Attachment 2

SUNNYVALE WATER POLLUTION CONTROL PLANT MASTER PLAN – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHANCEMENTS

Program Environmental Impact Report Addendum

Prepared for
City of Sunnyvale

November 2017

Sunnyvale Water Pollution Control Plant Master Plan – Caribbean Drive Parking and Trail Access Enhancements

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TABLE OF CONTENTS

Sunnyvale Water Pollution Control Plant Master Plan Addendum – Caribbean Drive Parking and Trail Access Enhancements

List of Appendices

List of Figures

List of Tables

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CHAPTER 1
Background and Purpose of the Addendum

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 ponds[1] that occupy about 436 acres in total. 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 12 million gallons per day (mgd) average dry weather flow.[2] 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 on Carl Road abut the main plant to the east and south, respectively; the Sunnyvale Landfill (now closed and 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 is located at the west end of Carl Road.

The City was the lead agency for the Sunnyvale Water Pollution Control Plant Master Plan Program Environmental Impact Report (PEIR) (State Clearinghouse No. 2015062037). 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.

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 one of these projects. Chapter 3 presents an evaluation of the environmental impacts of these modifications in comparison to the

1 Oxidation ponds are bodies of wastewater where oxygen is added to the water to promote the growth of algae and microorganisms, which consume solids and nutrients.

2 Average dry weather flow, or ADWF, is the average of the daily average flow during the three month period between June and September (the driest times of the year in Sunnyvale) that produces the minimum flow.

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.

Purpose of This Addendum

The CEQA Guidelines (Sections 15162 and 15164) allow that a lead agency may prepare an addendum to an adopted negative declaration if minor technical 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:

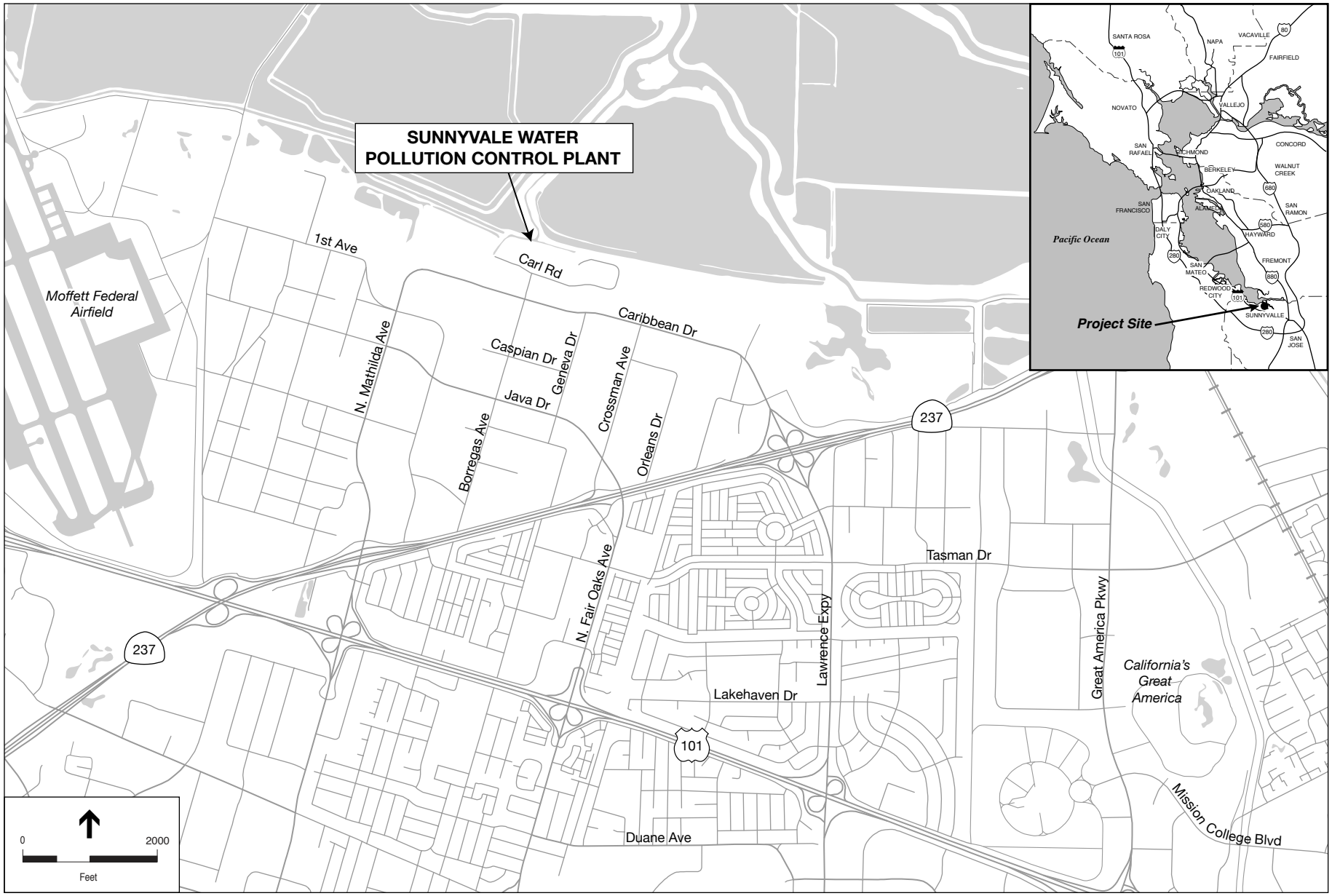
    a. The project will have one or more significant effects not discussed in the EIR;

    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 modifications to the Master Plan do not trigger any of the conditions described above.



SOURCE: Thomas Brothers; ESA

City of Sunnyvale Caribbean Drive Parking and Trail Access Enhancements . 160875

Figure 1
Site Location Map

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CHAPTER 2
Project Description

Summary of Previously Approved Project

The closure of Carl Road and relocation of public access to the Bay Trail project evaluated in the Sunnyvale Water Pollution Control Plant (WPCP) Master Plant Program Environmental Impact Report (PEIR) would have closed Carl Road to public access west of Borregas Avenue and relocated access to the San Francisco Bay Trail in order to accommodate the proposed improvements to the WPCP and ensure site security. Recreationists would instead access the Bay Trail and other neighboring trails via an enhanced access point along Caribbean Drive at the West Channel. Proposed upgrades included converting 950 feet of one lane of Caribbean Drive to the east and west of the access location to parking in combination with grading, sidewalk, and landscaping improvements. The enhancements to the trail access would occur following completion of the Santa Clara Valley Water District's East/West Channel project. The City evaluated the impacts of this project (the PEIR project) at a program level of detail in the PEIR.

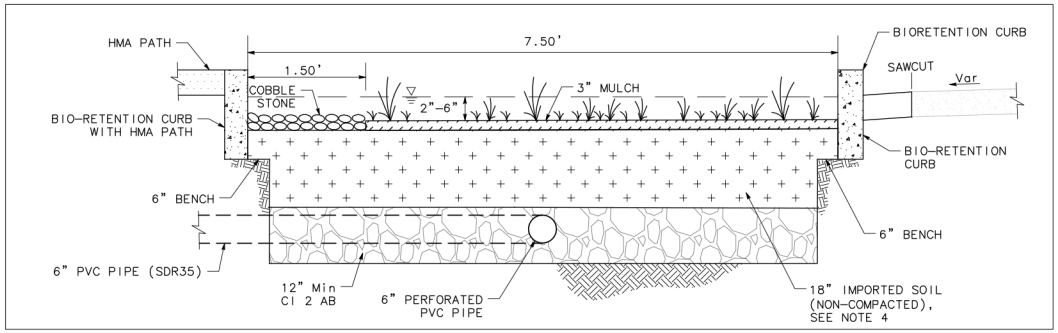
As part of Master Plan approval, the City adopted a Mitigation Monitoring and Reporting Program (MMRP) setting forth specific monitoring actions, timing requirements, and monitoring/verification entities for each mitigation measure identified in the PEIR.

Proposed Modifications to the Caribbean Drive Parking and Trail Access Enhancements Project

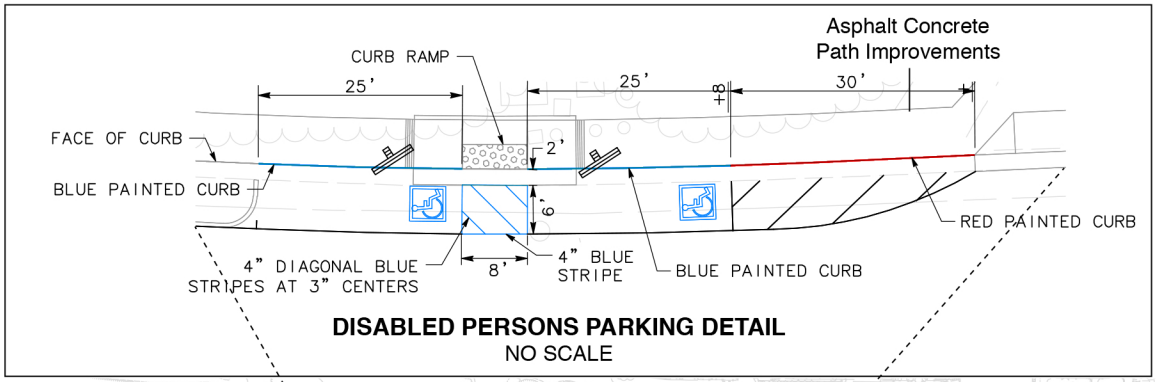
Following adoption of the PEIR, the City proceeded with design of the Caribbean Drive Parking and Trail Access Enhancements Project (the project), including making adjustments to the design to better meet City objectives. The project characteristics are shown in **Figure 2**, and described below.

Relocated Access to Bay Trail

The project would include the same public access facilities that were described in the PEIR with the following additional detail:



BIORETENTION DETAIL (TYPICAL)
NO SCALE



DISABLED PERSONS PARKING DETAIL
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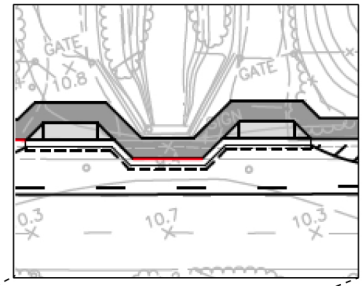
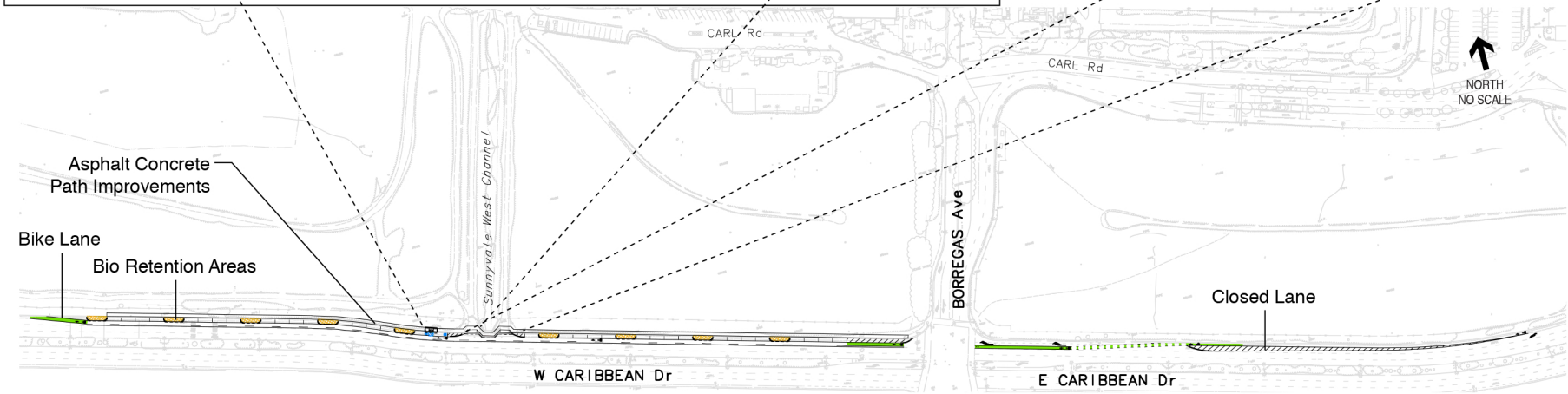
PATH IMPROVEMENTS NEAR SUNNYVALE WEST CHANNEL
NO SCALE





VICINITY MAP

NOTE: Preliminary information based on 30 percent design; details may change.

SOURCE: ESA; Mark Thomas

City of Sunnyvale Caribbean Drive Parking and Trail Access Enhancements . 160875

Figure 2
Project Layout and Features

- **Lane Reduction and New Parking Along Caribbean Drive.** The project would install 35 parking spaces, including two accessible parking spaces, along the northern side of Caribbean Drive west of the intersection with Borregas Avenue. The parking spaces would be interspersed with bioretention basins, described below. The new parking and bioretention areas would be accommodated by reducing from three travel lanes to two travel lanes on westbound Caribbean Drive west of Borregas Avenue for approximately 1,500 linear feet.

- **Path Improvements**. An approximately 1,500 foot-long and 10 foot-wide path of concrete sidewalk would be added behind the existing curb and gutter adjacent to the parking area, and concrete driveways would be constructed to allow access to the levees and trail. The new concrete sidewalk would drain to existing storm drainage facilities along Caribbean Drive or to the new bioretention areas.

- **Bike Lane and Lane Striping.** Bike lane striping would be painted on the pavement south of the parking area, and would transition to the existing bike lane east and west of the project area along Caribbean Drive. Pavement along the northern side of Caribbean Drive would be striped to merge from three lanes to two lanes starting approximately 1,000 feet east of the intersection with Borregas Avenue. Additional striping would create a right-turn pocket starting approximately 200 feet east of the intersection of Caribbean Drive and Borregas Avenue.

- **Bioretention Areas**. The project would construct nine approximately 280-square foot bioretention areas between parking spaces. Each bioretention area would be approximately 35 feet long, 8 feet wide, and will have a section depth of approximately 3 feet. The bioretention areas have been sized to capture and treat the majority of rainfall events generating polluted runoff, in accordance with state and local stormwater pollution prevention requirements. Each bioretention area will also have a sub-drain system to collect stormwater that does not infiltrate into the underlying soil and convey it to the existing storm drain inlets within the project area. The bioretention areas will be planted with native plants and will include irrigation.

- **Closure of Carl Road.** As described in the PEIR, Carl Road would be closed to public access west of Borregas Avenue and access to the San Francisco Bay Trail relocated to Caribbean Drive at the Sunnyvale West Channel. Approximately 15 public parking spaces are currently located on this portion of Carl Road. Parking at the new San Francisco Bay Trail access area would be provided as described above. Closure of Carl Road would occur after completion of the relocated parking and access.

Construction Characteristics

At the time of PEIR preparation, construction workforce, schedule, and equipment details were conservatively estimated for purposes of analysis. Construction characteristics are now available for the project, described below.

Construction Workforce and Schedule

Project construction would occur for an approximately four month period, from June to September, 2018. Offhaul of excavated material generated during bioretention area excavation, described below, would occur over two days during this four-month period. A maximum of 20 construction workers would staff the site. Construction activities would occur within normal City working hours, weekdays between the hours of 7:00 a.m. and 6:00 p.m.

Construction Equipment

Table 2-1 lists the equipment that would be used to construct the project.

TABLE 2-1
CONSTRUCTION EQUIPMENT

• Graders	• Compactor	• Paving equipment
• Skid Steer Loader	• Concrete mixer	• Pavement saw
• Excavator	• 10-wheel dump trucks	

Construction Staging and Access

All construction materials, equipment, storage, stockpiling, and staging would occur onsite in currently paved areas of Caribbean Drive. The site would be accessed from Caribbean Drive.

Construction Activities

During construction, implementation of stormwater runoff control best management practices would be required by the City. Construction would be scheduled to maintain utilities service at all times. Utility locations would be verified by the contractor prior to excavation.

Operating Characteristics

Once construction is complete, the bike lane, path, and parking area would be available for public use. Persons interested in accessing the San Francisco Bay Trail would use the new parking area instead of the existing parking on Carl Road. The relocated access would connect to existing segments of the Bay Trail. Directional signage would be installed identifying San Francisco Bay Trail access from the new parking area. Carl Road would be closed to public access, and would be used by WPCP staff for parking, site access, and staging during current and future construction.

As discussed above, the bioretention areas would capture stormwater runoff from surrounding paved areas during wet weather, causing the runoff to either infiltrate into the ground or drain to the existing stormwater drainage system.

Updated Master Plan Phasing

The Master Plan includes improvements to the WPCP's major process areas over the next 20-plus years. 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. During project construction, the Primary Treatment Facility would be the only other Clean Water Program[1] project under construction. The City of Sunnyvale evaluated the potential environmental effects of the Primary Treatment Facility in the *Sunnyvale WPCP Primary Treatment Facility Initial Study/Mitigated Negative Declaration* (IS/MND), adopted on May 5, 2015. The Primary Treatment Facility project was modified in 2017, but would generally include the same primary treatment facilities that were described in the IS/MND. The modified project would not include the Chemically Enhanced Primary Treatment Facility. The modified project would also reduce the length of the primary effluent pipeline, install a shallower and narrower utility corridor within the WPCP main plant, and use a below-ground tee, rather than a junction box, to connect the new primary effluent pipeline to the existing primary effluent pipeline. With implementation of the proposed modifications to the Primary Treatment Facility project, the amount and intensity of construction (in terms of quantity of earthwork and concrete work and thus offroad equipment use, number and type of construction activities that could occur concurrently, and construction duration) would be similar to or less than that evaluated in the IS/MND.

[1] The Sunnyvale Clean Water Program is the City of Sunnyvale's long-term capital improvement program to renovate the WPCP through a series of projects and upgrades.

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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 Caribbean Drive Parking and Trail Access Enhancements 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 included 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 all of the mitigation measures from the adopted MMRP that apply to the project. 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.

- **Aesthetics**. The designated scenic vistas and resources in the vicinity of the project have not changed since preparation of the PEIR. The project would not remove trees, affect buildings, include new sources of light or glare, or otherwise alter the character of Caribbean Drive or Carl Road beyond the alterations identified in the PEIR.
- **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.
- **Cultural Resources.** The locations of ground disturbance have not changed in ways relevant to historical, archeological, and paleontological resources at the site or surrounding areas. Applicable mitigation measures are included in Chapter 5.
- **Energy Conservation**. The construction equipment and activities proposed for the project would be similar to that evaluated in the PEIR. The project would not use energy during operations.
- **Geology, Soils, Seismicity, and Mineral Resources**. The nature, scale, and timing of the project have not changed in a manner that would further 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.
- **Hazards and Hazardous Materials**. The locations of ground disturbance have not changed in ways relevant to hazards and hazardous materials at the site or surrounding areas. Applicable mitigation measures are included in Chapter 5.

- **Hydrology and Water Quality**. The nature, scale, and timing of the project have not changed in a manner that would deplete additional groundwater, further affect drainage patterns or systems, alter water quality or further affect flooding because the facilities would be located at the same site evaluated in the PEIR and would not change the wastewater treatment technologies beyond what was evaluated in the PEIR. The bioretention areas would improve stormwater quality and attenuate peak stormwater flows.

- **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 project would maintain connection to existing segments of the Bay Trail, consistent with General Plan policies to support the regional trail system. In addition, the proposed relocated access would be consistent with San Francisco Bay Plan policies related to public access, as it would be designed to accommodate access for all persons, would include signage designating the Bay Trail access location, and would be located in areas already accessible to the public with parking and access via public transportation.

- **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 project site are approximately 0.8 miles away and separated from the area by the intervening commercial and industrial land uses and State Route 237. No new receptors closer than those identified in the PEIR occur in the vicinity of the project site. The amount and intensity of construction (in terms of quantity of earthwork and concrete work and associated truck trips and offroad equipment use, number and type of construction activities that could occur concurrently, and construction duration) would be similar to or incrementally less than that evaluated in the PEIR for other, more intensive Master Plan projects. The project with modifications 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 construction amount and intensity would be similar to or incrementally less than 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, the cultural resources and 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 the schedule of the Sunnyvale East-West Channels project has shifted into the future; these changes in the cumulative scenario would not alter the cumulative impact conclusions of the PEIR beyond the discussions included below. The effects of the project on human beings are adequately addressed in the PEIR except for Air Quality, Greenhouse Gas, Transportation, and Biological Resources impacts, which are discussed below.

Additions to the PEIR discussion of the remaining topics are included below. 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.

Transportation

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporated*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved project*
16. TRANSPORTATION/TRAFFIC — Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒	☐

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.

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 select adopted mitigation measures applicable to transportation impacts.

Discussion

Congestion Management Program

As discussed in the PEIR, Caribbean Drive is the CMP system network roadway nearest to the Master Plan and the project area. The project would not generate new (increased) traffic once operational, so the volume of traffic on Caribbean Drive would not change as a result of the project. The average weekday daily traffic on Caribbean Drive (12,883) is slightly less than that identified in the PEIR (13,248 vehicles) (Kimley Horn, 2017). As discussed in the PEIR, the carrying capacity for four-lane divided arterials, which is what Caribbean Drive would become in the westbound direction with implementation of the project, ranges from 20.000 to 33,000 vehicles per day.

The project would reduce the number of travel lanes on westbound Caribbean Drive in the vicinity of Borregas Avenue from three to two. The effects on CMP-designated roadways of removal of one travel lane from westbound Caribbean Drive was evaluated in the PEIR. For this reason, the impact would be the same as that identified in the previously approved PEIR

Air Traffic Patterns

The project would not construct facilities taller than ground-level in areas not previously evaluated in the PEIR. There would be no impact.

Measures of Effectiveness for the Performance of the Circulation System

The Master Plan would have a peak of 564 one-way truck trips per day during construction; the project would have a maximum of 40 one-way truck trips per day during construction. The 20 construction workers 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 and TR-1b, 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.

Traffic Safety Hazards

During construction, while the number of haul trucks would be substantially lower than evaluated in the PEIR, trucks would access the public right-of-way on Caribbean Drive during construction, which could create traffic safety hazards, the same impact as discussed in the PEIR. In addition, the project length is approximately 600 feet longer than the improvements evaluated in the PEIR. With implementation of adopted Mitigation Measure TR-1b, the impact of these potential construction traffic safety hazards would be less than significant with mitigation. As noted above, the project lane closure, parking, and pavement striping would be similar to that evaluated in the PEIR; pavement markings would direct westbound motorists and cyclists through the transition from three lanes to two lanes and back to three lanes. As a result, 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.

Emergency Access

The project would not result in new or more 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.

Alternative Transportation Facilities

The project would replace the existing bicycle lane along westbound Caribbean Drive, install a new sidewalk between Borregas Avenue and an area west of the Sunnyvale West Channel (alongside all new parking areas), and continue to provide access to the San Francisco Bay Trail from Caribbean Drive, overall adding new alternative transportation infrastructure to Caribbean Drive. With regard to bicycle safety during construction, consistent with adopted Mitigation Measure TR-1b, the Temporary Traffic Control Plan would identify detours by bicycles and pedestrians in all areas affected by construction and would maintain bicycle and pedestrian access when safe to do so. The effect of the project on alternative transportation facility performance and safety would not be substantially adverse.

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). As discussed in Chapter 2, project construction would overlap with construction of the Primary Treatment Facility at the WPCP. Project construction may also overlap with construction of the Sunnyvale East-West Channels Flood Protection project. It is possible that service levels along Caribbean Drive could be temporarily degraded by construction activity. 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 substantially more operational or construction vehicle trips than those identified in the previously approved PEIR, 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. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Implementation of the adopted mitigation measures applicable to transportation would reduce possible impacts associated with a reduction in roadway capacity and potential impacts to emergency access during construction of the project to a less than significant level, and the project would not result in any new or more significant impacts. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

The proposed Project would not result in new or more significant impacts to public transit, bicycle and pedestrian facilities, or traffic-related hazards than those identified in the previously approved PEIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

With the 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. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

Air Quality

Issues (and Supporting Information Sources):		*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporated*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact Than Approved Project*
3.	**AIR QUALITY — Would the project:**					
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐	☒
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☐	☒
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒	☐

Setting

Air Quality Plans

Regional air quality planning 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). The primary goals of the *2017 CAP* are to protect public health and protect the climate (BAAQMD, 2017). The plan includes a wide range of control measures aimed 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 Plan 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 greenhouse gases that contribute to climate change. To fulfill state ozone planning requirements, the 2017 control strategy 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 Plan builds upon and enhances the Air District's efforts to reduce emissions of fine particulate matter and toxic air contaminants (BAAQMD, 2017). In addition, 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 greenhouse gases in the Bay Area and lay the groundwork to attain ambitious GHG reduction targets for 2030 and 2050.

The state and federal non-attainment status of the San Francisco Bay Area Air Basin (SFBAAB) has not changed since adoption of the PEIR. At the time of PEIR adoption, the SFBAAB was designated as a nonattainment area for state and national ozone standards, state particulate matter (PM_{10} and $PM_{2.5}$) standards, and federal $PM_{2.5}$ (24-hour) standard.

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 BAAQMD 2011 guidelines provides substantial evidence for the derivation of the thresholds and the approach to employing them in an air quality impact analysis (BAAQMD, 2009). 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 pollution 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.

Sensitive Receptors

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 of the mitigation measures identified in the PEIR and subsequently adopted by the City (Mitigation Measure AQ-2a) is reproduced in Chapter 5, *Mitigation Monitoring and Reporting Program*.

Table 3-1 reproduces relevant portions of PEIR Table 4.5-4 (from PEIR page 4.5-17) for reference, and summarizes emissions estimated for construction of the project in combination with demolition of the primary sedimentation tanks. As shown in the table, the combination of these projects would not exceed the BAAQMD average daily significance thresholds for ROG, NOx, PM10, or PM2.5 during construction.

TABLE 3-1
MASTER PLAN AVERAGE DAILY CONSTRUCTION EXHAUST EMISSIONS

Master Plan Construction Stage	Average Daily Emissions (pounds per day)				
	ROG	NO_x	PM_{10}	$PM_{2.5}$	Likely to be Significant?
1A – Existing WPCP Rehabilitation	NA	NA	NA	NA	Yes
1B – Demolition of Primary Sedimentation Tanks and Relocation of Bay Trail head	2.2	20.1	1.5	1.6	No
Significance Thresholds	**54**	**54**	**82**	**54**	**--**

NA = Not Available
NOTE: Refer to PEIR Appendix B for assumptions and emissions estimate calculations.

Discussion

Overview of Changes in Construction and Operation Resulting from Project Modifications

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 in light of updated construction information and analysis of air pollutant emissions would be revised accordingly.

Construction details of the project are sufficiently known to calculate conservative air pollutant emissions during construction. **Table 3-2** shows the estimated criteria air pollutant construction exhaust emissions for the project. As shown in the table, emissions associated with the project would be less than the identified significance thresholds, and also less than identified for Construction Stage 1B in the PEIR (Construction Stage 1B emissions reproduced in Table 3-1, above). Refer to **Appendix A** for assumptions and emissions estimate calculations.

TABLE 3-2
AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS (POUNDS/DAY)

Source	ROG	NOx	Exhaust PM10[b]	Exhaust PM2.5[b]
Caribbean Drive Parking and Trail Access Enhancements [a]	2.2	21.3	0.9	0.9
BAAQMD Construction Threshold	*54*	*54*	*82*	*54*
Significant Impact?	No	No	No	No

[a] Emissions were modeled using CalEEMod 2016.3.1.
b BAAQMD's proposed construction-related significance thresholds for PM10 and PM2.5 apply to exhaust emissions only and not to fugitive dust.

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).

Operations of the project would occur as described in the PEIR; for this reason, no new or more severe environmental impacts would result from project operation than were disclosed 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.

Since approval of the PEIR, the air quality plan has been updated. The primary goals of the *2017 Clean Air Plan* 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. As discussed below, the project would result in less than significant construction emissions with implementation of adopted Mitigation Measure AQ-2a, and would not result in long-term adverse air quality impacts. Therefore, the project with modifications would be considered supportive of the primary goals of the 2017 Clean Air Plan.

The 2017 Clean Air Plan 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 POTWs [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 existing methane capture at the WPCP, would not affect production of recycled water at the WPCP, and would not install new engines at the WPCP. For these reasons, the project with modifications would not be inconsistent with nor hinder implementation of the 2017 Clean Air Plan control measures.

Violation of Air Quality Standards

The PEIR analysis determined that construction-related exhaust emissions of Construction Stage 1B, which included the Caribbean Drive Parking and Trail Access Enhancements project, did not exceed BAAQMD thresholds, and that implementation of BAAQMD Basic Construction Measures (Mitigation Measure 2a, subsequently adopted by the City in its approval of the Master

Plan) would reduce fugitive dust emissions such that the project's impact on compliance with air quality standards would be less than significant. Because the project would not exceed construction-related exhaust emissions significance thresholds, with implementation of adopted Mitigation Measure AQ-2a the project would result in less-than-significant construction emission impacts.

Cumulative Increase in Pollutants

As described in the PEIR (page 4.5-12), a project's emissions would be considered cumulatively considerable if the project emissions exceed the identified significance thresholds. For the reasons described above, the project would result in less-than-significant impacts associated with construction emissions with mitigation incorporated, and less-than-significant impacts associated with operational emissions of criteria air pollutants. Therefore, the project would not result in a cumulative considerable net increase in any of the criteria pollutants for which the Bay Area is in nonattainment.

Exposure of Sensitive Receptors

As noted above, no new sensitive receptors are located closer to the project area than those identified in the PEIR. For this reasons, the project's effects associated with exposure of sensitive receptors to pollutants would be no greater than those identified in the PEIR and would be less than significant.

Odorous Emissions

The project would not include operation of an odor source and would locate public access farther from the WPCP. No new or more severe environmental effects related to odors would result beyond those identified in the PEIR.

Conclusion

With the implementation of adopted Mitigation Measure AQ-2a to reduce possible impacts associated with conflicts with implementation of the applicable air quality plan or violation of air quality standards, the project would not result in any new or more significant impacts than those identified in the previously adopted PEIR. (**Less Impact than Previously Approved Project [Less than Significant Impact with Mitigation]**)

The project would not result in a cumulatively considerable net increase of criteria air pollutant emissions, additional exposure of sensitive receptors to substantial pollutant concentrations, or create additional objectionable odors affecting a substantial number of people than those identified in the previously adopted PEIR. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):	New Potentially Significant Impact	New Less Than Significant with Mitigation Incorporated	New Less Than Significant Impact	Same Impact as Approved Project	Less Impact than Approved Project
7. GREENHOUSE GAS EMISSIONS — Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☒	☐

Setting

Updates to two of the three planning documents identified in the PEIR – the Sunnyvale Climate Action Plan (CAP) and CARB's Climate Change Scoping Plan – have not been adopted since PEIR approval. As discussed above in Air Quality, the BAAQMD 2017 Clean Air Plan was released after approval of the PEIR.

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

GHG Emissions

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 in light of updated construction information and analysis of GHG emissions would be revised accordingly.

The PEIR estimated construction GHG emissions over the Master Plan development period by amortizing the emissions over 30 years (**Table 3-3** includes this value for reference). With the additional information now available for construction of the project, the annual GHG emissions for the project can be calculated directly and compared to the BAAQMD's GHG significance threshold of 1,100 metric tons of CO2e per year, which would be considered to result in a significant impact on the environment. This threshold is applicable to projects that are not a

stationary source of GHG emissions. Table 3-3 presents the estimated GHG emissions from the project. Refer to Appendix A for assumptions and emissions estimate calculations.

TABLE 3-3
ESTIMATED GHG EMISSIONS FOR THE PROJECT

Emissions Source	CO_2e (metric tons per year)
30-Year Amortized Construction Emissions (Master Plan)	64
Caribbean Drive Construction	143
Significance Threshold	1,100
Exceeds the threshold?	No

NOTE: See Appendix A for all assumptions used to estimate construction emissions associated with the project. See PEIR Appendix C for all assumptions used to estimate construction emissions that would be associated with the Master Plan.

The associated impact would thus be less than significant.

Consistency with GHG Plans, Policies, or Regulations

The 2017 Clean Air Plan does not include any stationary source measures applicable to the project. The project would not disrupt or hinder implementation of any of the GHG-related 2017 Clean Air Plan control measures.

The BAAQMD GHG thresholds referenced in the discussion above were designed to meet the AB32 goal of reducing GHG emissions to 1990 levels by 2020. As discussed above, the project would not result in any temporary or new permanent sources of GHG emissions that would exceed the BAAQMD's CO2e significance threshold of 1,100 metric tons per year. Since the BAAQMD GHG significance threshold would not be exceeded, the project would not result in a cumulatively considerable increase in GHG emissions that would impair the State's ability to implement AB32.

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. (**Same Impact as Previously Approved Project [Less than Significant Impact]**)

Biological Resources

Issues (and Supporting Information Sources):	*New Potentially Significant Impact*	*New Less Than Significant with Mitigation Incorporated*	*New Less Than Significant Impact*	*Same Impact as Approved Project*	*Less Impact than Approved Project*
4. BIOLOGICAL RESOURCES — Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	☐
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?	☐	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	☐
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?	☐	☐	☐	☒	☐

Setting

Biological resources located within and surrounding the Project site reflect a portion of the same resources described in the adopted PEIR. The state and local plan designations relevant to biological resources within and surrounding the project site have not changed. The biological resources setting relevant to the project site, including applicable regulations and conditions of sensitive habitats and natural communities such as wetlands and riparian areas, and special status plant and wildlife species, has not appreciably changed since the adoption of the PEIR.

Findings of Previously Adopted PEIR

The PEIR identified significant and unavoidable cumulative impacts on ruddy duck migration routes resulting from implementation of the Master Plan along with other southern San Francisco Bay tidal restoration projects. The PEIR found that all other impacts on biological resources would be less than significant or would be reduced to less-than-significant levels with

implementation of mitigation measures. In particular, the PEIR found that the Master Plan could result in impacts to special-status plants and animals, open water and wetland habitats, protected trees, nesting birds, roosting bats, riparian habitat, and could conflict with an adopted habitat conservation plan. These impacts would be reduced to less-than-significant levels with implementation of mitigation measures adopted by the City as part of the Master Plan MMRP. Chapter 5, *Mitigation Monitoring and Reporting Program*, reproduces those adopted mitigation measures that are applicable to biological resources impacts.

Discussion

At the time of PEIR preparation, construction footprint details of the closure of Carl Road and relocation of Bay Trail access were not known. The PEIR estimated the potential effects of the project on biological resources by assuming that construction staging areas and temporary parking areas associated with project activities would be located in previously developed areas and would not affect ruderal grassland or sensitive habitats. As described in Chapter 2, construction staging and parking would occur within the project site in currently paved areas of Caribbean Drive. While all excavation and staging would occur within currently paved areas, the path improvements would pave a currently unpaved area adjacent to Caribbean Drive.

These path improvements would result in ground disturbance near the Sunnyvale West Channel. As shown in Figure 2, the path improvements would extend parallel to and between an existing headwall and wingwalls for the Sunnyvale West Channel and Caribbean Drive. These existing wing walls, which extend approximately two feet above the southern side ground surface, would not be affected by the project, and would prevent runoff from the construction area from directly flowing into Sunnyvale West Channel. Construction activities would also be required to comply with Chapter 12.60, *Stormwater Management*, of the Sunnyvale Municipal Code. During and after construction, stormwater runoff from the project area would drain to the existing stormwater collection facilities either in Caribbean Drive or in the bioretention areas.

Due to the protective presence of the headwall and wing walls and compliance with Chapter 12.60 of the Sunnyvale Municipal Code, the following significant impacts identified in the PEIR for activities around the Sunnyvale West Channel would be less than significant for the project:

- Impact BIO-2, Loss of or damage to special-status wildlife species (Impacts on Water Quality, Special Status Fish).

- Impact BIO-3, Loss of or damage to open water and wetland habitats that are considered Waters of the U.S. and/or State (Avoidance of Open Water and Wetland Habitats).

Conclusion

With the implementation of adopted Mitigation Measures BIO-1a, BIO-2a, BIO-2d, BIO-2e, and BIO-2h (included in Chapter 5 of this document) to reduce possible impacts to biological resources, the project would not result in any new or more significant impacts than those identified in the previously adopted PEIR. (**Same Impact as Previously Approved Project [Less than Significant Impact with Mitigation]**)

References

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report, CEQA Thresholds of Significance Air Quality Guidelines, October 2009. [http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf] Accessed May 23, 2017.

BAAQMD, 2017. Spare the Air Cool the Climate, 2017 Clean Air Plan. [http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf] Accessed May 23, 2017.

Kimley Horn, *Technical Memorandum: Caribbean Drive at Borregas Avenue – Roadway Segment Analysis*, October 19, 2017.

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CHAPTER 4
Conclusion

The modifications to the Caribbean Drive Parking and Trail Access Enhancements Project would result in impacts similar to, or less than, those attributable to the project described in the Sunnyvale Water Pollution Control Plant (WPCP) Master Plan Program Environmental Impact Report (PEIR).

The analysis 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 – Caribbean Drive Parking and Trail Access Enhancements

Table 5-1 presents mitigation measures and City actions to implement, monitor and report on these measures that apply to the Caribbean Drive Parking and Trail Access Enhancements project. These measures were adopted by the City Council on August 23, 2016. **Table 5-2** 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 5-1
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Transportation					
Mitigation Measure TR-1a: Truck Route Plan. 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.	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	*Verified by:* *Date:*
Mitigation Measure TR-1b: Implement a Temporary Traffic Control Plan. 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' *California Manual on Uniform Traffic Control Devices*, Part 6 (Temporary Traffic Control; Caltrans, 2014). The traffic control plan shall include, but not be limited to, the following elements: • 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	*Verified by:* *Date:*
Mitigation Measure C-TR-1: Implement Coordinated Transportation Management Plan. 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: • 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: - 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	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	*Verified by:* *Date:*

TABLE 5-1 (Continued)
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Transportation (cont.)					
Mitigation Measure C-TR-1 (con.) - 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.					
Air Quality					
Mitigation Measure AQ-2a: Implement BAAQMD Basic Construction Mitigation Measures. The City shall implement the following applicable BAAQMD Basic Construction Mitigation Measures to reduce emissions of fugitive dust and equipment exhaust: • 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	Verify inclusion of measures in contract specifications and construction plans. Inspect construction site to confirm compliance by the contractor, report non-compliance and ensure corrective action.	Prior to construction During construction	*Verified by:* *Date:*
Biological Resources					
Mitigation Measure BIO-1a: Reduce Impacts on Congdon's Tarplant. • 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.	Contractor(s) shall prepare construction plans that incorporate protocol-level pre-construction surveys for Congdon's tarplant. The Contractor shall identify a qualified biologist Qualified biologist will conduct pre-construction surveys. Qualified biologist to inspect construction site to confirm implementation of measures. Locate compensatory mitigation site, as needed, and select qualified biologist to collect and disseminate seeds from affected population during appropriate season (generally September/October) Qualified biologist shall collect and disseminate seeds from affected population during appropriate season	City of Sunnyvale Public Works Department City of Sunnyvale Public Works Department	Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates. Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation. Inspect and confirm implementation of construction buffer zone(s) based on pre-construction survey results. Review pre-construction survey reports for recommended avoidance, buffer, and/or need for compensatory mitigation. Secure record of planting from qualified biologist	Prior to commencement of construction. After completion of pre-construction survey report. One inspection shall occur during each phase of construction. After completion of pre-construction survey report. After completion of planting.	*Verified by:* *Date:* *Verified by:* *Date:*

TABLE 5-1 (Continued)
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
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.	City or contractor(s) to retain a qualified biologist to conduct environmental awareness training for construction personnel. Qualified biologist to conduct training(s)	City of Sunnyvale Public Works Department	Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates. Verify inclusion of the Plan in contract specifications. Record name of appointed representative to contact Record date(s) of training	Prior to construction outside of the main plant	*Verified by:* *Date:*
Mitigation Measure BIO-2d: Western Pond Turtle Measures. The following measures will be implemented to avoid and minimize impacts on western pond turtles in portions of the Master Plan area outside of the main plant fenceline, particularly in or near the Sunnyvale West Channel: • Impacts on aquatic habitat of the western pond turtle, such as the Sunnyvale West Channel, will be minimized to the extent feasible. • A qualified biologist shall conduct a survey for western pond turtles and their nests immediately (i.e., within 2 hours) prior to commencement of work along the Sunnyvale West Channel. If a western pond turtle is found in an area where it could be injured or killed by Master Plan improvement activities, the biologist will relocate the turtle to an appropriate site outside the construction disturbance area. • Following the initial survey, a construction crewmember who has been trained to identify western pond turtles by a qualified biologist shall conduct a survey of the work area along the Sunnyvale West Channel area each morning prior to the onset of construction activities. If a turtle is located, all work in the vicinity shall immediately cease, and a qualified biologist shall be contacted. Work within the area shall not resume until the turtle has been relocated or has moved on its own out of the construction disturbance area. • If an active western pond turtle nest is detected within the activity area, a 25 foot-buffer zone around the nest will be established and maintained during the nesting season (April 1 through August 31) until the young have left the nest or it is no longer active due to predation, as determined by a qualified biologist.	Contractor to retain qualified biologist Contractor to prepare construction plans that incorporate pond turtle survey Biologist to conduct survey prior to construction Biologist to train construction crew member Biologist to implement buffer if nest is found	City of Sunnyvale Public Works Department	Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates. Verify inclusion of these measures in contract specifications and construction plans Review survey report	Prior to construction	*Verified by:* *Date:*
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 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.	Contractor to prepare plans that incorporate preconstruction surveys, buffer zones, and relocation plan Contractor to identify qualified biologist to conduct preconstruction surveys Qualified biologist to establish buffer zones or conduct owl relocation, as needed	City of Sunnyvale Public Works Department	Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates. Verify inclusion of these measures in contract specifications and construction plans Review survey report If burrowing owls present, inspect construction site to confirm buffer zones	Prior to construction During construction	*Verified by:* *Date:*

TABLE 5-1 (Continued)
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Biological Resources (cont.)					
Mitigation Measure BIO-2e (cont.) • 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).					
Mitigation Measure BIO-2h: Nesting Bird Measures. 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: • 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: - 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).	Contractor(s) to prepare construction plans that include schedule of vegetation removal, nest deterrence, preconstruction surveys, and buffer zones Contractor to identify qualified biologist to conduct nesting deterrence measures Contractor to remove vegetation within non-breeding season Biologist to implement nesting deterrence measures	City of Sunnyvale Public Works Department	Review qualifications of Contractor-nominated biologist and either approve or recommend identification of additional candidates. Verify inclusion of measures in contract specifications and construction plans	Prior to construction	*Verified by:* *Date:*

TABLE 5-1 (Continued)
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Hazards and Hazardous Materials					
Mitigation Measure HAZ-2b: Health and Safety Plan. 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.	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	
Mitigation Measure HAZ-2c: Soil and Groundwater Management Plan. 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. • 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	

TABLE 5-1 (Continued)
MITIGATION MONITORING PROGRAM – CARIBBEAN DRIVE PARKING AND TRAIL ACCESS ENHACEMENTS PROJECT

Mitigation Measures Adopted as Conditions of Approval	Implementation Procedures	Monitoring Responsibility	Monitoring and Reporting Action	Monitoring Schedule	Verification of Compliance
Cultural Resources					
Mitigation Measure CUL-2: Unanticipated Discovery of Archaeological Resources. 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. 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.	City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources Contractor to notify City of Sunnyvale if resources encountered Secretary of the Interior-qualified archaeologist will inspect the findings within 24 hours of discovery Archaeologist, City, and contractor to implement mitigation as determined by archaeologist	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	*Verified by:* *Date:*
Mitigation Measure CUL-3: Unanticipated Discovery of Paleontological Resources. 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.	City or Contractor to retain cultural resources expert to conduct preconstruction worker environmental awareness training on recognition of archaeological resources Contractor to notify City of Sunnyvale if resources encountered	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	*Verified by:* *Date:*
Mitigation Measure CUL-4: Unanticipated Discovery of Human Remains. 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 for the appropriate means of treating the human remains and any grave goods.	Contractor(s) shall monitor worker activities 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).	City of Sunnyvale Public Works Department	Verify inclusion of requirements in contract specifications	Prior to ground disturbance	*Verified by:* *Date:*

TABLE 5-2
ADOPTED MITIGATION MEASURES THAT DO NOT APPLY TO THE PROJECT

Adopted Mitigation Measures	Reason Measure Does Not Apply to Caribbean Drive Parking and Trail Access Enhancements
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 because project emissions would not exceed emissions thresholds
Mitigation Measure BIO-1b: Prevent the Introduction and Spread of Non-native, Invasive Species.	Does not apply due to location
Mitigation Measure BIO-2b: Minimization of Impacts on Water Quality.	Does not apply because project does not directly drain to Sunnyvale West Channel.
Mitigation Measure BIO-2c: Special-Status Fish Measures.	Does not apply due to presence of wing wall.
Mitigation Measure BIO-2f: California Ridgway's Rail and California Black Rail Measures.	Does not apply due to location
Mitigation Measure BIO-2g: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Measures.	Does not apply due to location
Mitigation Measure BIO-3a: Avoidance of Open Water and Wetland Habitats.	Does not apply due to presence of wing wall.
Mitigation Measure BIO-3b: Compensatory Mitigation for Aquatic and Wetland Habitats.	Does not apply due to nature of project activities.
Mitigation Measure BIO-4a: Avoidance and Preservation of Trees.	Does not apply because project does not include tree removal.
Mitigation Measure BIO-4b: Master Plan Compensation for Impacts on Protected Trees.	Does not apply because project does not include tree removal.
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 HAZ-2a: Hazardous Building Materials Abatement.	Does not apply because no demolition proposed.
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
Air Quality

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MT Caribbean drive - Construction Emissions - Santa Clara County, Annual

MT Caribbean drive - Construction Emissions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	11.50	1000sqft	0.26	11,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - New area = 15,000 square feet per Equipment spreadsheet

Construction Phase - Approximate schedule is June through September 2018. Totals conservatively assume all equipment would operate each business day during this period.

Off-road Equipment - Assumed construction equipment

Off-road Equipment - From Equipment excel sheet

Off-road Equipment - Assumed construction equipment

Off-road Equipment -

Trips and VMT - Assumed construction trips

Grading - Acres graded = 15,000 sf

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	690	0
tblConstructionPhase	NumDays	2.00	86.00
tblConstructionPhase	NumDays	5.00	86.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.60	0.00
tblFleetMix	LDT1	0.04	0.00
tblFleetMix	LDT2	0.19	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	4.9810e-003	0.00
tblFleetMix	MCY	5.3630e-003	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	7.8500e-004	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	2.0830e-003	0.00
tblFleetMix	SBUS	6.2000e-004	0.00
tblFleetMix	UBUS	1.5710e-003	0.00
tblGrading	AcresOfGrading	43.00	0.26
tblOffRoadEquipment	HorsePower	9.00	200.00
tblOffRoadEquipment	HorsePower	132.00	174.00
tblOffRoadEquipment	HorsePower	8.00	15.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorTripLength	7.30	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripLength	10.80	20.00
tblTripsAndVMT	WorkerTripNumber	10.00	40.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0938	0.9169	0.7265	1.5900e-003	0.0323	0.0394	0.0718	8.6700e-003	0.0373	0.0460	0.0000	142.7954	142.7954	0.0271	0.0000	143.4719
Maximum	**0.0938**	**0.9169**	**0.7265**	**1.5900e-003**	**0.0323**	**0.0394**	**0.0718**	**8.6700e-003**	**0.0373**	**0.0460**	**0.0000**	**142.7954**	**142.7954**	**0.0271**	**0.0000**	**143.4719**

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					
2018	0.0938	0.9169	0.7265	1.5900e-003	0.0323	0.0394	0.0718	8.6700e-003	0.0373	0.0460	0.0000	142.7953	142.7953	0.0271	0.0000	143.4718
Maximum	**0.0938**	**0.9169**	**0.7265**	**1.5900e-003**	**0.0323**	**0.0394**	**0.0718**	**8.6700e-003**	**0.0373**	**0.0460**	**0.0000**	**142.7953**	**142.7953**	**0.0271**	**0.0000**	**143.4718**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2018**	**8-31-2018**	0.7701	0.7701
2	**9-1-2018**	**9-30-2018**	0.2330	0.2330
		Highest	0.7701	0.7701

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	7.5000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

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	7.5000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Truck Hauling	Site Preparation	6/1/2018	6/1/2018	5	1	
2	Grading	Grading	6/1/2018	9/28/2018	5	86	
3	Paving	Paving	6/1/2018	9/28/2018	5	86	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.26

Acres of Paving: 0.26

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Skid Steer Loaders	1	8.00	65	0.37
Paving	Cement and Mortar Mixers	1	8.00	200	0.56
Paving	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	1	8.00	174	0.36
Paving	Plate Compactors	1	8.00	15	0.43

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
Truck Hauling	0		0.00	40.00	10.80	7.30	20.00			HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	40.00	10.00	0.00	20.00	10.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Truck Hauling - 2018

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.9000e-004	6.5600e-003	1.2700e-003	2.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.5566	1.5566	7.0000e-005	0.0000	1.5584
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9000e-004**	**6.5600e-003**	**1.2700e-003**	**2.0000e-005**	**3.4000e-004**	**3.0000e-005**	**3.7000e-004**	**9.0000e-005**	**3.0000e-005**	**1.2000e-004**	**0.0000**	**1.5566**	**1.5566**	**7.0000e-005**	**0.0000**	**1.5584**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total					**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	1.9000e-004	6.5600e-003	1.2700e-003	2.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.5566	1.5566	7.0000e-005	0.0000	1.5584
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
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.9000e-004**	**6.5600e-003**	**1.2700e-003**	**2.0000e-005**	**3.4000e-004**	**3.0000e-005**	**3.7000e-004**	**9.0000e-005**	**3.0000e-005**	**1.2000e-004**	**0.0000**	**1.5566**	**1.5566**	**7.0000e-005**	**0.0000**	**1.5584**

3.3 Grading - 2018

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					1.4000e-004	0.0000	1.4000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.4918	0.2831	6.0000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	54.5112	54.5112	0.0170	0.0000	54.9355
Total	**0.0387**	**0.4918**	**0.2831**	**6.0000e-004**	**1.4000e-004**	**0.0190**	**0.0191**	**1.0000e-005**	**0.0175**	**0.0175**	**0.0000**	**54.5112**	**54.5112**	**0.0170**	**0.0000**	**54.9355**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	1.0600e-003	0.0109	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.4892	2.4892	7.0000e-005	0.0000	2.4910
Total	**1.3800e-003**	**1.0600e-003**	**0.0109**	**3.0000e-005**	**2.7300e-003**	**2.0000e-005**	**2.7500e-003**	**7.3000e-004**	**2.0000e-005**	**7.4000e-004**	**0.0000**	**2.4892**	**2.4892**	**7.0000e-005**	**0.0000**	**2.4910**

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					1.4000e-004	0.0000	1.4000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0387	0.4918	0.2831	6.0000e-004		0.0190	0.0190		0.0175	0.0175	0.0000	54.5112	54.5112	0.0170	0.0000	54.9354
Total	**0.0387**	**0.4918**	**0.2831**	**6.0000e-004**	**1.4000e-004**	**0.0190**	**0.0191**	**1.0000e-005**	**0.0175**	**0.0175**	**0.0000**	**54.5112**	**54.5112**	**0.0170**	**0.0000**	**54.9354**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3800e-003	1.0600e-003	0.0109	3.0000e-005	2.7300e-003	2.0000e-005	2.7500e-003	7.3000e-004	2.0000e-005	7.4000e-004	0.0000	2.4892	2.4892	7.0000e-005	0.0000	2.4910
Total	**1.3800e-003**	**1.0600e-003**	**0.0109**	**3.0000e-005**	**2.7300e-003**	**2.0000e-005**	**2.7500e-003**	**7.3000e-004**	**2.0000e-005**	**7.4000e-004**	**0.0000**	**2.4892**	**2.4892**	**7.0000e-005**	**0.0000**	**2.4910**

3.4 Paving - 2018

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	0.0390	0.3393	0.3209	5.4000e-004		0.0197	0.0197		0.0191	0.0191	0.0000	46.7239	46.7239	8.6200e-003	0.0000	46.9393
Paving	3.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0394**	**0.3393**	**0.3209**	**5.4000e-004**		**0.0197**	**0.0197**		**0.0191**	**0.0191**	**0.0000**	**46.7239**	**46.7239**	**8.6200e-003**	**0.0000**	**46.9393**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9200e-003	0.0689	0.0188	1.5000e-004	3.8700e-003	6.2000e-004	4.4900e-003	1.1200e-003	6.0000e-004	1.7200e-003	0.0000	14.7798	14.7798	6.8000e-004	0.0000	14.7966
Worker	0.0112	9.2300e-003	0.0917	2.5000e-004	0.0253	1.6000e-004	0.0254	6.7100e-003	1.5000e-004	6.8600e-003	0.0000	22.7348	22.7348	6.5000e-004	0.0000	22.7510
Total	**0.0141**	**0.0782**	**0.1105**	**4.0000e-004**	**0.0291**	**7.8000e-004**	**0.0299**	**7.8300e-003**	**7.5000e-004**	**8.5800e-003**	**0.0000**	**37.5145**	**37.5145**	**1.3300e-003**	**0.0000**	**37.5476**

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	0.0390	0.3393	0.3209	5.4000e-004		0.0197	0.0197		0.0191	0.0191	0.0000	46.7239	46.7239	8.6200e-003	0.0000	46.9393
Paving	3.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0394**	**0.3393**	**0.3209**	**5.4000e-004**		**0.0197**	**0.0197**		**0.0191**	**0.0191**	**0.0000**	**46.7239**	**46.7239**	**8.6200e-003**	**0.0000**	**46.9393**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9200e-003	0.0689	0.0188	1.5000e-004	3.8700e-003	6.2000e-004	4.4900e-003	1.1200e-003	6.0000e-004	1.7200e-003	0.0000	14.7798	14.7798	6.8000e-004	0.0000	14.7966
Worker	0.0112	9.2300e-003	0.0917	2.5000e-004	0.0253	1.6000e-004	0.0254	6.7100e-003	1.5000e-004	6.8600e-003	0.0000	22.7348	22.7348	6.5000e-004	0.0000	22.7510
Total	**0.0141**	**0.0782**	**0.1105**	**4.0000e-004**	**0.0291**	**7.8000e-004**	**0.0299**	**7.8300e-003**	**7.5000e-004**	**8.5800e-003**	**0.0000**	**37.5145**	**37.5145**	**1.3300e-003**	**0.0000**	**37.5476**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

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

Mitigated

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.5000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Unmitigated	7.5000e-004	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	**7.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	7.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	**7.5000e-004**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation