0000	19.6732

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0700e-003	0.2752	0.0600	8.0000e-004	0.0316	8.6000e-004	0.0324	8.2700e-003	8.2000e-004	9.0900e-003	0.0000	77.4871	77.4871	3.5200e-003	0.0000	77.5750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.2500e-003	0.0135	4.0000e-005	4.6600e-003	3.0000e-005	4.6900e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.8605	3.8605	9.0000e-005	0.0000	3.8627
Total	9.8800e-003	0.2764	0.0734	8.4000e-004	0.0362	8.9000e-004	0.0371	9.5100e-003	8.5000e-004	0.0104	0.0000	81.3476	81.3476	3.6100e-003	0.0000	81.4377

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0170	0.0000	0.0170	9.1700e-003	0.0000	9.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1810	0.0807	2.2000e-004		6.6700e-003	6.6700e-003		6.1400e-003	6.1400e-003	0.0000	19.5154	19.5154	6.3100e-003	0.0000	19.6732
Total	0.0151	0.1810	0.0807	2.2000e-004	0.0170	6.6700e-003	0.0237	9.1700e-003	6.1400e-003	0.0153	0.0000	19.5154	19.5154	6.3100e-003	0.0000	19.6732

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0700e-003	0.2752	0.0600	8.0000e-004	0.0316	8.6000e-004	0.0324	8.2700e-003	8.2000e-004	9.0900e-003	0.0000	77.4871	77.4871	3.5200e-003	0.0000	77.5750
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.2500e-003	0.0135	4.0000e-005	4.6600e-003	3.0000e-005	4.6900e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.8605	3.8605	9.0000e-005	0.0000	3.8627
Total	9.8800e-003	0.2764	0.0734	8.4000e-004	0.0362	8.9000e-004	0.0371	9.5100e-003	8.5000e-004	0.0104	0.0000	81.3476	81.3476	3.6100e-003	0.0000	81.4377

3.4 1.3 Carl Road Utilities Relocation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0184	0.0000	0.0184	9.9100e-003	0.0000	9.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Off-Road	0.0148	0.1716	0.0850	2.4000e-004		6.3000e-003	6.3000e-003		5.7900e-003	5.7900e-003	0.0000	21.1002	21.1002	6.8200e-003	0.0000	21.2708
Total	0.0148	0.1716	0.0850	2.4000e-004	0.0184	6.3000e-003	0.0247	9.9100e-003	5.7900e-003	0.0157	0.0000	21.1002	21.1002	6.8200e-003	0.0000	21.2708

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2200e-003	0.2734	0.0638	8.5000e-004	0.0319	8.0000e-004	0.0327	8.4000e-003	7.6000e-004	9.1600e-003	0.0000	82.6827	82.6827	3.7200e-003	0.0000	82.7756
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8300e-003	1.2200e-003	0.0134	4.0000e-005	5.0400e-003	3.0000e-005	5.0800e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.0239	4.0239	9.0000e-005	0.0000	4.0261
Total	0.0101	0.2746	0.0771	8.9000e-004	0.0370	8.3000e-004	0.0378	9.7400e-003	7.9000e-004	0.0105	0.0000	86.7066	86.7066	3.8100e-003	0.0000	86.8016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0184	0.0000	0.0184	9.9100e-003	0.0000	9.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0148	0.1716	0.0850	2.4000e-004		6.3000e-003	6.3000e-003		5.7900e-003	5.7900e-003	0.0000	21.1002	21.1002	6.8200e-003	0.0000	21.2708
Total	0.0148	0.1716	0.0850	2.4000e-004	0.0184	6.3000e-003	0.0247	9.9100e-003	5.7900e-003	0.0157	0.0000	21.1002	21.1002	6.8200e-003	0.0000	21.2708

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.2200e-003	0.2734	0.0638	8.5000e-004	0.0319	8.0000e-004	0.0327	8.4000e-003	7.6000e-004	9.1600e-003	0.0000	82.6827	82.6827	3.7200e-003	0.0000	82.7756
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8300e-003	1.2200e-003	0.0134	4.0000e-005	5.0400e-003	3.0000e-005	5.0800e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.0239	4.0239	9.0000e-005	0.0000	4.0261
Total	0.0101	0.2746	0.0771	8.9000e-004	0.0370	8.3000e-004	0.0378	9.7400e-003	7.9000e-004	0.0105	0.0000	86.7066	86.7066	3.8100e-003	0.0000	86.8016

3.5 1.1 Site Work - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1159	0.0974	1.9000e-004		5.7100e-003	5.7100e-003		5.2500e-003	5.2500e-003	0.0000	16.5955	16.5955	5.3700e-003	0.0000	16.7297
Total	0.0118	0.1159	0.0974	1.9000e-004	2.7000e-004	5.7100e-003	5.9800e-003	3.0000e-005	5.2500e-003	5.2800e-003	0.0000	16.5955	16.5955	5.3700e-003	0.0000	16.7297

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6100e-003	0.0891	0.0194	2.6000e-004	0.0120	2.8000e-004	0.0123	3.1100e-003	2.7000e-004	3.3800e-003	0.0000	25.0760	25.0760	1.1400e-003	0.0000	25.1045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.4000e-004	2.5400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7288	0.7288	2.0000e-005	0.0000	0.7292

Total	2.9500e-003	0.0893	0.0219	2.7000e-004	0.0129	2.9000e-004	0.0132	3.3400e-003	2.8000e-004	3.6200e-003	0.0000	25.8048	25.8048	1.1600e-003	0.0000	25.8336
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0118	0.1159	0.0974	1.9000e-004		5.7100e-003	5.7100e-003		5.2500e-003	5.2500e-003	0.0000	16.5955	16.5955	5.3700e-003	0.0000	16.7297
Total	0.0118	0.1159	0.0974	1.9000e-004	2.7000e-004	5.7100e-003	5.9800e-003	3.0000e-005	5.2500e-003	5.2800e-003	0.0000	16.5955	16.5955	5.3700e-003	0.0000	16.7297

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6100e-003	0.0891	0.0194	2.6000e-004	0.0120	2.8000e-004	0.0123	3.1100e-003	2.7000e-004	3.3800e-003	0.0000	25.0760	25.0760	1.1400e-003	0.0000	25.1045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.4000e-004	2.5400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7288	0.7288	2.0000e-005	0.0000	0.7292
Total	2.9500e-003	0.0893	0.0219	2.7000e-004	0.0129	2.9000e-004	0.0132	3.3400e-003	2.8000e-004	3.6200e-003	0.0000	25.8048	25.8048	1.1600e-003	0.0000	25.8336

3.5 1.1 Site Work - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1488	0.1450	2.8000e-004		7.3400e-003	7.3400e-003		6.7500e-003	6.7500e-003	0.0000	24.9737	24.9737	8.0800e-003	0.0000	25.1756
Total	0.0158	0.1488	0.1450	2.8000e-004	2.7000e-004	7.3400e-003	7.6100e-003	3.0000e-005	6.7500e-003	6.7800e-003	0.0000	24.9737	24.9737	8.0800e-003	0.0000	25.1756

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-003	0.1230	0.0287	3.8000e-004	0.0127	3.6000e-004	0.0131	3.3700e-003	3.4000e-004	3.7200e-003	0.0000	37.2183	37.2183	1.6700e-003	0.0000	37.2602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.2000e-004	3.5100e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.0566	1.0566	2.0000e-005	0.0000	1.0572
Total	4.1800e-003	0.1234	0.0322	3.9000e-004	0.0140	3.7000e-004	0.0144	3.7200e-003	3.5000e-004	4.0800e-003	0.0000	38.2749	38.2749	1.6900e-003	0.0000	38.3173

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1488	0.1450	2.8000e-004		7.3400e-003	7.3400e-003		6.7500e-003	6.7500e-003	0.0000	24.9737	24.9737	8.0800e-003	0.0000	25.1756
Total	0.0158	0.1488	0.1450	2.8000e-004	2.7000e-004	7.3400e-003	7.6100e-003	3.0000e-005	6.7500e-003	6.7800e-003	0.0000	24.9737	24.9737	8.0800e-003	0.0000	25.1756

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.7000e-003	0.1230	0.0287	3.8000e-004	0.0127	3.6000e-004	0.0131	3.3700e-003	3.4000e-004	3.7200e-003	0.0000	37.2183	37.2183	1.6700e-003	0.0000	37.2602
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	3.2000e-004	3.5100e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.0566	1.0566	2.0000e-005	0.0000	1.0572
Total	4.1800e-003	0.1234	0.0322	3.9000e-004	0.0140	3.7000e-004	0.0144	3.7200e-003	3.5000e-004	4.0800e-003	0.0000	38.2749	38.2749	1.6900e-003	0.0000	38.3173

3.6 1.2 Plant Site Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0202	0.2022	0.1544	4.1000e-004		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	36.1471	36.1471	0.0117	0.0000	36.4394
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0202	0.2022	0.1544	4.1000e-004		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	36.1471	36.1471	0.0117	0.0000	36.4394

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3900e-003	0.1498	0.0326	4.4000e-004	0.0116	4.7000e-004	0.0121	3.1300e-003	4.5000e-004	3.5800e-003	0.0000	42.1699	42.1699	1.9100e-003	0.0000	42.2177
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	7.7000e-004	8.2400e-003	3.0000e-005	2.8600e-003	2.0000e-005	2.8700e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.3636	2.3636	5.0000e-005	0.0000	2.3649
Total	5.5000e-003	0.1505	0.0409	4.7000e-004	0.0145	4.9000e-004	0.0150	3.8900e-003	4.7000e-004	4.3600e-003	0.0000	44.5334	44.5334	1.9600e-003	0.0000	44.5826

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0202	0.2022	0.1544	4.1000e-004		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	36.1471	36.1471	0.0117	0.0000	36.4393
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0202	0.2022	0.1544	4.1000e-004		8.9200e-003	8.9200e-003		8.2100e-003	8.2100e-003	0.0000	36.1471	36.1471	0.0117	0.0000	36.4393

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3900e-003	0.1498	0.0326	4.4000e-004	0.0116	4.7000e-004	0.0121	3.1300e-003	4.5000e-004	3.5800e-003	0.0000	42.1699	42.1699	1.9100e-003	0.0000	42.2177
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1100e-003	7.7000e-004	8.2400e-003	3.0000e-005	2.8600e-003	2.0000e-005	2.8700e-003	7.6000e-004	2.0000e-005	7.8000e-004	0.0000	2.3636	2.3636	5.0000e-005	0.0000	2.3649
Total	5.5000e-003	0.1505	0.0409	4.7000e-004	0.0145	4.9000e-004	0.0150	3.8900e-003	4.7000e-004	4.3600e-003	0.0000	44.5334	44.5334	1.9600e-003	0.0000	44.5826

3.6 1.2 Plant Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Worker	3.3000e-004	2.3000e-004	2.4200e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.6959	0.6959	2.0000e-005	0.0000	0.6963
Total	2.4100e-003	0.0711	0.0179	2.2000e-004	5.3300e-003	2.3000e-004	5.5600e-003	1.4600e-003	2.1000e-004	1.6800e-003	0.0000	20.6513	20.6513	9.3000e-004	0.0000	20.6743

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.6100e-003	0.0392	0.0326	8.0000e-005		1.5300e-003	1.5300e-003		1.4100e-003	1.4100e-003	0.0000	7.1461	7.1461	2.3100e-003	0.0000	7.2039
Total	3.6100e-003	0.0392	0.0326	8.0000e-005		1.5300e-003	1.5300e-003		1.4100e-003	1.4100e-003	0.0000	7.1461	7.1461	2.3100e-003	0.0000	7.2039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0800e-003	0.0709	0.0154	2.1000e-004	4.4900e-003	2.2000e-004	4.7100e-003	1.2400e-003	2.1000e-004	1.4500e-003	0.0000	19.9554	19.9554	9.1000e-004	0.0000	19.9780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.3000e-004	2.4200e-003	1.0000e-005	8.4000e-004	1.0000e-005	8.5000e-004	2.2000e-004	0.0000	2.3000e-004	0.0000	0.6959	0.6959	2.0000e-005	0.0000	0.6963
Total	2.4100e-003	0.0711	0.0179	2.2000e-004	5.3300e-003	2.3000e-004	5.5600e-003	1.4600e-003	2.1000e-004	1.6800e-003	0.0000	20.6513	20.6513	9.3000e-004	0.0000	20.6743

3.8 1.5 Primary Sedimentation Tank Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0833	0.8911	0.6223	1.6700e-003		0.0344	0.0344		0.0316	0.0316	0.0000	147.0206	147.0206	0.0476	0.0000	148.2094
Total	0.0833	0.8911	0.6223	1.6700e-003		0.0344	0.0344		0.0316	0.0316	0.0000	147.0206	147.0206	0.0476	0.0000	148.2094

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9800e-003	0.0674	0.0147	2.0000e-004	5.3900e-003	2.1000e-004	5.6000e-003	1.4500e-003	2.0000e-004	1.6500e-003	0.0000	18.9764	18.9764	8.8000e-004	0.0000	18.9980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5500e-003	0.0274	9.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	6.0000e-005	2.5800e-003	0.0000	7.8588	7.8588	1.8000e-004	0.0000	7.8633
Total	5.6700e-003	0.0699	0.0421	2.9000e-004	0.0149	2.7000e-004	0.0152	3.9700e-003	2.6000e-004	4.2300e-003	0.0000	26.8352	26.8352	1.0400e-003	0.0000	26.8612

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0833	0.8911	0.6223	1.6700e-003		0.0344	0.0344		0.0316	0.0316	0.0000	147.0204	147.0204	0.0476	0.0000	148.2092
Total	0.0833	0.8911	0.6223	1.6700e-003		0.0344	0.0344		0.0316	0.0316	0.0000	147.0204	147.0204	0.0476	0.0000	148.2092

Mitigated Construction Off-Site

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

Hauling	1.9800e-003	0.0674	0.0147	2.0000e-004	5.3900e-003	2.1000e-004	5.6000e-003	1.4500e-003	2.0000e-004	1.6500e-003	0.0000	18.9764	18.9764	8.6000e-004	0.0000	18.9980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6900e-003	2.5500e-003	0.0274	9.0000e-005	9.4900e-003	6.0000e-005	9.5500e-003	2.5200e-003	6.0000e-005	2.5800e-003	0.0000	7.8588	7.8588	1.8000e-004	0.0000	7.8633
Total	5.6700e-003	0.0699	0.0421	2.9000e-004	0.0149	2.7000e-004	0.0152	3.9700e-003	2.6000e-004	4.2300e-003	0.0000	26.8352	26.8352	1.0400e-003	0.0000	26.8612

3.8 1.5 Primary Sedimentation Tank Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0258	0.2562	0.2019	5.8000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	51.3402	51.3402	0.0166	0.0000	51.7553
Total	0.0258	0.2562	0.2019	5.8000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	51.3402	51.3402	0.0166	0.0000	51.7553

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.5000e-004	0.0216	5.0400e-003	7.0000e-005	4.6900e-003	6.0000e-005	4.7500e-003	1.2000e-003	6.0000e-005	1.2600e-003	0.0000	6.5374	6.5374	2.9000e-004	0.0000	6.5447
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.0000e-004	8.7900e-003	3.0000e-005	3.3200e-003	2.0000e-005	3.3400e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6447	2.6447	6.0000e-005	0.0000	2.6461
Total	1.8500e-003	0.0224	0.0138	1.0000e-004	8.0100e-003	8.0000e-005	8.0900e-003	2.0800e-003	8.0000e-005	2.1600e-003	0.0000	9.1820	9.1820	3.5000e-004	0.0000	9.1908

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0258	0.2562	0.2019	5.8000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	51.3401	51.3401	0.0166	0.0000	51.7552
Total	0.0258	0.2562	0.2019	5.8000e-004		9.9600e-003	9.9600e-003		9.1600e-003	9.1600e-003	0.0000	51.3401	51.3401	0.0166	0.0000	51.7552

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.5000e-004	0.0216	5.0400e-003	7.0000e-005	4.6900e-003	6.0000e-005	4.7500e-003	1.2000e-003	6.0000e-005	1.2600e-003	0.0000	6.5374	6.5374	2.9000e-004	0.0000	6.5447
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-003	8.0000e-004	8.7900e-003	3.0000e-005	3.3200e-003	2.0000e-005	3.3400e-003	8.8000e-004	2.0000e-005	9.0000e-004	0.0000	2.6447	2.6447	6.0000e-005	0.0000	2.6461
Total	1.8500e-003	0.0224	0.0138	1.0000e-004	8.0100e-003	8.0000e-005	8.0900e-003	2.0800e-003	8.0000e-005	2.1600e-003	0.0000	9.1820	9.1820	3.5000e-004	0.0000	9.1908

3.9 2.3 Cured-In-Place Pipe Work - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0541	0.4616	0.5103	9.4000e-004		0.0248	0.0248		0.0246	0.0246	0.0000	81.1703	81.1703	7.1000e-003	0.0000	81.3479
Total	0.0541	0.4616	0.5103	9.4000e-004		0.0248	0.0248		0.0246	0.0246	0.0000	81.1703	81.1703	7.1000e-003	0.0000	81.3479

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0112	2.4500e-003	3.0000e-005	4.7700e-003	4.0000e-005	4.8100e-003	1.1900e-003	3.0000e-005	1.2300e-003	0.0000	3.1627	3.1627	1.4000e-004	0.0000	3.1663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.6000e-004	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2758	0.2758	1.0000e-005	0.0000	0.2759
Total	4.6000e-004	0.0113	3.4100e-003	3.0000e-005	5.1000e-003	4.0000e-005	5.1500e-003	1.2800e-003	3.0000e-005	1.3200e-003	0.0000	3.4385	3.4385	1.5000e-004	0.0000	3.4422

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0541	0.4616	0.5103	9.4000e-004		0.0248	0.0248		0.0246	0.0246	0.0000	81.1702	81.1702	7.1000e-003	0.0000	81.3478
Total	0.0541	0.4616	0.5103	9.4000e-004		0.0248	0.0248		0.0246	0.0246	0.0000	81.1702	81.1702	7.1000e-003	0.0000	81.3478

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-004	0.0112	2.4500e-003	3.0000e-005	4.7700e-003	4.0000e-005	4.8100e-003	1.1900e-003	3.0000e-005	1.2300e-003	0.0000	3.1627	3.1627	1.4000e-004	0.0000	3.1663
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.6000e-004	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2758	0.2758	1.0000e-005	0.0000	0.2759
Total	4.6000e-004	0.0113	3.4100e-003	3.0000e-005	5.1000e-003	4.0000e-005	5.1500e-003	1.2800e-003	3.0000e-005	1.3200e-003	0.0000	3.4385	3.4385	1.5000e-004	0.0000	3.4422

3.9.2.3 Cured-In-Place Pipe Work - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3788	3.1966	3.8617	7.1800e-003		0.1639	0.1639		0.1628	0.1628	0.0000	618.3603	618.3603	0.0522	0.0000	619.6651
Total	0.3788	3.1966	3.8617	7.1800e-003		0.1639	0.1639		0.1628	0.1628	0.0000	618.3603	618.3603	0.0522	0.0000	619.6651

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3600e-003	0.0786	0.0183	2.5000e-004	5.9600e-003	2.3000e-004	6.1900e-003	1.6200e-003	2.2000e-004	1.8400e-003	0.0000	23.7722	23.7722	1.0700e-003	0.0000	23.7989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	6.1000e-004	6.7300e-003	2.0000e-005	2.5400e-003	2.0000e-005	2.5500e-003	6.7000e-004	1.0000e-005	6.9000e-004	0.0000	2.0246	2.0246	4.0000e-005	0.0000	2.0257
Total	3.2800e-003	0.0792	0.0251	2.7000e-004	8.5000e-003	2.5000e-004	8.7400e-003	2.2900e-003	2.3000e-004	2.5300e-003	0.0000	25.7968	25.7968	1.1100e-003	0.0000	25.8246

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3788	3.1966	3.8617	7.1800e-003		0.1639	0.1639		0.1628	0.1628	0.0000	618.3596	618.3596	0.0522	0.0000	619.6644

Total	0.3788	3.1966	3.8617	7.1800e-003		0.1639	0.1639		0.1628	0.1628	0.0000	618.3596	618.3596	0.0522	0.0000	619.6644
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3600e-003	0.0786	0.0183	2.5000e-004	5.9600e-003	2.3000e-004	6.1900e-003	1.6200e-003	2.2000e-004	1.8400e-003	0.0000	23.7722	23.7722	1.0700e-003	0.0000	23.7989
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.2000e-004	6.1000e-004	6.7300e-003	2.0000e-005	2.5400e-003	2.0000e-005	2.5500e-003	6.7000e-004	1.0000e-005	6.9000e-004	0.0000	2.0246	2.0246	4.0000e-005	0.0000	2.0257
Total	3.2800e-003	0.0792	0.0251	2.7000e-004	8.5000e-003	2.5000e-004	8.7400e-003	2.2900e-003	2.3000e-004	2.5300e-003	0.0000	25.7968	25.7968	1.1100e-003	0.0000	25.8246

3.10 2.1 Sitework - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0181	0.0000	0.0181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2100e-003	0.0678	0.0558	2.0000e-004		2.6400e-003	2.6400e-003		2.4200e-003	2.4200e-003	0.0000	17.5218	17.5218	5.6700e-003	0.0000	17.6634
Total	8.2100e-003	0.0678	0.0558	2.0000e-004	0.0494	2.6400e-003	0.0520	0.0181	2.4200e-003	0.0206	0.0000	17.5218	17.5218	5.6700e-003	0.0000	17.6634

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0373	8.7100e-003	1.2000e-004	2.5800e-003	1.1000e-004	2.6900e-003	7.1000e-004	1.0000e-004	8.1000e-004	0.0000	11.2918	11.2918	5.1000e-004	0.0000	11.3045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.4000e-004	4.8600e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4615	1.4615	3.0000e-005	0.0000	1.4623
Total	1.7800e-003	0.0378	0.0136	1.4000e-004	4.4100e-003	1.2000e-004	4.5300e-003	1.2000e-003	1.1000e-004	1.3100e-003	0.0000	12.7533	12.7533	5.4000e-004	0.0000	12.7668

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0181	0.0000	0.0181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.2100e-003	0.0678	0.0558	2.0000e-004		2.6400e-003	2.6400e-003		2.4200e-003	2.4200e-003	0.0000	17.5217	17.5217	5.6700e-003	0.0000	17.6634
Total	8.2100e-003	0.0678	0.0558	2.0000e-004	0.0494	2.6400e-003	0.0520	0.0181	2.4200e-003	0.0206	0.0000	17.5217	17.5217	5.6700e-003	0.0000	17.6634

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1200e-003	0.0373	8.7100e-003	1.2000e-004	2.5800e-003	1.1000e-004	2.6900e-003	7.1000e-004	1.0000e-004	8.1000e-004	0.0000	11.2918	11.2918	5.1000e-004	0.0000	11.3045
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.4000e-004	4.8600e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4615	1.4615	3.0000e-005	0.0000	1.4623
Total	1.7800e-003	0.0378	0.0136	1.4000e-004	4.4100e-003	1.2000e-004	4.5300e-003	1.2000e-003	1.1000e-004	1.3100e-003	0.0000	12.7533	12.7533	5.4000e-004	0.0000	12.7668

3.11 2.2 Site Utilities - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0535	0.0000	0.0535	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	0.0102	7.9900e-003	4.0000e-005		3.2000e-004	3.2000e-004		2.9000e-004	2.9000e-004	0.0000	3.1362	3.1362	1.0100e-003	0.0000	3.1616
Total	1.0900e-003	0.0102	7.9900e-003	4.0000e-005	0.0535	3.2000e-004	0.0538	0.0212	2.9000e-004	0.0215	0.0000	3.1362	3.1362	1.0100e-003	0.0000	3.1616

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3700e-003	0.0457	0.0107	1.4000e-004	3.1500e-003	1.3000e-004	3.2900e-003	8.7000e-004	1.3000e-004	9.9000e-004	0.0000	13.8176	13.8176	6.2000e-004	0.0000	13.8331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0700e-003	7.1000e-004	7.8200e-003	3.0000e-005	2.9500e-003	2.0000e-005	2.9700e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.3536	2.3536	5.0000e-005	0.0000	2.3549
Total	2.4400e-003	0.0464	0.0185	1.7000e-004	6.1000e-003	1.5000e-004	6.2600e-003	1.6500e-003	1.5000e-004	1.7900e-003	0.0000	16.1712	16.1712	6.7000e-004	0.0000	16.1880

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0535	0.0000	0.0535	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	0.0102	7.9900e-003	4.0000e-005		3.2000e-004	3.2000e-004		2.9000e-004	2.9000e-004	0.0000	3.1362	3.1362	1.0100e-003	0.0000	3.1616
Total	1.0900e-003	0.0102	7.9900e-003	4.0000e-005	0.0535	3.2000e-004	0.0538	0.0212	2.9000e-004	0.0215	0.0000	3.1362	3.1362	1.0100e-003	0.0000	3.1616

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.3700e-003	0.0457	0.0107	1.4000e-004	3.1500e-003	1.3000e-004	3.2900e-003	8.7000e-004	1.3000e-004	9.9000e-004	0.0000	13.8176	13.8176	6.2000e-004	0.0000	13.8331
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0700e-003	7.1000e-004	7.8200e-003	3.0000e-005	2.9500e-003	2.0000e-005	2.9700e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.3536	2.3536	5.0000e-005	0.0000	2.3549
Total	2.4400e-003	0.0464	0.0185	1.7000e-004	6.1000e-003	1.5000e-004	6.2600e-003	1.6500e-003	1.5000e-004	1.7900e-003	0.0000	16.1712	16.1712	6.7000e-004	0.0000	16.1880

3.12 2.12 Chlorine Contact Tank Channels - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0614	0.5186	0.5531	1.2100e-003		0.0249	0.0249		0.0241	0.0241	0.0000	104.9102	104.9102	0.0184	0.0000	105.3697
Total	0.0614	0.5186	0.5531	1.2100e-003		0.0249	0.0249		0.0241	0.0241	0.0000	104.9102	104.9102	0.0184	0.0000	105.3697

Unmitigated Construction Off-Site

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

Hauling	7.5000e-004	0.0248	5.7900e-003	8.0000e-005	1.7100e-003	7.0000e-005	1.7800e-003	4.7000e-004	7.0000e-005	5.4000e-004	0.0000	7.5031	7.5031	3.4000e-004	0.0000	7.5115
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9500e-003	3.9600e-003	0.0435	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3700e-003	9.0000e-005	4.4600e-003	0.0000	13.0999	13.0999	2.8000e-004	0.0000	13.1069
Total	6.7000e-003	0.0288	0.0493	2.2000e-004	0.0181	1.7000e-004	0.0183	4.8400e-003	1.6000e-004	5.0000e-003	0.0000	20.6030	20.6030	6.2000e-004	0.0000	20.6184

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0614	0.5186	0.5531	1.2100e-003		0.0249	0.0249		0.0241	0.0241	0.0000	104.9101	104.9101	0.0184	0.0000	105.3696
Total	0.0614	0.5186	0.5531	1.2100e-003		0.0249	0.0249		0.0241	0.0241	0.0000	104.9101	104.9101	0.0184	0.0000	105.3696

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.5000e-004	0.0248	5.7900e-003	8.0000e-005	1.7100e-003	7.0000e-005	1.7800e-003	4.7000e-004	7.0000e-005	5.4000e-004	0.0000	7.5031	7.5031	3.4000e-004	0.0000	7.5115
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9500e-003	3.9600e-003	0.0435	1.4000e-004	0.0164	1.0000e-004	0.0165	4.3700e-003	9.0000e-005	4.4600e-003	0.0000	13.0999	13.0999	2.8000e-004	0.0000	13.1069
Total	6.7000e-003	0.0288	0.0493	2.2000e-004	0.0181	1.7000e-004	0.0183	4.8400e-003	1.6000e-004	5.0000e-003	0.0000	20.6030	20.6030	6.2000e-004	0.0000	20.6184

3.13 1.9 Primary Control Building and Maintenance Building

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0420	0.4338	0.3392	9.3000e-004		0.0170	0.0170		0.0157	0.0157	0.0000	81.9591	81.9591	0.0265	0.0000	82.6218
Total	0.0420	0.4338	0.3392	9.3000e-004		0.0170	0.0170		0.0157	0.0157	0.0000	81.9591	81.9591	0.0265	0.0000	82.6218

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3000e-003	0.1429	0.0333	4.5000e-004	9.8700e-003	4.2000e-004	0.0103	2.7100e-003	4.0000e-004	3.1100e-003	0.0000	43.2357	43.2357	1.9400e-003	0.0000	43.2843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.2100e-003	0.0133	4.0000e-005	5.0000e-003	3.0000e-005	5.0300e-003	1.3300e-003	3.0000e-005	1.3600e-003	0.0000	3.9891	3.9891	8.0000e-005	0.0000	3.9912
Total	6.1100e-003	0.1442	0.0466	4.9000e-004	0.0149	4.5000e-004	0.0153	4.0400e-003	4.3000e-004	4.4700e-003	0.0000	47.2248	47.2248	2.0200e-003	0.0000	47.2755

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0420	0.4338	0.3392	9.3000e-004		0.0170	0.0170		0.0157	0.0157	0.0000	81.9590	81.9590	0.0265	0.0000	82.6217
Total	0.0420	0.4338	0.3392	9.3000e-004		0.0170	0.0170		0.0157	0.0157	0.0000	81.9590	81.9590	0.0265	0.0000	82.6217

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.3000e-003	0.1429	0.0333	4.5000e-004	9.8700e-003	4.2000e-004	0.0103	2.7100e-003	4.0000e-004	3.1100e-003	0.0000	43.2357	43.2357	1.9400e-003	0.0000	43.2843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8100e-003	1.2100e-003	0.0133	4.0000e-005	5.0000e-003	3.0000e-005	5.0300e-003	1.3300e-003	3.0000e-005	1.3600e-003	0.0000	3.9891	3.9891	8.0000e-005	0.0000	3.9912
Total	6.1100e-003	0.1442	0.0466	4.9000e-004	0.0149	4.5000e-004	0.0153	4.0400e-003	4.3000e-004	4.4700e-003	0.0000	47.2248	47.2248	2.0200e-003	0.0000	47.2755

3.14 1.10 South Segment Perimeter Wall Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0141	0.1190	0.1012	3.2000e-004		4.9400e-003	4.9400e-003		4.5500e-003	4.5500e-003	0.0000	28.4071	28.4071	9.1900e-003	0.0000	28.6368
Total	0.0141	0.1190	0.1012	3.2000e-004		4.9400e-003	4.9400e-003		4.5500e-003	4.5500e-003	0.0000	28.4071	28.4071	9.1900e-003	0.0000	28.6368

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9900e-003	0.1326	0.0309	4.1000e-004	9.1600e-003	3.9000e-004	9.5400e-003	2.5200e-003	3.7000e-004	2.8900e-003	0.0000	40.1156	40.1156	1.8000e-003	0.0000	40.1607
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	7.3800e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.2208	2.2208	5.0000e-005	0.0000	2.2219
Total	5.0000e-003	0.1333	0.0383	4.3000e-004	0.0119	4.1000e-004	0.0123	3.2600e-003	3.9000e-004	3.6500e-003	0.0000	42.3363	42.3363	1.8500e-003	0.0000	42.3826

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0141	0.1190	0.1012	3.2000e-004		4.9400e-003	4.9400e-003		4.5500e-003	4.5500e-003	0.0000	28.4071	28.4071	9.1900e-003	0.0000	28.6368
Total	0.0141	0.1190	0.1012	3.2000e-004		4.9400e-003	4.9400e-003		4.5500e-003	4.5500e-003	0.0000	28.4071	28.4071	9.1900e-003	0.0000	28.6368

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9900e-003	0.1326	0.0309	4.1000e-004	9.1600e-003	3.9000e-004	9.5400e-003	2.5200e-003	3.7000e-004	2.8900e-003	0.0000	40.1156	40.1156	1.8000e-003	0.0000	40.1607
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0100e-003	6.7000e-004	7.3800e-003	2.0000e-005	2.7800e-003	2.0000e-005	2.8000e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.2208	2.2208	5.0000e-005	0.0000	2.2219
Total	5.0000e-003	0.1333	0.0383	4.3000e-004	0.0119	4.1000e-004	0.0123	3.2600e-003	3.9000e-004	3.6500e-003	0.0000	42.3363	42.3363	1.8500e-003	0.0000	42.3826

3.15 1.8 Admin Building Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.1579	0.1226	3.6000e-004		6.0000e-003	6.0000e-003		5.5200e-003	5.5200e-003	0.0000	31.6169	31.6169	0.0102	0.0000	31.8725

Total	0.0152	0.1579	0.1226	3.6000e-004		6.0000e-003	6.0000e-003		5.5200e-003	5.5200e-003	0.0000	31.6169	31.6169	0.0102	0.0000	31.8725
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0766	0.0179	2.4000e-004	5.2900e-003	2.2000e-004	5.5100e-003	1.4500e-003	2.1000e-004	1.6700e-003	0.0000	23.1779	23.1779	1.0400e-003	0.0000	23.2039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2800e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9870	0.9870	2.0000e-005	0.0000	0.9875
Total	2.7600e-003	0.0769	0.0212	2.5000e-004	6.5300e-003	2.3000e-004	6.7500e-003	1.7800e-003	2.2000e-004	2.0100e-003	0.0000	24.1649	24.1649	1.0600e-003	0.0000	24.1915

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.1579	0.1226	3.6000e-004		6.0000e-003	6.0000e-003		5.5200e-003	5.5200e-003	0.0000	31.6168	31.6168	0.0102	0.0000	31.8725
Total	0.0152	0.1579	0.1226	3.6000e-004		6.0000e-003	6.0000e-003		5.5200e-003	5.5200e-003	0.0000	31.6168	31.6168	0.0102	0.0000	31.8725

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3100e-003	0.0766	0.0179	2.4000e-004	5.2900e-003	2.2000e-004	5.5100e-003	1.4500e-003	2.1000e-004	1.6700e-003	0.0000	23.1779	23.1779	1.0400e-003	0.0000	23.2039
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.2800e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9870	0.9870	2.0000e-005	0.0000	0.9875
Total	2.7600e-003	0.0769	0.0212	2.5000e-004	6.5300e-003	2.3000e-004	6.7500e-003	1.7800e-003	2.2000e-004	2.0100e-003	0.0000	24.1649	24.1649	1.0600e-003	0.0000	24.1915

3.16 2.10 Dual Media Filters - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.6700e-003	0.0650	0.0523	1.6000e-004		2.7100e-003	2.7100e-003		2.5000e-003	2.5000e-003	0.0000	14.2052	14.2052	4.5900e-003	0.0000	14.3201
Total	7.6700e-003	0.0650	0.0523	1.6000e-004		2.7100e-003	2.7100e-003		2.5000e-003	2.5000e-003	0.0000	14.2052	14.2052	4.5900e-003	0.0000	14.3201

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-004	0.0147	3.4400e-003	5.0000e-005	1.0200e-003	4.0000e-005	1.0600e-003	2.8000e-004	4.0000e-005	3.2000e-004	0.0000	4.4573	4.4573	2.0000e-004	0.0000	4.4623
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6100e-003	0.0177	6.0000e-005	6.6600e-003	4.0000e-005	6.7000e-003	1.7700e-003	4.0000e-005	1.8100e-003	0.0000	5.3146	5.3146	1.1000e-004	0.0000	5.3174
Total	2.8600e-003	0.0164	0.0211	1.1000e-004	7.6800e-003	8.0000e-005	7.7600e-003	2.0500e-003	8.0000e-005	2.1300e-003	0.0000	9.7719	9.7719	3.1000e-004	0.0000	9.7797

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr									MT/yr						
Off-Road	7.6700e-003	0.0650	0.0523	1.6000e-004		2.7100e-003	2.7100e-003		2.5000e-003	2.5000e-003	0.0000	14.2052	14.2052	4.5900e-003	0.0000	14.3201
Total	7.6700e-003	0.0650	0.0523	1.6000e-004		2.7100e-003	2.7100e-003		2.5000e-003	2.5000e-003	0.0000	14.2052	14.2052	4.5900e-003	0.0000	14.3201

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr								MT/yr							
Hauling	4.4000e-004	0.0147	3.4400e-003	5.0000e-005	1.0200e-003	4.0000e-005	1.0600e-003	2.8000e-004	4.0000e-005	3.2000e-004	0.0000	4.4573	4.4573	2.0000e-004	0.0000	4.4623
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4200e-003	1.6100e-003	0.0177	6.0000e-005	6.6600e-003	4.0000e-005	6.7000e-003	1.7700e-003	4.0000e-005	1.8100e-003	0.0000	5.3146	5.3146	1.1000e-004	0.0000	5.3174
Total	2.8600e-003	0.0164	0.0211	1.1000e-004	7.6800e-003	8.0000e-005	7.7600e-003	2.0500e-003	8.0000e-005	2.1300e-003	0.0000	9.7719	9.7719	3.1000e-004	0.0000	9.7797

3.17 2.6 Fixed Growth Reactors 1 and 3 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr								MT/yr							
Off-Road	0.0212	0.1798	0.1448	4.5000e-004		7.5000e-003	7.5000e-003		6.9000e-003	6.9000e-003	0.0000	39.3011	39.3011	0.0127	0.0000	39.6189
Total	0.0212	0.1798	0.1448	4.5000e-004		7.5000e-003	7.5000e-003		6.9000e-003	6.9000e-003	0.0000	39.3011	39.3011	0.0127	0.0000	39.6189

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr								MT/yr							
Hauling	1.2300e-003	0.0408	9.5100e-003	1.3000e-004	2.8100e-003	1.2000e-004	2.9300e-003	7.7000e-004	1.1000e-004	8.9000e-004	0.0000	12.3318	12.3318	5.5000e-004	0.0000	12.3457
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4600e-003	2.3000e-003	0.0263	8.0000e-005	9.5500e-003	6.0000e-005	9.6000e-003	2.5400e-003	5.0000e-005	2.5900e-003	0.0000	7.6145	7.6145	1.6000e-004	0.0000	7.6185
Total	4.6900e-003	0.0431	0.0348	2.1000e-004	0.0124	1.8000e-004	0.0125	3.3100e-003	1.6000e-004	3.4800e-003	0.0000	19.9463	19.9463	7.1000e-004	0.0000	19.9642

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr								MT/yr							
Off-Road	0.0212	0.1798	0.1448	4.5000e-004		7.5000e-003	7.5000e-003		6.9000e-003	6.9000e-003	0.0000	39.3011	39.3011	0.0127	0.0000	39.6188
Total	0.0212	0.1798	0.1448	4.5000e-004		7.5000e-003	7.5000e-003		6.9000e-003	6.9000e-003	0.0000	39.3011	39.3011	0.0127	0.0000	39.6188

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr								MT/yr							
Hauling	1.2300e-003	0.0408	9.5100e-003	1.3000e-004	2.8100e-003	1.2000e-004	2.9300e-003	7.7000e-004	1.1000e-004	8.9000e-004	0.0000	12.3318	12.3318	5.5000e-004	0.0000	12.3457
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4600e-003	2.3000e-003	0.0263	8.0000e-005	9.5500e-003	6.0000e-005	9.6000e-003	2.5400e-003	5.0000e-005	2.5900e-003	0.0000	7.6145	7.6145	1.6000e-004	0.0000	7.6185
Total	4.6900e-003	0.0431	0.0348	2.1000e-004	0.0124	1.8000e-004	0.0125	3.3100e-003	1.6000e-004	3.4800e-003	0.0000	19.9463	19.9463	7.1000e-004	0.0000	19.9642

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										M1/yr					
Off-Road	0.0175	0.1483	0.1365	3.6000e-004		6.6000e-003	6.6000e-003		6.2300e-003	6.2300e-003	0.0000	31.3553	31.3553	8.1800e-003	0.0000	31.5597
Total	0.0175	0.1483	0.1365	3.6000e-004		6.6000e-003	6.6000e-003		6.2300e-003	6.2300e-003	0.0000	31.3553	31.3553	8.1800e-003	0.0000	31.5597

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0125	2.9200e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.4000e-004	3.0000e-005	2.7000e-004	0.0000	3.7887	3.7887	1.7000e-004	0.0000	3.7930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9400e-003	5.9500e-003	0.0654	2.2000e-004	0.0247	1.5000e-004	0.0248	6.5600e-003	1.4000e-004	6.7000e-003	0.0000	19.6831	19.6831	4.2000e-004	0.0000	19.6935
Total	9.3200e-003	0.0185	0.0683	2.6000e-004	0.0255	1.9000e-004	0.0257	6.8000e-003	1.7000e-004	6.9700e-003	0.0000	23.4718	23.4718	5.9000e-004	0.0000	23.4865

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										Mt/yr					
Off-Road	0.0175	0.1483	0.1365	3.6000e-004		6.6000e-003	6.6000e-003		6.2300e-003	6.2300e-003	0.0000	31.3552	31.3552	8.1800e-003	0.0000	31.5597
Total	0.0175	0.1483	0.1365	3.6000e-004		6.6000e-003	6.6000e-003		6.2300e-003	6.2300e-003	0.0000	31.3552	31.3552	8.1800e-003	0.0000	31.5597

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0125	2.9200e-003	4.0000e-005	8.6000e-004	4.0000e-005	9.0000e-004	2.4000e-004	3.0000e-005	2.7000e-004	0.0000	3.7887	3.7887	1.7000e-004	0.0000	3.7930
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9400e-003	5.9500e-003	0.0654	2.2000e-004	0.0247	1.5000e-004	0.0248	6.5600e-003	1.4000e-004	6.7000e-003	0.0000	19.6831	19.6831	4.2000e-004	0.0000	19.6935
Total	9.3200e-003	0.0185	0.0683	2.6000e-004	0.0255	1.9000e-004	0.0257	6.8000e-003	1.7000e-004	6.9700e-003	0.0000	23.4718	23.4718	5.9000e-004	0.0000	23.4865

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3700e-003	0.0865	0.0676	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	16.3708	16.3708	5.2900e-003	0.0000	16.5032
Total	8.3700e-003	0.0865	0.0676	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	16.3708	16.3708	5.2900e-003	0.0000	16.5032

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Worker	3.4000e-004	2.3000e-004	2.4800e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7466	0.7466	2.0000e-005	0.0000	0.7470
Total	2.0800e-003	0.0582	0.0160	1.9000e-004	4.9400e-003	1.8000e-004	5.1100e-003	1.3500e-003	1.7000e-004	1.5100e-003	0.0000	18.2786	18.2786	8.1000e-004	0.0000	18.2987

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.3700e-003	0.0865	0.0676	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	16.3708	16.3708	5.2900e-003	0.0000	16.5031
Total	8.3700e-003	0.0865	0.0676	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	16.3708	16.3708	5.2900e-003	0.0000	16.5031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7400e-003	0.0580	0.0135	1.8000e-004	4.0000e-003	1.7000e-004	4.1700e-003	1.1000e-003	1.6000e-004	1.2600e-003	0.0000	17.5320	17.5320	7.9000e-004	0.0000	17.5517
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.3000e-004	2.4800e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.4000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7466	0.7466	2.0000e-005	0.0000	0.7470
Total	2.0800e-003	0.0582	0.0160	1.9000e-004	4.9400e-003	1.8000e-004	5.1100e-003	1.3500e-003	1.7000e-004	1.5100e-003	0.0000	18.2786	18.2786	8.1000e-004	0.0000	18.2987

3.20 2.11 Tertiary/DMF Structure and Equipment - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0671	0.0541	1.7000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	14.6787	14.6787	4.7500e-003	0.0000	14.7974
Total	7.9300e-003	0.0671	0.0541	1.7000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	14.6787	14.6787	4.7500e-003	0.0000	14.7974

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.6000e-004	0.0152	3.5500e-003	5.0000e-005	1.0500e-003	4.0000e-005	1.1000e-003	2.9000e-004	4.0000e-005	3.3000e-004	0.0000	4.6059	4.6059	2.1000e-004	0.0000	4.6110
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.5000e-004	7.1700e-003	2.0000e-005	2.7000e-003	2.0000e-005	2.7200e-003	7.2000e-004	2.0000e-005	7.3000e-004	0.0000	2.1575	2.1575	5.0000e-005	0.0000	2.1586
Total	1.4400e-003	0.0159	0.0107	7.0000e-005	3.7500e-003	6.0000e-005	3.8200e-003	1.0100e-003	6.0000e-005	1.0600e-003	0.0000	6.7634	6.7634	2.6000e-004	0.0000	6.7697

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0671	0.0541	1.7000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	14.6787	14.6787	4.7500e-003	0.0000	14.7974
Total	7.9300e-003	0.0671	0.0541	1.7000e-004		2.8000e-003	2.8000e-003		2.5800e-003	2.5800e-003	0.0000	14.6787	14.6787	4.7500e-003	0.0000	14.7974

Mitigated Construction Off-Site

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

Hauling	4.6000e-004	0.0152	3.5500e-003	5.0000e-005	1.0500e-003	4.0000e-005	1.1000e-003	2.9000e-004	4.0000e-005	3.3000e-004	0.0000	4.6059	4.6059	2.1000e-004	0.0000	4.6110
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	6.5000e-004	7.1700e-003	2.0000e-005	2.7000e-003	2.0000e-005	2.7200e-003	7.2000e-004	2.0000e-005	7.3000e-004	0.0000	2.1575	2.1575	5.0000e-005	0.0000	2.1586
Total	1.4400e-003	0.0159	0.0107	7.0000e-005	3.7500e-003	6.0000e-005	3.8200e-003	1.0100e-003	6.0000e-005	1.0600e-003	0.0000	6.7634	6.7634	2.6000e-004	0.0000	6.7697

3.21 2.7 Air Flotation Tanks 2 and 3 - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4600e-003	0.0801	0.0645	2.0000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	17.5198	17.5198	5.6700e-003	0.0000	17.6614
Total	9.4600e-003	0.0801	0.0645	2.0000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	17.5198	17.5198	5.6700e-003	0.0000	17.6614

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.0900e-003	2.1200e-003	3.0000e-005	6.3000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7487	2.7487	1.2000e-004	0.0000	2.7518
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6700e-003	2.4400e-003	0.0268	9.0000e-005	0.0101	6.0000e-005	0.0102	2.6900e-003	6.0000e-005	2.7500e-003	0.0000	8.0763	8.0763	1.7000e-004	0.0000	8.0806
Total	3.9400e-003	0.0115	0.0290	1.2000e-004	0.0108	9.0000e-005	0.0108	2.8600e-003	9.0000e-005	2.9500e-003	0.0000	10.8250	10.8250	2.9000e-004	0.0000	10.8324

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4600e-003	0.0801	0.0645	2.0000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	17.5198	17.5198	5.6700e-003	0.0000	17.6614
Total	9.4600e-003	0.0801	0.0645	2.0000e-004		3.3500e-003	3.3500e-003		3.0800e-003	3.0800e-003	0.0000	17.5198	17.5198	5.6700e-003	0.0000	17.6614

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	9.0900e-003	2.1200e-003	3.0000e-005	6.3000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7487	2.7487	1.2000e-004	0.0000	2.7518
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6700e-003	2.4400e-003	0.0268	9.0000e-005	0.0101	6.0000e-005	0.0102	2.6900e-003	6.0000e-005	2.7500e-003	0.0000	8.0763	8.0763	1.7000e-004	0.0000	8.0806
Total	3.9400e-003	0.0115	0.0290	1.2000e-004	0.0108	9.0000e-005	0.0108	2.8600e-003	9.0000e-005	2.9500e-003	0.0000	10.8250	10.8250	2.9000e-004	0.0000	10.8324

3.22 2.5 ACS Integration, Substation and MCC Work - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1441	0.1165	4.1000e-004		5.9300e-003	5.9300e-003		5.4500e-003	5.4500e-003	0.0000	36.4282	36.4282	0.0118	0.0000	36.7227
Total	0.0188	0.1441	0.1165	4.1000e-004		5.9300e-003	5.9300e-003		5.4500e-003	5.4500e-003	0.0000	36.4282	36.4282	0.0118	0.0000	36.7227

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.1000e-004	0.0236	5.5000e-003	7.0000e-005	3.5100e-003	7.0000e-005	3.5800e-003	9.1000e-004	7.0000e-005	9.7000e-004	0.0000	7.1317	7.1317	3.2000e-004	0.0000	7.1397
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-003	2.5300e-003	0.0278	9.0000e-005	0.0105	6.0000e-005	0.0105	2.7800e-003	6.0000e-005	2.8400e-003	0.0000	8.3516	8.3516	1.8000e-004	0.0000	8.3560
Total	4.5100e-003	0.0261	0.0333	1.6000e-004	0.0140	1.3000e-004	0.0141	3.6900e-003	1.3000e-004	3.8100e-003	0.0000	15.4832	15.4832	5.0000e-004	0.0000	15.4957

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1441	0.1165	4.1000e-004		5.9300e-003	5.9300e-003		5.4500e-003	5.4500e-003	0.0000	36.4281	36.4281	0.0118	0.0000	36.7227
Total	0.0188	0.1441	0.1165	4.1000e-004		5.9300e-003	5.9300e-003		5.4500e-003	5.4500e-003	0.0000	36.4281	36.4281	0.0118	0.0000	36.7227

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.1000e-004	0.0236	5.5000e-003	7.0000e-005	3.5100e-003	7.0000e-005	3.5800e-003	9.1000e-004	7.0000e-005	9.7000e-004	0.0000	7.1317	7.1317	3.2000e-004	0.0000	7.1397
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-003	2.5300e-003	0.0278	9.0000e-005	0.0105	6.0000e-005	0.0105	2.7800e-003	6.0000e-005	2.8400e-003	0.0000	8.3516	8.3516	1.8000e-004	0.0000	8.3560
Total	4.5100e-003	0.0261	0.0333	1.6000e-004	0.0140	1.3000e-004	0.0141	3.6900e-003	1.3000e-004	3.8100e-003	0.0000	15.4832	15.4832	5.0000e-004	0.0000	15.4957

3.22 2.5 ACS Integration, Substation and MCC Work - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0279	0.1997	0.1787	6.4000e-004		8.3800e-003	8.3800e-003		7.7100e-003	7.7100e-003	0.0000	56.1414	56.1414	0.0182	0.0000	56.5953
Total	0.0279	0.1997	0.1787	6.4000e-004		8.3800e-003	8.3800e-003		7.7100e-003	7.7100e-003	0.0000	56.1414	56.1414	0.0182	0.0000	56.5953

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.5000e-004	0.0239	7.7100e-003	1.1000e-004	3.7300e-003	4.0000e-005	3.7700e-003	9.9000e-004	4.0000e-005	1.0300e-003	0.0000	10.5711	10.5711	4.4000e-004	0.0000	10.5822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4800e-003	3.5000e-003	0.0394	1.4000e-004	0.0161	1.0000e-004	0.0162	4.2900e-003	9.0000e-005	4.3800e-003	0.0000	12.3862	12.3862	2.4000e-004	0.0000	12.3924
Total	6.2300e-003	0.0274	0.0471	2.5000e-004	0.0199	1.4000e-004	0.0200	5.2800e-003	1.3000e-004	5.4100e-003	0.0000	22.9573	22.9573	6.8000e-004	0.0000	22.9745

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0279	0.1997	0.1787	6.4000e-004		8.3800e-003	8.3800e-003		7.7100e-003	7.7100e-003	0.0000	56.1413	56.1413	0.0182	0.0000	56.5953

Total	0.0279	0.1997	0.1787	6.4000e-004		8.3800e-003	8.3800e-003		7.7100e-003	7.7100e-003	0.0000	56.1413	56.1413	0.0182	0.0000	56.5953
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.5000e-004	0.0239	7.7100e-003	1.1000e-004	3.7300e-003	4.0000e-005	3.7700e-003	9.9000e-004	4.0000e-005	1.0300e-003	0.0000	10.5711	10.5711	4.4000e-004	0.0000	10.5822
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4800e-003	3.5000e-003	0.0394	1.4000e-004	0.0161	1.0000e-004	0.0162	4.2900e-003	9.0000e-005	4.3800e-003	0.0000	12.3862	12.3862	2.4000e-004	0.0000	12.3924
Total	6.2300e-003	0.0274	0.0471	2.5000e-004	0.0199	1.4000e-004	0.0200	5.2800e-003	1.3000e-004	5.4100e-003	0.0000	22.9573	22.9573	6.8000e-004	0.0000	22.9745

3.23 2.9 Tertiary Control Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5600e-003	0.0217	0.0174	5.0000e-005		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	4.7351	4.7351	1.5300e-003	0.0000	4.7734
Total	2.5600e-003	0.0217	0.0174	5.0000e-005		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	4.7351	4.7351	1.5300e-003	0.0000	4.7734

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.4600e-003	5.7000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7429	0.7429	3.0000e-005	0.0000	0.7437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.2000e-004	2.4200e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7276	0.7276	2.0000e-005	0.0000	0.7280
Total	4.0000e-004	2.6800e-003	2.9900e-003	2.0000e-005	1.0800e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.0000e-004	0.0000	1.4705	1.4705	5.0000e-005	0.0000	1.4717

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5600e-003	0.0217	0.0174	5.0000e-005		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	4.7351	4.7351	1.5300e-003	0.0000	4.7734
Total	2.5600e-003	0.0217	0.0174	5.0000e-005		9.0000e-004	9.0000e-004		8.3000e-004	8.3000e-004	0.0000	4.7351	4.7351	1.5300e-003	0.0000	4.7734

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.4600e-003	5.7000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7429	0.7429	3.0000e-005	0.0000	0.7437
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.2000e-004	2.4200e-003	1.0000e-005	9.1000e-004	1.0000e-005	9.2000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.7276	0.7276	2.0000e-005	0.0000	0.7280
Total	4.0000e-004	2.6800e-003	2.9900e-003	2.0000e-005	1.0800e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.0000e-004	0.0000	1.4705	1.4705	5.0000e-005	0.0000	1.4717

3.24 2.8 Pond Circulation Pump Station - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0700e-003	0.0729	0.0596	2.7000e-004		2.5800e-003	2.5800e-003		2.4600e-003	2.4600e-003	0.0000	23.0575	23.0575	3.2600e-003	0.0000	23.1389
Total	9.0700e-003	0.0729	0.0596	2.7000e-004		2.5800e-003	2.5800e-003		2.4600e-003	2.4600e-003	0.0000	23.0575	23.0575	3.2600e-003	0.0000	23.1389

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.2100e-003	2.9700e-003	4.0000e-005	9.7000e-004	2.0000e-005	9.8000e-004	2.7000e-004	2.0000e-005	2.8000e-004	0.0000	4.0713	4.0713	1.7000e-004	0.0000	4.0756
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.4000e-004	4.9600e-003	2.0000e-005	2.0300e-003	1.0000e-005	2.0500e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5612	1.5612	3.0000e-005	0.0000	1.5620
Total	9.8000e-004	9.6500e-003	7.9300e-003	6.0000e-005	3.0000e-003	3.0000e-005	3.0300e-003	8.1000e-004	3.0000e-005	8.3000e-004	0.0000	5.6325	5.6325	2.0000e-004	0.0000	5.6376

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0700e-003	0.0729	0.0596	2.7000e-004		2.5800e-003	2.5800e-003		2.4600e-003	2.4600e-003	0.0000	23.0575	23.0575	3.2600e-003	0.0000	23.1389
Total	9.0700e-003	0.0729	0.0596	2.7000e-004		2.5800e-003	2.5800e-003		2.4600e-003	2.4600e-003	0.0000	23.0575	23.0575	3.2600e-003	0.0000	23.1389

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.2100e-003	2.9700e-003	4.0000e-005	9.7000e-004	2.0000e-005	9.8000e-004	2.7000e-004	2.0000e-005	2.8000e-004	0.0000	4.0713	4.0713	1.7000e-004	0.0000	4.0756
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.4000e-004	4.9600e-003	2.0000e-005	2.0300e-003	1.0000e-005	2.0500e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.5612	1.5612	3.0000e-005	0.0000	1.5620
Total	9.8000e-004	9.6500e-003	7.9300e-003	6.0000e-005	3.0000e-003	3.0000e-005	3.0300e-003	8.1000e-004	3.0000e-005	8.3000e-004	0.0000	5.6325	5.6325	2.0000e-004	0.0000	5.6376

3.25 2.4 Perimeter Wall and Fencing - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0850	0.6621	0.5900	2.2000e-003		0.0252	0.0252		0.0232	0.0232	0.0000	193.5001	193.5001	0.0626	0.0000	195.0646
Total	0.0850	0.6621	0.5900	2.2000e-003		0.0252	0.0252		0.0232	0.0232	0.0000	193.5001	193.5001	0.0626	0.0000	195.0646

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0100e-003	0.1603	0.0517	7.3000e-004	0.0168	2.9000e-004	0.0171	4.6300e-003	2.8000e-004	4.9000e-003	0.0000	70.8546	70.8546	2.9800e-003	0.0000	70.9291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4200e-003	5.3800e-003	0.0605	2.1000e-004	0.0248	1.5000e-004	0.0250	6.6000e-003	1.4000e-004	6.7300e-003	0.0000	19.0359	19.0359	3.8000e-004	0.0000	19.0453

Total	0.0134	0.1656	0.1122	9.4000e-004	0.0416	4.4000e-004	0.0421	0.0112	4.2000e-004	0.0116	0.0000	89.8905	89.8905	3.3600e-003	0.0000	89.9744
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0850	0.6621	0.5900	2.2000e-003		0.0252	0.0252		0.0232	0.0232	0.0000	193.4999	193.4999	0.0626	0.0000	195.0644
Total	0.0850	0.6621	0.5900	2.2000e-003		0.0252	0.0252		0.0232	0.0232	0.0000	193.4999	193.4999	0.0626	0.0000	195.0644

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0100e-003	0.1603	0.0517	7.3000e-004	0.0168	2.9000e-004	0.0171	4.6300e-003	2.8000e-004	4.9000e-003	0.0000	70.8546	70.8546	2.9800e-003	0.0000	70.9291
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.4200e-003	5.3800e-003	0.0605	2.1000e-004	0.0248	1.5000e-004	0.0250	6.6000e-003	1.4000e-004	6.7300e-003	0.0000	19.0359	19.0359	3.8000e-004	0.0000	19.0453
Total	0.0134	0.1656	0.1122	9.4000e-004	0.0416	4.4000e-004	0.0421	0.0112	4.2000e-004	0.0116	0.0000	89.8905	89.8905	3.3600e-003	0.0000	89.9744

4.0 Operational Detail - Mobile

The project would not generate operational emissions - hence they were not included in this run.