



PLANNING & COMMUNITY ENVIRONMENT

CITY OF
PALO
ALTO250 Hamilton Avenue, 5th Floor
Palo Alto, CA 94301
650.329.2441

ADDENDUM TO THE 2015 ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF PALO ALTO RECYCLED WATER PROJECT

Date: 9/13/2019

Project Name: City of Palo Alto Recycled Water Project

Project SCH #: 2011062037

Project Location: 2501 Embarcadero Way, Palo Alto, CA 94303

Applicant: City of Palo Alto Utilities

Owner: City of Palo Alto

Through adoption of Resolutions 9548 and 9549, the City of Palo Alto City Council (hereinafter, City) acting as lead agency, certified the Environmental Impact Report (EIR) and modified the City's Long-Range Facilities Plan for the Regional Water Quality Control Plant (RWQCP) to include implementation of the City of Palo Alto Recycled Water Project (hereinafter, Project). The Notice of Determination for the Project was filed on October 1, 2015.

The approved Project includes expansion of the regional recycled water system to deliver recycled water produced by the City's RWQCP to customers in the City, including Alta Mesa Memorial Park, Stanford Research Park, and others. The Project includes about 10 miles of pipeline (backbone, lateral, and connecting pipelines) and two pump stations (one at the RWQCP at 2501 Embarcadero Way in Palo Alto, and another at Mayfield Soccer Fields, along the pipeline alignment). The Project would also include construction of 0.3 miles of pipeline to connect to the RWQCP and to the existing Mountain View recycled water pipeline. The Project would initially provide approximately 900 acre-feet per year of recycled water for irrigation.

The previously adopted EIR (2015 EIR) included several options to ensure that salt levels in recycled water were suitable for salt-sensitive plant species in the Project area. The Palo Alto City Council adopted a goal of supplying recycled water with a total dissolved solids¹ (TDS) level of no more than 600 mg/l TDS. Mitigation options included treating recycled water to reduce salinity before application of recycled water. The City has decided to construct an advanced water purification system (AWPS) to remove salt from recycled water. The exact location and details of the AWPS design had not been developed at the time that the EIR was prepared. The City has now completed preliminary design (MNS Engineers, Inc. 2017) for a 1 to 2-million-gallon-per-day (MGD) AWPS to be located at the RWQCP. The new AWPS would be located on a 1.5-acre site at the RWQCP that is zoned Public Facilities with a Site and Design Overlay (PF[D]). Figure 1 shows the location of the AWPS site within the RWQCP (including a staging area that is

¹ Total dissolved solids (TDS) is a measure of the salinity of water.

used on an ongoing basis for a variety of construction projects that are occurring at the RWQCP and Figure 2 shows the proposed improvements at the AWPS site.

The AWPS would initially provide 1.125 MGD of advanced treated water, known as permeate, with an option to expand production to 2.25 MGD. The permeate from the AWPS would be blended at approximately a one-to-one ratio with tertiary-treated recycled water from the RWQCP to produce lower salinity recycled water to serve customers. The AWPS includes microfiltration or ultrafiltration followed by reverse osmosis (RO), chemical dosing equipment, and ancillary systems. The preliminary design includes scalability of the purification system to expand from Phase 1 – 1.125-MGD AWPS to Phase 2 – 2.25-MGD AWPS. A decarbonator is provided after RO treatment; decarbonation is a treatment step to remove carbon dioxide from the treated water, which reduces the acidity of the permeate to reduce its corrosivity. Phase 2 would involve adding additional equipment at the same site where the Phase 1 facilities would be constructed.

As shown in Figure 2, the AWPS would be constructed on a concrete slab with canopies over equipment; site improvements for Phase I and Phase 2 would include:

- Construction of a 0.75-million-gallon (MG) RO permeate storage tank, 73 feet in diameter and 30 feet high
- Foundation for the AWPS equipment
- Canopies over the filtration and RO equipment
- Chemical storage area
- Relocation of the existing biofilter
- Utility relocations
- Yard piping
- Blending facilities for permeate and tertiary-treated recycled water
- Site grading and drainage
- Landscaping and irrigation

As part of site preparation, 39 trees would be removed. The removed trees would be replaced on site in accordance with the Palo Alto Municipal Code pursuant to the tree replacement formula outlined in the City's tree technical manual, which is incorporated by reference as part of Title 8 of the Municipal Code.

The Project would also require new electrical service from City of Palo Alto Utilities with service being extended from Embarcadero Road. The Project would not include an emergency generator. Light-emitting diode (LED) lighting would be provided outside the AWPS at a level no higher than street lighting, as well as under the canopy structure. Additionally, piping to a future ultraviolet/advanced oxidation process facility to the southeast of the RWQCP can be accommodated in the event potable reuse of the treated water is implemented.

Table 1 lists equipment that would be included in the AWPS facility and enumerates equipment for both Phase 1 and Phase 2.

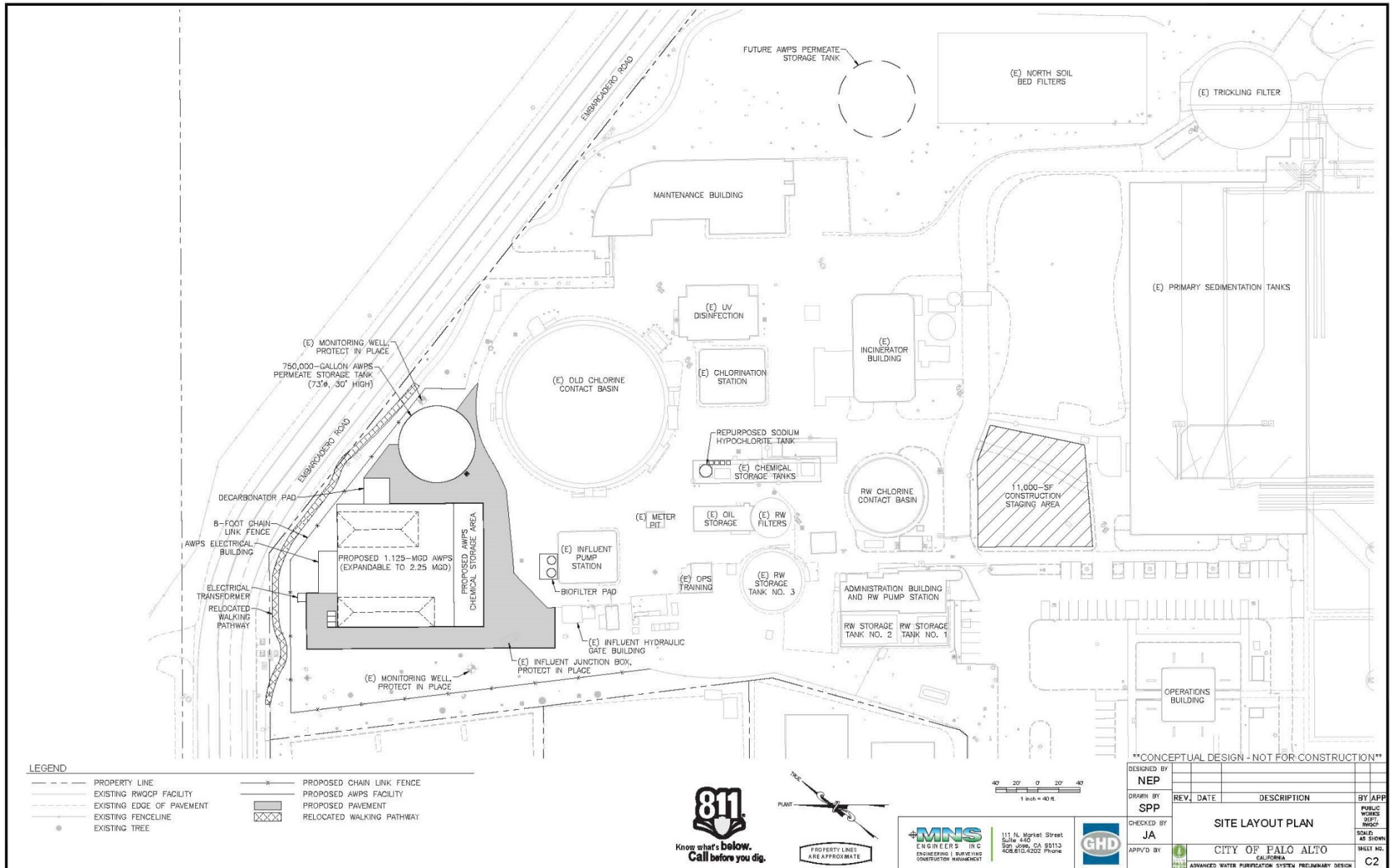


Figure 1: Location of AWPS at RWQCP

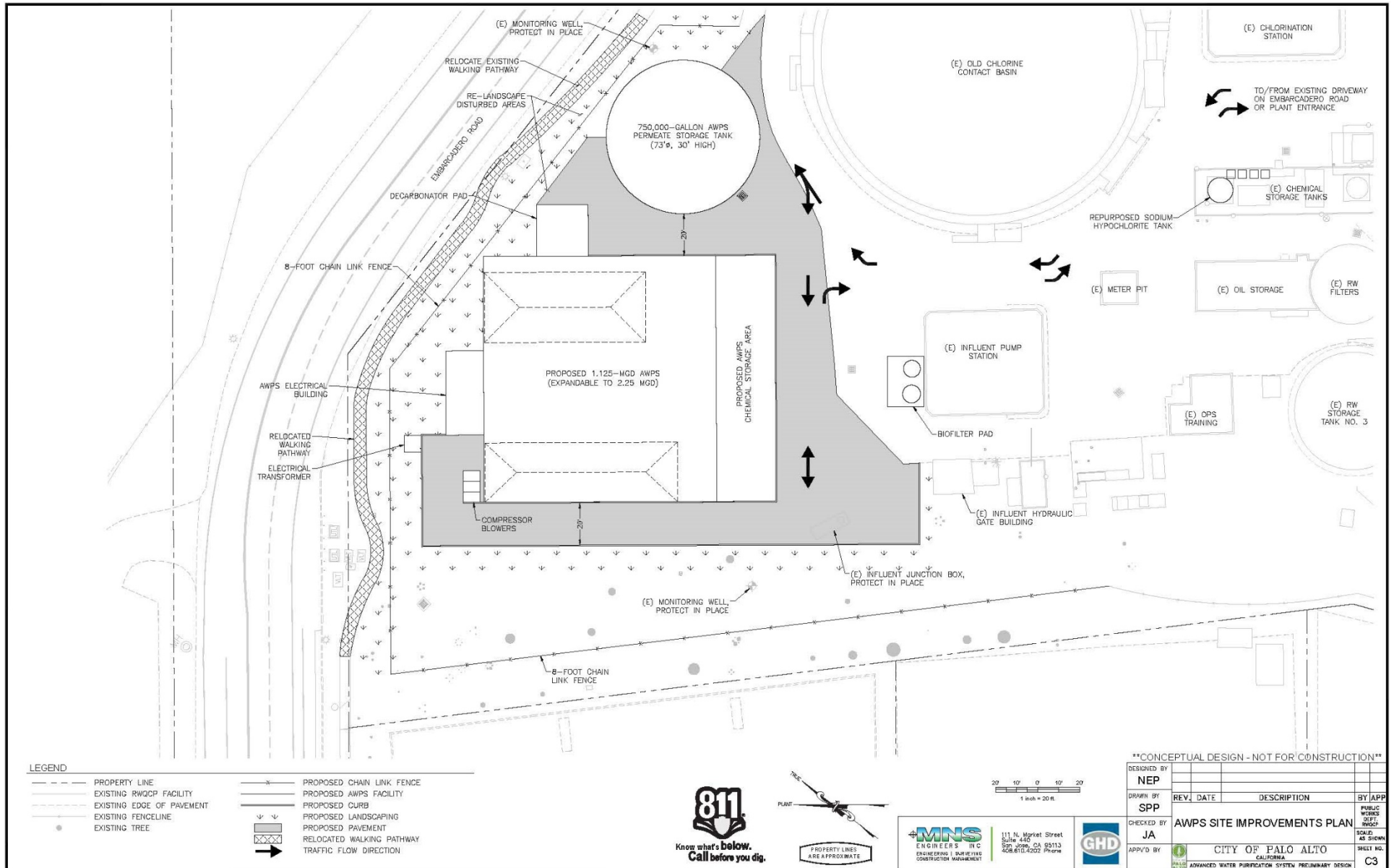


Figure 2: AWPS Site Improvements Plan

Table 1: Major AWPS Equipment for Phase 1 and Phase 2

| Equipment Description | Phase 1 | Additional Equipment for Phase 2 | Final | Size/Capacity |
|---|----------------------------------|---|----------------------------------|----------------------------------|
| Microfiltration Feed Pumps | 2 Duty, 1 Standby | 2 Duty | 4 Duty, 1 Standby | 30 hp (each) |
| Backwash Pumps | 1 Duty, 1 Standby | 0 | 1 Duty, 1 Standby | 30 hp (each) |
| Microfiltration Backwash/Filtrate Pumps to RO | 2 Duty, 1 Standby | 2 Duty | 4 Duty, 1 Standby | 25 hp (each) |
| Backwash Chlorination Feed System | 2 Pumps, 1 Storage Tank | 1 Pump | 3 Pumps, 1 Storage Tank | 0.17 hp (each) 1,000-gal Tank |
| Backwash Citric Acid Feed System | 2 Pumps, 1 Storage Tank | 1 Pump | 3 Pumps, 1 Storage Tank | 0.17 hp (each) 750-gal Tank |
| Backwash Caustic Feed System | 2 Pumps, 1 Storage Tank | 1 Pump | 3 Pumps, 1 Storage Tank | 0.17 hp (each) 500-gal Tank |
| Coagulant Feed System | 2 Pumps, 1 Storage Tank | 0 | 2 Pumps, 1 Storage Tank | 0.17 hp(each) 1,000-gal Tank |
| Backwashable 150-micron Automatic Filter | 1 Duty, 1 Standby | 1 Duty | 2 Duty, 1 Standby | 1,200 GPM |
| Microfiltration Skid with Instrumentation | 3 Duty | 2 Duty | 5 Duty | |
| Microfiltration Filtrate Tank to RO Unit | 1 Tank | 0 | 1 Tank | 12 ft x 36 ft H |
| Clean-in-Place System | 2 Pumps, 1 Chemical Feed Tank | 0 | 2 Pumps, 1 Chemical Feed Tank | 15 hp (each) 1,000-gal Tank |
| Air Compressor with Air Storage Tank | 1 Duty, 1 Standby | 0 | 1 Duty, 1 Standby | 10 hp (each) |
| Decarbonator Tower/Clearwell | 1 Duty | 1 | 2 Duty | |
| Air Blower with Accessories | 1 Duty, 1 Standby | 1 | 2 Duty, 1 Standby | 20 hp (each) |
| Cartridge Filters, Pretreatment | 2 | 2 | 4 | 460 GPM (each) |
| RO Feed/Booster Pumps | 2 Duty, 1 Standby | 2 Duty | 4 Duty, 1 Standby | 40 hp (each) |
| RO Skids with Instrumentation and Panels | 2 Duty | 2 Duty | 4 | |
| RO High Pressure Pumps | 2 Duty | 2 Duty | 4 Duty | 40 hp(each) |
| Second/Third Stage RO Booster pumps | 2 Duty | 2 Duty | 4 Duty | 5 hp(each) |
| Permeate Blending | 1 | 0 | 1 | |
| Clean-in-Place Cleaning for RO | 2 Pumps, 1 Chemical Feed Tank | 0 | 2 Pumps, 1 Chemical Feed Tank | 30 hp (each) 1,500-gal Tank |
| Sodium Bisulfite Dosing System | 2 Pumps, 2 Chemical Tote | 1 Pump | 3 Pumps, 2 Chem Tote | 60 GPD (each) 300 gal (each) |
| Acid Dosing System | 2 Pumps, 1 Storage Tank | 1 Pump | 3 Pumps, 1 Storage Tank | 6 GPH (each) 6,000-gal Tank |
| Antiscalant Dosing System | 2 Pumps, 2 Chem Totes | 1 Pump | 3 Pumps, 2 Chem Totes | 24 GPD (each) 300 gal (each) |
| Sodium Hypochlorite Dosing System | 2 Pumps, 1 Storage Tank | 1 Pump | 3 Pumps, 1 Storage Tank | 48 GPD (each) 1,000 gal |

The AWPS process requires use of a variety of treatment chemicals, which would need to be stored on site. Table 2 lists the chemical storage tanks that would be included in the AWPS. Tanks, other than the repurposed sodium hypochlorite tank, would be located in the chemical storage area shown on Figure 2.

Table 2: Chemical Storage for Phase 1 and Phase 2

| Chemical | Concentration | Material | Nominal Capacity (gal) | No. of Tanks | Days of Storage | |
|---------------------------------|---------------|----------|------------------------|--------------|-----------------|---------|
| | | | | | Phase 1 | Phase 2 |
| Ferric chloride | 40% | HDPE/FRP | 1,000 | 1 | 90 | 45 |
| Ammonium hydroxide ¹ | 20% | HDPE/FRP | 1,000 | 1 | 70 | 35 |
| Sulfuric acid | 98% | SS | 3,000 | 1 | 60 | 30 |
| Antiscalant | 100% | HDPE/FRP | 600 | 2 totes | 60 | 30 |
| Sodium hydroxide ² | 25% | HDPE/FRP | 500 | 1 | 120 | 60 |
| Sodium bisulfite | 40% | HDPE/FRP | 600 | 2 totes | 60 | 30 |
| Sodium hypochlorite | 12.5% | FRP | 10,000 ³ | 1 | 200 | 100 |
| Citric acid | 50% | HDPE/FRP | 750 | 1 | 80 | 40 |

Abbreviations: HDPE=High Density Polyethylene; FRP=Fiber-Reinforced Plastic; SS=Stainless Steel

¹Also known as aqueous ammonia

²Also known as caustic soda

³Existing reused sodium hypochlorite tank

The Project is expected to be constructed using a design-bid-build process (though a design-build process has also been considered), with the active construction period expected to last 12 to 18 months (MNS Engineers, Inc. 2017). The City has not yet determined when construction would begin, but for purposes of analysis it has been assumed that construction would start no earlier than June 2020, and that construction of the AWPS would not overlap with construction of other elements of the Recycled Water Project (i.e. pipelines and pump stations). Construction hours would be consistent with the City of Palo Alto Noise Ordinance (Palo Alto Municipal Code Chapter 9.10), which limits construction to between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday, and 9:00 a.m. and 6:00 p.m. on Saturday. Construction activities would be completed in accordance with the Mitigation Monitoring and Reporting Program (MMRP) that has been adopted for the Project. Relevant measures include implementation of Best Management Practices (BMPs) for erosion control during construction and measures to minimize emissions and generation of dust during construction activities.

It is envisioned the AWPS normal operating mode would be continuous, with the filtration and RO system running 24 hours a day, seven days a week, with planned shutdowns for maintenance activities. The filtration and RO systems would have multiple treatment trains (a train is a series of treatment processes), allowing individual trains to be taken off-line for cleaning and maintenance while the balance of trains remain in operation and continue production. During extended periods of reduced demand in winter months, the overall production capacity of the AWPS could be reduced by taking RO trains out of service (MNS Engineers, Inc. 2017).

The purpose of this addendum is to clarify and amplify the information in the adopted EIR to support and document the conclusion that no new or more significant impacts or other conditions described in Section 15162 of the CEQA Guidelines would occur as a result of implementation of the AWPS. Analysis assumes full buildout of a 2.25-MGD AWPS.

Attachment A, EIR Addendum No. 1, includes an analysis of the potential impacts from the applicant’s proposed modification to the Project. The California Environmental Quality Act (CEQA) establishes the type of environmental document required when changes to a project occur or new information arises after an Environmental Impact Report (EIR) is certified. An addendum to a certified EIR shall be prepared if only minor technical changes or additions are necessary (CEQA Guidelines §15164).

In addition, pursuant to CEQA Guidelines §15162, preparation of an Addendum to an EIR is appropriate unless subsequent changes are proposed in the project, physical circumstances have changed on the subject property, or new information of substantial importance becomes available and this would result in new significant impacts or a substantial increase in the severity of previously identified significant impacts.

The addendum need not be circulated for public review (CEQA Guidelines §15164[c]); however, an addendum is to be considered by the decision maker prior to making a decision on the project (CEQA Guidelines §15164[d]).

This EIR Addendum demonstrates that the environmental analysis, impacts, and mitigation requirements identified in the certified EIR for the Project remain substantively unchanged and supports the finding that the proposed changes to the Project do not result in new or more significant impacts than those identified in the previously certified EIR.

Therefore, the City has decided not to prepare a Subsequent EIR pursuant to CEQA Guidelines §15162. As evidenced below, because none of the conditions outlined in CEQA Guidelines §15162 are present here, the City has prepared this EIR Addendum to document changes to the certified EIR in accordance with CEQA Guidelines §15164.

| | | |
|--------------|--|-----------|
| Prepared by: | DocuSigned by: <i>Jodie Gerhardt</i> <small>94A2CB00C4C1464...</small> | 9/13/2019 |
| | | Date |

ATTACHMENT A: EIR ADDENDUM NO. 1

Based on the evaluation presented in Table 1, it was determined that most impacts would be similar or identical to those identified in the EIR. Analysis of the proposed modification to the approved Project therefore focuses on the following resources where potential changes in impacts were identified to determine if any new or more severe significant environmental impacts would result:

- Aesthetics
- Air Quality
- Biological Resources
- Hazardous Materials
- Hydrology and Water Quality
- Noise

As summarized in Table 1 below, the proposed modification would not have a significant effect on the remaining environmental resources assessed in the certified EIR and are not otherwise discussed further.

Table 1: Summary of Resources Not Discussed Further

| Resource | Summary |
|--|---|
| Agricultural and Forest Resources | As noted in the EIR the Project would have no impact on agricultural or forest resources. There would be no change to this conclusion as a result of the proposed modification. |
| Cultural and Paleontological Resources | A previous cultural resources study for the entire RWQCP identified no cultural resources at the Project site (WSA 2015). A records search for the RWQCP indicated that there were no previously recorded resources in the project area or within ¼-mile of the project area. A survey of the site confirmed this. While there is a possibility that previously undiscovered resources could be encountered during construction, the proposed Project would be required to comply with all mitigation measures outlined in the adopted MMRP for the protection of cultural and paleontological resources, as applicable. With incorporation of the existing mitigation, impacts to cultural and paleontological resources would remain less than significant. |
| Tribal Cultural Resources | The potential for implementation of the Recycled Water Project to affect tribal cultural resources was not evaluated in the 2015 EIR because this topic was not required to be considered under CEQA at the time that the EIR was prepared. It is assumed that any cultural resources in the Project area have the potential to be tribal cultural resources, but as noted in the evaluation of cultural resources, previous studies have not identified cultural resources within the RWQCP. The mitigation measures outlined in the MMRP for the Project would also protect tribal cultural resources, in the event that previously unidentified resources were encountered during construction. |

Table 1: Summary of Resources Not Discussed Further

| Resource | Summary |
|--------------------------------|---|
| Energy | <p>The EIR for the project discussed energy as part of the assessment of commitment of resources and concluded that commitment of energy resources for operation of recycled water facilities would offset the energy requirements to deliver the same amount of water from outside sources. However, the potential for conflicts with a state or local plan for renewable energy or energy efficiency was not evaluated because this topic was not required to be considered under CEQA at the time that the EIR was prepared. Energy efficiency during construction is necessary to comply with existing air quality mitigation measures, which impose restrictions on idling and mandate that equipment be maintained and tuned to minimize fuel usage and air emissions. Operation of the AWPS would require energy, but this would not conflict with any plans for renewable energy or energy efficiency. Power would be supplied by City of Palo Alto Utilities, which provides 100 percent carbon neutral electricity supply through its long-term renewable resource and hydroelectric contracts. The Project would not have significant adverse impacts associated with wasteful, inefficient or unnecessary consumption of energy and would not conflict with renewable energy plans.</p> |
| Geology and Soils | <p>The AWPS would be designed and constructed in compliance with City of Palo Alto Standard Project Requirements, as described in the EIR for the Project. Standard requirements included preparation of a geologic report to identify any seismic risks and design of structures in accordance with the report's engineering recommendations to address identified risks. Therefore, no new or more significant impacts to geology and soils would occur as a result of the proposed modifications.</p> |
| Greenhouse Gas (GHG) Emissions | <p>As discussed in the EIR for the project, GHG emissions from construction and operation are expected to be less than significant. AWPS operational GHG emissions are expected to be negligible because the electricity used at the AWPS would be supplied by City of Palo Alto Utilities, which provides 100 percent carbon neutral electricity supply. GHG emissions from the proposed decarbonator were estimated to be in the range of 50 metric tons CO₂e/year, far below the Bay Area Air Quality Management District (BAAQMD) threshold of 10,000 metric tons CO₂e/year for stationary sources. Construction of both Phases of the AWPS was conservatively assumed to occur over a 12- to 18-month period, split over two calendar years, with GHG emissions estimated at 134 to 232 metric tons of CO₂e/year in 2021 and 2020, respectively (see Attachment B – CalEEMod Output Sheets). Because construction is expected to be completed in two phases, the actual GHG emissions associated with phased construction would be spread out over a longer period, so annual emissions would be lower, though total emissions would be the same. Analysis thus considers emissions from total build-out. The BAAQMD does not recommend a construction emissions threshold for GHGs, but emissions from construction of the AWPS would be similar to emissions associated with construction of the pipeline for the Project. The temporary GHG emissions would still be relatively small scale and thus no new or more significant impacts are expected to occur as a result of the proposed modifications.</p> |

Table 1: Summary of Resources Not Discussed Further

| Resource | Summary |
|----------------------------|--|
| Land Use and Planning | As noted in the EIR, the Project would have less than significant impact on land use, and because the AWPS would be located within the existing RWQCP site, there would be no changes in land use associated with the proposed modification. The AWPS would not divide an established community and is not in conflict with the land use or zoning designation for the site. There would be no new or more significant land use impacts as a result of the modifications. |
| Mineral Resources | As noted in the EIR, the Project would have no impact on mineral resources. There would be no change to this conclusion as a result of the proposed modification. |
| Population and Housing | As discussed in the EIR, implementation of the Project would not result in the displacement of housing or people. This conclusion remains unaffected by the proposed modification. The Project would improve water supply management and reliability and protect San Francisco Bay by reducing the discharge of wastewater, but would not involve construction of new housing, create imbalance between employed residents and jobs or exceed regional or local population projections. The proposed AWPS would only improve the quality of recycled water and would not change any of these conclusions. Therefore, impacts to population and housing would remain less than significant without the incorporation of mitigation. |
| Public Services | As discussed in the EIR, implementation of the Project would not result in the construction or expansion of additional fire, police, or other public facilities, schools, or parks. The construction of the AWPS would not result in any additional requirements for public services. Therefore, this conclusion remains unaffected by the proposed modification. |
| Recreation | As discussed in the EIR, the Project would not change existing demands on recreational facilities and construction of the AWPS would not result in any additional demand for recreational facilities. Construction of the AWPS would require relocation of the path that parallels Embarcadero Road, which would entail some short-term disruption, but the relocation would not affect long-term use of the path. The proposed modifications would not result in a new or more significant impact to recreational resources beyond what was assessed in the EIR. |
| Traffic and Transportation | As discussed in the EIR, the primary impact of the Project on traffic and transportation is the temporary disruption of local roadways that would occur during construction of the pipelines required to deliver recycled water to users. AWPS construction would occur entirely within the existing RWQCP and would not disrupt local roadways. The potential for the Project to conflict with CEQA Guidelines §15064.3(b), which requires evaluation of vehicle miles traveled (VMT) was not evaluated in the EIR because this topic was not required to be considered under CEQA when the EIR was prepared. However, the VMT criterion is not applicable to the Project because it pertains specifically to commercial and residential land use and transportation projects, and the Project would not generate additional VMT. Therefore, there would be no new or more significant impacts to traffic and transportation beyond what was assessed in the EIR. |

Table 1: Summary of Resources Not Discussed Further

| Resource | Summary |
|-------------------------------|--|
| Utilities and Service Systems | As discussed in the EIR, the Project would not require new water supply, wastewater or storm drain facilities, and would generate limited solid waste during construction. Other than additional electrical supply, which is discussed above under energy, the AWPS would not have any additional demands on utilities or services, and construction would not substantively increase the amount of solid waste that would be generated. Therefore, there would be no new impacts to Utilities and Service Systems as a result of the proposed modifications beyond what was assessed in the EIR. |
| Wildfire | The potential for the Project to interfere with an emergency plan or expose people or structures to wildfire risk was evaluated in the EIR in the Hazards and Hazardous Materials discussion and found not to be significant, and because the AWPS is located completely within the RWQCP this conclusion would not change. However, the potential to exacerbate wildfire risk was not evaluated because this topic was not required to be considered under CEQA at the time that the EIR was prepared. The RWQCP is not in or near a state responsibility area or in land classified as a very high fire hazard severity zone, so criteria regarding exacerbation of fire risk are not applicable to the Project. Therefore, there would be no new impacts associated with wildfire risk as a result of the proposed modifications beyond what was assessed in the EIR. |

Aesthetics

The EIR evaluated the construction of a pump station at the RWQCP site but did not specifically evaluate the construction of the AWPS at the RWQCP site. The EIR evaluated the potential for the Project to have significant aesthetic impacts and concluded that new structures and lighting within the RWQCP were in keeping with the existing industrial character of the site. Visual impacts were found to be less than significant.

Similar to the pump station that was discussed in the EIR, the AWPS would be constructed within the RWQCP, which is located adjacent to a light industrial area with offices and a storage facility to the southwest, and the Palo Alto Airport immediately to the north. The proposed AWPS site is on the northern portion of the RWQCP property, adjacent to Embarcadero Road. A pedestrian path parallels the south side of the road and provides access to the Baylands Nature Preserve. There are existing street lights on both sides of this section of Embarcadero Road.

Construction would require removal of about 39 trees that are currently growing at the northern end of the property in the area adjacent to Embarcadero Road. The path on the south side of Embarcadero Road would be reconstructed to provide additional buffer between the path and the AWPS structure. To visually screen the AWPS facility from the pedestrian path and Embarcadero Road to the north, vegetation and landscaping would be installed. Vegetation would also be planted between the office buildings and the AWPS to provide visual screening.

To compensate for trees that would have to be removed for construction, as part of the proposed landscaping, trees would be replanted on site in compliance with the City's tree technical manual. As described in the EIR, Architectural Review and/or Site and Design review is required for all exterior modifications to facilities, which include the AWPS and landscaping. The individual components require review by the City's Architectural Review Board (ARB) for

architectural review, as well as review by the planning commission and approval from the City Council for site and design review prior to project implementation.

Views into the site from adjacent areas, including the pedestrian path on the south side of Embarcadero Road, would be temporarily disrupted during construction, but once construction is complete, and landscaping is established the visual character of the RWQCP would not be substantially changed. Light-emitting diode (LED) lighting would be installed outside the AWPS and under the canopy structure. Lighting levels would be no higher than existing street lighting and would not change lighting conditions at the RWQCP. The proposed modifications to the Project would thus not substantially degrade the existing visual character of the site or surroundings, would not have an adverse effect on a public view, would not violate City policies regarding visual resources, and would not create a new source of substantial light or glare.

Therefore, impacts as a result of the proposed modifications would not result in a new or more significant visual impact as compared to what was assessed in the EIR. Impacts would remain less than significant with the incorporation of Mitigation Measure AES-1: Restoration to Pre-construction Conditions, which is included in the MMRP.

Air Quality

The EIR contains an explanation of the definition of criteria pollutants, ambient air conditions, and the current attainment status in the San Francisco Bay Area Air Basin. Since the adoption of the EIR, the National 8-hour ozone standard has been lowered from 0.075 ppm to 0.070 ppm and the Bay Area's attainment status is now "nonattainment." The National annual PM_{2.5} standard has been lowered from 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 12 $\mu\text{g}/\text{m}^3$ and the Bay Area's attainment status is now "unclassified/attainment."

The EIR estimated the quantity of contaminants produced during various phases of project construction, as well as during project operation, using standard air emissions modeling software and project-specific information. Calculated estimates were compared to BAAQMD mass daily thresholds and Federal General Conformity Rule thresholds. The EIR found that, with the exception of oxides of nitrogen (NO_x), emissions of criteria pollutants were less than significant. To reduce NO_x emissions to a less than significant level, the EIR included Mitigation Measure AIR-1: Two Crew Construction of Proposed Pipeline and Pump Station Restrictions, which requires phasing of construction so as to limit NO_x emissions. All other air quality impacts were determined to be less than significant.

Construction and operation of the AWPS would result in emissions of air pollutants, including dust and criteria pollutants. Construction emissions would be associated with the use of off-road construction equipment, worker trips to the job site, hauling trips to remove debris and excavated material from the site, and vendor trips to deliver building materials to the site. Construction of Phase 1 would commence in June 2020 and is anticipated to last approximately 12 to 18 months. For the purposes of this air quality analysis, it was assumed construction would last 12 months in order to model the worst-case maximum daily pollutants scenario². The major phases of construction, during which air pollution emissions would occur, were modeled as: demolition, site preparation, grading, construction of the structures, installation of

² Note that if the construction period is longer it would result in essentially the same emissions being spread out over a longer time period, which would result in lower daily emissions.

the piping, paving, and finally architectural coating, with each phase occurring sequentially (i.e., not overlapping). It was assumed that construction would incorporate BAAQMD standard dust control measures, such as watering exposed surfaces, minimizing vehicle idling time, and reducing vehicle speeds to slower than 15 mph on unpaved roads. Once construction is complete, operation of the AWPS would result in emissions of air pollutants from electricity use, vehicle maintenance trips, and other maintenance activities such as landscaping and solid waste disposal. It was assumed that outdoor water use would remain unchanged from existing conditions, as all trees would be replanted on site.

Emissions related to short-term construction activities and long-term operations for build-out of the 2.25 MGD AWPS were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, and project-specific information found in the Preliminary/Conceptual Design Report (MNS Engineers, Inc. 2017). Calculated emissions are compared to the significance thresholds for reactive organic gases (ROG), oxides of nitrogen (NO_x), particulate matter with a diameter of 10 micrometers or less (PM₁₀), particulate matter with a diameter of 2.5 micrometers or less (PM_{2.5}), and carbon monoxide (CO). Thresholds are shown in Table 2.

Table 2: Air Quality Thresholds

| Criteria Air Pollutants and Precursors | BAAQMD Thresholds | | | General Conformity De Minimis Levels |
|---|-----------------------------------|--|--------------------------------------|--------------------------------------|
| | Construction-Related | Operational-Related | | |
| | Average Daily Emissions (lbs/day) | Average Daily Emissions (lbs/day) | Maximum Annual Emissions (tons/year) | Tons/year |
| ROG | 54 | 54 | 10 | 100 |
| NO _x | 54 | 54 | 10 | 100 |
| PM ₁₀ | 82 (exhaust) | 82 | 15 | 100 |
| PM _{2.5} | 54 (exhaust) | 54 | 10 | 100 |
| PM ₁₀ /PM _{2.5} (fugitive dust) | Best Management Practices | None | None | N/A |
| Local CO | None | 9.0 ppm (8-hour average), 20.0 ppm (1-hour average) | | 100 |

Notes: San Francisco Bay Area is designated Marginal – Nonattainment for the National 8-hour ozone (2015) standard. California is not in an “ozone transport region.”
Sources: U.S. EPA. 2017. *General Conformity De Minimis Tables*; BAAQMD 2017 *CEQA Air Quality Guidelines*.

The maximum daily construction emissions of NO_x, CO, PM₁₀ (exhaust), and PM_{2.5} (exhaust) would take place during site preparation and building construction activities. Maximum daily construction emissions of ROG would take place during architectural coating activities (see Attachment B – CalEEMod Output Sheets). Criteria pollutant emissions associated with AWPS construction are below applicable thresholds, as shown in Table 3 and Table 4, and do not represent a significant change to the overall emissions analyzed in the EIR.

The AWPS would be operated using electricity provided by City of Palo Alto Public Utilities. Criteria pollutants from power plants are permitted by local air districts and/or USEPA and are attributed to the power plants themselves, not individual projects or electricity users. Furthermore, air pollutant emissions from on-site treatment processes are not anticipated because the AWPS does not propose to combust natural gas. Vehicle trips for daily inspection

and maintenance would not generate new vehicle emissions because the project is located at the existing RWQCP site and no additional maintenance trips would be needed. Only occasional additional trips to the site to deliver treatment chemicals would be necessary to operate the AWPS.

Table 3: Maximum Daily Criteria Pollutant Emissions from AWPS Construction

| Emissions Source | Maximum Daily Construction Emissions (lbs/day) | | | | | | |
|---------------------------------|--|-----------------|-------------|-------------------------------|----------------------------|--------------------------------|-----------------------------|
| | ROG | NO _x | CO | PM ₁₀ (exhaust) | PM ₁₀ (dust) | PM _{2.5} (exhaust) | PM _{2.5} (dust) |
| On-site construction activities | 35.0 | 26.0 | 23.1 | 1.2 | 0.3 | 1.2 | 0.2 |
| Off-site construction trips | 0.3 | 2.9 | 2.2 | <0.1 | 0.6 | <0.1 | 0.2 |
| Total Maximum | 35.0 | 26.2 | 23.3 | 1.3 | 0.6 | 1.2 | 0.2 |
| <i>Threshold</i> | <i>54</i> | <i>54</i> | <i>None</i> | <i>82</i> | <i>BMPs</i> | <i>54</i> | <i>BMPs</i> |
| Significant? | No | No | No | No | No | No | No |

Note: Emissions shown in this table are the highest of on-site or off-site activities from any phase to represent a worst-case scenario; total maximum daily emissions may not be equal to the sum of maximum off-site and on-site because they may not occur during simultaneous construction phases. Emissions presented are from the unmitigated results (see Attachment B CalEEMod Output Sheets) except fugitive dust, which was modeled as “mitigated” in CalEEMod to account for standard dust control measures (BMPs).

Table 4: Annual Criteria Pollutant Emissions from AWPS Construction

| | Total Annual Emissions (tons/year) | | | | |
|---------------------------------|------------------------------------|-----------------|------------|------------------|-------------------|
| | ROG | NO _x | CO | PM ₁₀ | PM _{2.5} |
| Maximum Annual Emissions | 0.4 | 1.5 | 1.2 | 0.1 | 0.1 |
| De Minimis Threshold | 100 | 100 | 100 | 100 | 100 |
| <i>Significant?</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> | <i>No</i> |

Criteria air pollutant emissions from the AWPS construction and operation would not change the assessment of air quality presented in the EIR. All emissions would be below local thresholds; thus, it would not be necessary to limit daily construction crew sizes or activities as was required in EIR Mitigation Measure AIR-1. No new sensitive receptors would be impacted by emissions associated with the Project. The Project includes excavation activities and construction that would generate fugitive dust and other criteria pollutants. Construction contract provisions would require that work be conducted in accordance with BAAQMD standard dust control measures.

Therefore, impacts as a result of the proposed modifications would not result in a new or more significant impact to air quality as compared to what was assessed in the EIR. Impacts would remain less than significant with the incorporation of the standard air quality project requirements included in the MMRP.

Biological Resources

The EIR evaluated construction of a pump station at the RWQCP but did not consider the entire RWQCP site and did not specifically address construction at the site proposed for the AWPS. The EIR found that construction at the RWQCP would not interfere with wildlife movement or conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan. Because construction near sensitive habitats such as streams and marshland has the potential to affect sensitive species, the EIR included protection measures, which would reduce impacts to less than significant.

A Habitat Assessment Report was prepared for the AWPS site in March 2019 (Insignia Environmental 2019), and is included in Attachment C. The assessment found that there is no suitable habitat for federally or state listed species and the site contains no wetlands or other water features. The AWPS site does contain suitable bat roosting habitat and birds can nest on the trees that are present on the site.

Because there is no potential for sensitive species on the site and there are no wetlands or other sensitive natural communities on the site, the proposed modifications to the Project would not result in additional impacts to those resources. The AWPS site does provide habitat for bats and nesting birds, but impacts would be reduced to less than significant by implementation of mitigation measures identified in the EIR. Mitigation Measure BIO-8: Measure to Protect Nesting Birds requires preconstruction surveys of suitable habitat for active bird nests if construction occurs during nesting season (February 1 to September 1), and establishment of buffers if nests are found. Construction of the AWPS would require removal of 39 trees, and compliance with this measure would be accomplished by removing those trees outside of the nesting season and conducting a survey for nesting birds in the area adjacent to the construction site prior to any work that would be done during the nesting season. Mitigation Measure BIO-9: Bat Preconstruction Surveys and Mitigation Measure BIO-10: Bat Breeding Season Surveys would be implemented for the AWPS site. Similar to the measure to protect nesting birds, compliance with bat mitigation measures can be accomplished by removing trees outside of the bat breeding season (April through August) and conducting preconstruction surveys for work during the breeding season. Measures required in the MMRP would be implemented if breeding birds or bats are found adjacent to the construction area.

The AWPS also provides habitat to urban adapted wildlife such as gray fox. Gray foxes have previously used the RWQCP property, but the foxes may have been eradicated as a result of a distemper outbreak in 2016. The gray fox is not a sensitive species and there is ample habitat for foxes in the surrounding area, so impacts to possible fox habitat at the AWPS site are not considered significant. However, the RWQCP is committed to protecting gray foxes, and may conduct a pre-construction survey to determine if foxes are present at the RWQCP before construction occurs at the AWPS site. If foxes are found, conservation measures can be implemented, but are not required.

As noted in the Project description, the trees that must be removed for construction would be replaced on site in accordance with the City's tree technical manual, which would ensure that the Project is consistent with local policies protecting biological resources. As noted in the EIR, the Project area is not in an area covered by a Habitat Conservation Plan or Natural Community Conservation Plan.

Therefore, impacts as a result of the proposed modifications would not result in a new or more significant impact to biological resources as compared to what was assessed in the EIR. Impacts would remain less than significant with the incorporation of approved measures included in the MMRP.

Hazards or Hazardous Materials

As discussed in the EIR, construction would involve the use of limited quantities of hazardous materials such as gasoline, diesel fuel, hydraulic fluids and paint, but the Project includes standard project requirements to ensure that hazardous materials used during construction would be stored, handled and used in accordance with applicable laws. The EIR concluded that implementation of these requirements would reduce impacts related to hazards and hazardous materials to less than significant. The requirements would also apply to construction of the AWPS, and impacts would remain less than significant.

Operation of the AWPS would require use of chemicals, which are listed in Table 2. Of the chemicals listed, sodium hypochlorite is already used at the RWQCP, and citric acid and antiscalants (chemicals used to prevent deposition of materials that would clog RO membranes) are not considered to be hazardous materials. As required by California Health and Safety Code, Division 20, Chapter 6.95, §25500-25519 and California Code of Regulations, Title 19, Division 2, Chapter 4³, the City would amend the Hazardous Materials Business Plan for chemicals that are stored and used at the RWQCP to address the additional chemicals that would be required for operation of the AWPS. The plan would address routine use of chemicals and would include emergency response plans to address the possibility of accidental release of hazardous chemicals. With implementation of this plan impacts of routine use or accidental release of chemicals associated with the modified Project would be less than significant. The AWPS would not be within one-quarter mile of an existing school and is not located on a site that is on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Because this element of the Project does not include construction in roadways, construction of the AWPS does not have the potential to interfere with emergency response or emergency evaluation plans.

The project site is located directly adjacent to the Palo Alto Airport. According to the *Palo Alto Airport Comprehensive Land Use Plan (CLUP)*, the project site is located within the Turning Safety Zone but is outside the Inner Safety Zone and Runway Protection Zone as shown in the Airport Land Use Plan Figure 7 (Santa Clara County Airport Land Use Commission 2008). The CLUP states that above ground storage of fuel or other hazardous materials shall be prohibited in the Turning Safety Zone. However, the CLUP specifically states that the plan is not retroactive with respect to existing incompatible land uses and the RWQCP was an existing land use when the airport started operation. The RWQCP began operation at the existing site in July 1934. Construction of the airport at its current location did not begin until 1935 and the first Airport Master Plan was adopted in 1982. Although the RWQCP is an existing use, RWQCP staff would coordinate with the Airport Land Use Commission to ensure that adequate safety measures are

³ These regulations require that any facility that stores hazardous materials at or above State-defined thresholds submit Hazardous Materials Business Plans. The general thresholds are 55 gallons of a liquid, 200 cubic feet of a gas, and 500 pounds of a solid. Storage of treatment chemicals at the RWQCP already requires preparation of a Hazardous Materials Business Plan, which would be updated to reflect additional chemical usage at the AWPS.

in place for storage of chemicals at the AWPS. Operation of the project thus would not result in any safety hazards from a public airport. Impacts would be less than significant.

Therefore, impacts as a result of the proposed modifications would not result in a new or more significant impact related to hazards or hazardous material beyond what was assessed in the EIR.

Hydrology and Water Quality

The EIR evaluated hydrology and water quality impacts associated with project construction and operation and determined that the project would have no impacts associated with depletion of groundwater, alteration of drainage patterns, generation of runoff, flooding hazards, or impacts from seiche or tsunami. The potential to violate water quality standards or otherwise degrade water quality, including the potential for degradation of groundwater, was determined to be less than significant, and with implementation of BMPs to protect storm water quality impacts associated with erosion or siltation were also determined to be less than significant. The EIR evaluated the potential for elevated salinity in recycled water to affect redwood trees and other salt-sensitive species in the project area and included mitigation to reduce salinity so as to ensure impacts would be less than significant. The EIR concluded that with mitigation all impacts to hydrology and water quality would be less than significant.

The purpose of the AWPS is to improve the quality of recycled water by removing salts from the treated water. Construction and operation of the AWPS would occur entirely within the RWQCP. Construction would be completed in compliance with BMPs identified in the MMRP to protect water quality during construction. Santa Clara County Stormwater Pollution Control Requirements are anticipated to be met by directing all potentially contaminated stormwater to on-site storm drains, which drain to the RWQCP headworks.

Because the facility would be sited within the RWQCP, and construction and operation of facilities at the RWQCP were addressed in the approved EIR, construction of the AWPS would not change the conclusions in the EIR regarding impacts of constructing and operating facilities. The proposed modification would not substantially deplete groundwater supplies, interfere with existing drainage patterns in a way that would result in flooding, place housing or other structures in a 100-year flood hazard area, expose people or structures to flood hazards, result in stream bank instability or be subject to inundation from seiche, tsunami or mudflow.

Construction of the AWPS would result in a minor increase in impervious surface area at the RWQCP. Drainage improvements at the AWPS site would direct stormwater to appropriate drainage facilities at the RWQCP and stormwater facilities would be designed in accordance with City standards. Implementation of these design features would result in management of stormwater in manner that ensures that impacts of increased impervious surface would be less than significant.

Construction of the AWPS fulfills the City's commitment to minimize impacts of salinity of recycled water consistent with Mitigation Measure HYD-3d: Other Options to Protect Salt-Sensitive Plants. Specifically, the City would implement the third option listed in Measure HYD-3d: "Treat recycled water to reduce TDS prior to application". The AWPS would produce advanced treated water with a TDS of 50 mg/L or less, which when blended with tertiary

recycled water at a ratio of 1:1 would result in a recycled water supply with a TDS between 400 and 500 mg/L, well below the City's goal of 600 mg/L. Studies completed for the EIR indicated that "salinity hazard would be eliminated if TDS levels were maintained below 650 mg/L". The modifications would thus result in a beneficial impact to recycled water quality, providing suitable water quality for salt-sensitive plants and reducing the potential for impacts to groundwater, which were already determined to be less than significant.

Therefore the proposed project would not result in a new or more significant impact to hydrology and water quality beyond what was assessed in the EIR. Impacts would remain less than significant with the incorporation of approved measures included in the MMRP.

Noise

The EIR evaluated the construction of a pump station at the RWQCP site, but did not specifically evaluate the construction of the AWPS at the RWQCP site. The EIR evaluated the potential for the Project to have significant impacts to noise levels. The EIR concluded that with mitigation measures incorporated, the proposed Project would not expose people to or generate noise levels in excess of applicable standards established in the local general plan or noise ordinance. Impacts resulting from groundborne vibrations were found to be less than significant.

The construction and operation of the AWPS would not appreciably change the noise impact analysis conducted in the EIR. The active construction period for the AWPS is expected to last 12 to 18 months and would not overlap with construction of other elements at the site. Construction would be conducted in accordance with standard project requirements as outlined in the EIR, including limits to individual equipment noise levels, and adherence to construction hours (i.e., 8:00 a.m. to 6:00 p.m. on weekdays, and 9:00 a.m. to 6:00 p.m. on Saturdays). Construction would use auger cast piles (pile driving is not proposed), so the loudest construction noise levels are expected to be in the range of 85 to 90 dBA, which would comply with the City of Palo Alto Noise Ordinance Limits of 110 dBA at the property plane of the Project. The AWPS is located in a light industrial area, and the nearest sensitive receptors are residences on Daphne Way, about ½ mile from the project site. Because of the distance (noise attenuates at a rate of 6 dBA per doubling of distance [FTA 2018]), noise levels from construction would be attenuated to about 56 dBA, which is below the typical ambient noise level of 60 dBA. Construction standards would include provisions from Mitigation Measure NOI-1, which encompasses noise control measures to reduce construction noise. For example, equipment shall use the best available noise control techniques, and stationary noise-generating equipment shall be located as far as possible from businesses. No residential areas are present within 500 feet of the RWQCP facilities, therefore Mitigation Measure NOI-2 would not be applicable.

During operation, noise generated by the AWPS would be consistent with the ambient noise from other facilities already in operation at the site. Table 1 lists equipment that would be included in the AWPS facility and enumerates equipment for both Phase 1 and Phase 2. Operation of the AWPS would generate noise, primarily due to the operation of pumps. Based on operational noise from similar facilities, the operational noise is estimated to be up to 82 dBA at a distance of 50 feet from the pumps (SFPUC 2014). At a distance of ½ mile from the Project to the nearest sensitive receptors, operational noise levels would be 48 dBA. Operational noise would thus not be perceptible at the closest residence. Compliance with the

approved measures to control construction noise in the MMRP, as well as the Palo Alto Municipal Code and Noise Ordinance would ensure that impacts related to operational noise are less than significant.

Therefore, the proposed Project would not result in a new or more significant impact resulting from noise beyond what was assessed in the EIR. Impacts would remain less than significant with the incorporation of approved measures included in the MMRP.

Conclusion

Based on the information provided herein, the City has determined that the proposed modification to the approved Project would not result in new or more severe significant impacts, and that none of the conditions described in CEQA Guidelines §15162 have occurred. Therefore, CEQA Guidelines Sections 15162 and 15163 have not been triggered and neither a Subsequent EIR nor a Supplement to the previously certified EIR is required.

References

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

California Code of Regulations, Title 19, Division 2, Chapter 4

California Health and Safety Code, Division 20, Chapter 6.95, §25500-25519

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. September.

Insignia Environmental. 2019. *Advanced Water Treatment Facility Final Habitat Assessment Report*. March 25, 2019

MNS Engineers, Inc. 2017. *Advanced Water Purification System Preliminary/Conceptual Design Report*. December 15.

San Francisco Public Utilities Commission (SFPUC). 2014. *Notice of Preparation of an Environmental Impact Report with Initial Study. San Francisco Westside Recycled Water Project*, July 16, 2014.

Santa Clara County Airport Land Use Commission. 2008. *Comprehensive Land Use Plan Santa Clara County: Palo Alto Airport*. Prepared by Walter B. Windus, PE, Saratoga, CA. Available at https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_20081119_PAO_CLUP.pdf

US Environmental Protection Agency. 2017. *General Conformity De Minimis Tables*. August 4. Available at: <https://www.epa.gov/general-conformity/de-minimis-tables>

US Environmental Protection Agency. 2019. *Nonattainment Areas for Criteria Pollutants (Green Book)*. February 28. Available at: <https://www.epa.gov/green-book>

ATTACHMENT B: EIR CalEEMod Output

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

Palo Alto RWQCP AWPf
San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|-------|----------|-------------|--------------------|------------|
| Refrigerated Warehouse-No Rail | 30.00 | 1000sqft | 0.69 | 30,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|------------------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 64 |
| Climate Zone | 5 | | | Operational Year | 2021 |
| Utility Company | City of Palo Alto Public Utilities | | | | |
| CO2 Intensity (lb/MW hr) | 354.26 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

Project Characteristics -

Land Use -

Construction Phase - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment -

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Grading - According to PDR.

Demolition -

Trips and VMT - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Vehicle Trips - From PDR.

Energy Use - Table 8-7 of PDR.

Water And Wastewater - The project would not consume indoor water. Irrigation provided by the facility.

Construction Off-road Equipment Mitigation - Standard BAAQMD mitigation and clean vehicles.

Area Mitigation - ROG reduction for coatings.

| Table Name | Column Name | Default Value | New Value |
|-------------------------|---|---------------|-----------|
| tblAreaMitigation | UseLowVOCPaintNonresidentialExteriorValue | 250 | 150 |
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 5.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 3.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | | | |
|-------------------------|----------------|------------|--------------|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstructionPhase | NumDays | 5.00 | 20.00 |
| tblConstructionPhase | NumDays | 100.00 | 44.00 |
| tblConstructionPhase | NumDays | 10.00 | 14.00 |
| tblConstructionPhase | NumDays | 2.00 | 40.00 |
| tblConstructionPhase | NumDays | 5.00 | 15.00 |
| tblConstructionPhase | NumDays | 1.00 | 7.00 |
| tblConstructionPhase | NumDays | 100.00 | 90.00 |
| tblConstructionPhase | PhaseEndDate | 12/7/2020 | 5/5/2021 |
| tblConstructionPhase | PhaseEndDate | 11/23/2020 | 11/11/2020 |
| tblConstructionPhase | PhaseEndDate | 7/1/2020 | 7/7/2020 |
| tblConstructionPhase | PhaseEndDate | 7/6/2020 | 9/10/2020 |
| tblConstructionPhase | PhaseEndDate | 11/30/2020 | 4/7/2021 |
| tblConstructionPhase | PhaseEndDate | 7/2/2020 | 7/16/2020 |
| tblConstructionPhase | PhaseStartDate | 12/1/2020 | 4/8/2021 |
| tblConstructionPhase | PhaseStartDate | 7/7/2020 | 9/11/2020 |
| tblConstructionPhase | PhaseStartDate | 7/3/2020 | 7/17/2020 |
| tblConstructionPhase | PhaseStartDate | 11/24/2020 | 3/18/2021 |
| tblConstructionPhase | PhaseStartDate | 7/2/2020 | 7/8/2020 |
| tblEnergyUse | NT24E | 20.65 | 55.87 |
| tblEnergyUse | NT24NG | 12.77 | 0.00 |
| tblEnergyUse | T24E | 0.84 | 55.87 |
| tblEnergyUse | T24NG | 4.92 | 0.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | | | |
|---------------------|----------------------------|-------|--------------------------|
| tblGrading | AcresOfGrading | 20.00 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 0.60 |
| tblGrading | MaterialImported | 0.00 | 2,793.00 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.41 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.36 | 0.36 |
| tblOffRoadEquipment | LoadFactor | 0.50 | 0.50 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crushing/Proc. Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Concrete/Industrial Saws |
| tblOffRoadEquipment | OffRoadEquipmentType | | Graders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Dumpers/Tenders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Paving Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Bore/Drill Rigs |
| tblOffRoadEquipment | OffRoadEquipmentType | | Pumps |
| tblOffRoadEquipment | OffRoadEquipmentType | | Welders |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | | | |
|---------------------|----------------------------|--------------|-------|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 7.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 32.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 21.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 56.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.13 |
| tblVehicleTrips | SU_TR | 1.68 | 0.13 |
| tblVehicleTrips | WD_TR | 1.68 | 0.13 |
| tblWater | IndoorWaterUseRate | 6,937,500.00 | 0.00 |

2.0 Emissions Summary

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|------------|--|--|
| 1 | 6-18-2020 | 9-17-2020 | 0.6778 | 0.1157 |
| 2 | 9-18-2020 | 12-17-2020 | 0.8087 | 0.1534 |
| 3 | 12-18-2020 | 3-17-2021 | 0.8691 | 0.2288 |
| 4 | 3-18-2021 | 6-17-2021 | 0.4377 | 0.3599 |
| | | Highest | 0.8691 | 0.3599 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.1520 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 549.9442 | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |
| Mobile | 1.1400e-003 | 5.7600e-003 | 0.0140 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 0.0000 | 4.5566 | 4.5566 | 1.7000e-004 | 0.0000 | 4.5607 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 5.7244 | 0.0000 | 5.7244 | 0.3383 | 0.0000 | 14.1818 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.1531 | 5.7600e-003 | 0.0143 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 5.7244 | 554.5013 | 560.2257 | 0.3835 | 9.3100e-003 | 572.5884 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.1485 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 549.9442 | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |
| Mobile | 1.1400e-003 | 5.7600e-003 | 0.0140 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 0.0000 | 4.5566 | 4.5566 | 1.7000e-004 | 0.0000 | 4.5607 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 5.7244 | 0.0000 | 5.7244 | 0.3383 | 0.0000 | 14.1818 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.1496 | 5.7600e-003 | 0.0143 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 5.7244 | 554.5013 | 560.2257 | 0.3835 | 9.3100e-003 | 572.5884 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------|------|------|
| Percent Reduction | 2.27 | 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

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|----------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 6/18/2020 | 7/7/2020 | 5 | 14 | |
| 2 | Site Preparation | Site Preparation | 7/8/2020 | 7/16/2020 | 5 | 7 | |
| 3 | Grading | Grading | 7/17/2020 | 9/10/2020 | 5 | 40 | |
| 4 | Building Construction-Piping | Building Construction | 9/11/2020 | 11/11/2020 | 5 | 44 | |
| 5 | Paving | Paving | 3/18/2021 | 4/7/2021 | 5 | 15 | |
| 6 | Architectural Coating | Architectural Coating | 4/8/2021 | 5/5/2021 | 5 | 20 | |
| 7 | Building Construction-Structures | Building Construction | 11/12/2020 | 3/17/2021 | 5 | 90 | |

Acres of Grading (Site Preparation Phase): 0.6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------------------------|--------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Building Construction-Piping | Cranes | 2 | 4.00 | 231 | 0.29 |
| Building Construction-Piping | Forklifts | 0 | 0.00 | 89 | 0.20 |
| Site Preparation | Graders | 0 | 0.00 | 187 | 0.41 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | | | | | |
|----------------------------------|---------------------------|---|------|-----|------|
| Demolition | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Building Construction-Piping | Tractors/Loaders/Backhoes | 6 | 8.00 | 97 | 0.37 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Building Construction-Structures | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction-Structures | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction-Structures | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Demolition | Off-Highway Trucks | 2 | 6.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 2 | 8.00 | 402 | 0.38 |
| Site Preparation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Site Preparation | Crushing/Proc. Equipment | 1 | 8.00 | 85 | 0.78 |
| Site Preparation | Concrete/Industrial Saws | 2 | 6.00 | 81 | 0.73 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Building Construction-Piping | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |
| Paving | Dumpers/Tenders | 1 | 8.00 | 16 | 0.38 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Building Construction-Structures | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |
| Building Construction-Structures | Bore/Drill Rigs | 1 | 8.00 | 221 | 0.50 |
| Building Construction-Structures | Pumps | 2 | 8.00 | 84 | 0.74 |
| Building Construction-Structures | Welders | 2 | 8.00 | 46 | 0.45 |

Trips and VMT

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| 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 |
|----------------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 4 | 10.00 | 0.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 5 | 7.00 | 0.00 | 349.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Piping | 10 | 32.00 | 10.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 21.00 | 4.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Structures | 12 | 56.00 | 24.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 4.4000e-004 | 0.0000 | 4.4000e-004 | 7.0000e-005 | 0.0000 | 7.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 9.2000e-003 | 0.0888 | 0.0641 | 1.7000e-004 | | 3.8300e-003 | 3.8300e-003 | | 3.5200e-003 | 3.5200e-003 | 0.0000 | 15.1053 | 15.1053 | 4.8900e-003 | 0.0000 | 15.2274 |
| Total | 9.2000e-003 | 0.0888 | 0.0641 | 1.7000e-004 | 4.4000e-004 | 3.8300e-003 | 4.2700e-003 | 7.0000e-005 | 3.5200e-003 | 3.5900e-003 | 0.0000 | 15.1053 | 15.1053 | 4.8900e-003 | 0.0000 | 15.2274 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.2 Demolition - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 5.8000e-004 | 1.2000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 4.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1533 | 0.1533 | 1.0000e-005 | 0.0000 | 0.1535 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.3000e-004 | 1.7000e-004 | 1.7200e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.6000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4846 | 0.4846 | 1.0000e-005 | 0.0000 | 0.4849 |
| Total | 2.5000e-004 | 7.5000e-004 | 1.8400e-003 | 1.0000e-005 | 5.8000e-004 | 0.0000 | 6.0000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.6379 | 0.6379 | 2.0000e-005 | 0.0000 | 0.6384 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 2.0000e-004 | 0.0000 | 2.0000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.1000e-003 | 9.1200e-003 | 0.0871 | 1.7000e-004 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 15.1053 | 15.1053 | 4.8900e-003 | 0.0000 | 15.2274 |
| Total | 2.1000e-003 | 9.1200e-003 | 0.0871 | 1.7000e-004 | 2.0000e-004 | 2.8000e-004 | 4.8000e-004 | 3.0000e-005 | 2.8000e-004 | 3.1000e-004 | 0.0000 | 15.1053 | 15.1053 | 4.8900e-003 | 0.0000 | 15.2274 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

3.2 Demolition - 2020**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.0000e-005 | 5.8000e-004 | 1.2000e-004 | 0.0000 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.1533 | 0.1533 | 1.0000e-005 | 0.0000 | 0.1535 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.3000e-004 | 1.7000e-004 | 1.7200e-003 | 1.0000e-005 | 5.3000e-004 | 0.0000 | 5.3000e-004 | 1.4000e-004 | 0.0000 | 1.4000e-004 | 0.0000 | 0.4846 | 0.4846 | 1.0000e-005 | 0.0000 | 0.4849 |
| Total | 2.5000e-004 | 7.5000e-004 | 1.8400e-003 | 1.0000e-005 | 5.6000e-004 | 0.0000 | 5.6000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.6379 | 0.6379 | 2.0000e-005 | 0.0000 | 0.6384 |

3.3 Site Preparation - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 3.2000e-004 | 0.0000 | 3.2000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0104 | 0.0910 | 0.0809 | 1.8000e-004 | | 4.3800e-003 | 4.3800e-003 | | 4.1800e-003 | 4.1800e-003 | 0.0000 | 15.6438 | 15.6438 | 3.8000e-003 | 0.0000 | 15.7388 |
| Total | 0.0104 | 0.0910 | 0.0809 | 1.8000e-004 | 3.2000e-004 | 4.3800e-003 | 4.7000e-003 | 3.0000e-005 | 4.1800e-003 | 4.2100e-003 | 0.0000 | 15.6438 | 15.6438 | 3.8000e-003 | 0.0000 | 15.7388 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.3 Site Preparation - 2020

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 | 9.0000e-005 | 7.0000e-005 | 6.9000e-004 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1938 | 0.1938 | 0.0000 | 0.0000 | 0.1940 |
| Total | 9.0000e-005 | 7.0000e-005 | 6.9000e-004 | 0.0000 | 2.2000e-004 | 0.0000 | 2.2000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1938 | 0.1938 | 0.0000 | 0.0000 | 0.1940 |

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 | 2.0000e-005 | 0.0000 | 2.0000e-005 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.0700e-003 | 8.9600e-003 | 0.0991 | 1.8000e-004 | | 2.8000e-004 | 2.8000e-004 | | 2.8000e-004 | 2.8000e-004 | 0.0000 | 15.6438 | 15.6438 | 3.8000e-003 | 0.0000 | 15.7387 |
| Total | 2.0700e-003 | 8.9600e-003 | 0.0991 | 1.8000e-004 | 1.4000e-004 | 2.8000e-004 | 4.2000e-004 | 2.0000e-005 | 2.8000e-004 | 3.0000e-004 | 0.0000 | 15.6438 | 15.6438 | 3.8000e-003 | 0.0000 | 15.7387 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.3 Site Preparation - 2020

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 | 9.0000e-005 | 7.0000e-005 | 6.9000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 2.1000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1938 | 0.1938 | 0.0000 | 0.0000 | 0.1940 |
| Total | 9.0000e-005 | 7.0000e-005 | 6.9000e-004 | 0.0000 | 2.1000e-004 | 0.0000 | 2.1000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.1938 | 0.1938 | 0.0000 | 0.0000 | 0.1940 |

3.4 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0152 | 0.0000 | 0.0152 | 8.3000e-003 | 0.0000 | 8.3000e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0318 | 0.3447 | 0.1915 | 5.1000e-004 | | 0.0140 | 0.0140 | | 0.0129 | 0.0129 | 0.0000 | 45.0012 | 45.0012 | 0.0146 | 0.0000 | 45.3651 |
| Total | 0.0318 | 0.3447 | 0.1915 | 5.1000e-004 | 0.0152 | 0.0140 | 0.0293 | 8.3000e-003 | 0.0129 | 0.0212 | 0.0000 | 45.0012 | 45.0012 | 0.0146 | 0.0000 | 45.3651 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.4 Grading - 2020

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 | 1.4600e-003 | 0.0510 | 0.0103 | 1.4000e-004 | 2.9500e-003 | 1.6000e-004 | 3.1100e-003 | 8.1000e-004 | 1.6000e-004 | 9.7000e-004 | 0.0000 | 13.3732 | 13.3732 | 6.9000e-004 | 0.0000 | 13.3904 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.6000e-004 | 3.3000e-004 | 3.4400e-003 | 1.0000e-005 | 1.1100e-003 | 1.0000e-005 | 1.1100e-003 | 2.9000e-004 | 1.0000e-005 | 3.0000e-004 | 0.0000 | 0.9692 | 0.9692 | 2.0000e-005 | 0.0000 | 0.9698 |
| Total | 1.9200e-003 | 0.0514 | 0.0137 | 1.5000e-004 | 4.0600e-003 | 1.7000e-004 | 4.2200e-003 | 1.1000e-003 | 1.7000e-004 | 1.2700e-003 | 0.0000 | 14.3424 | 14.3424 | 7.1000e-004 | 0.0000 | 14.3602 |

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 | | | | | 6.8500e-003 | 0.0000 | 6.8500e-003 | 3.7300e-003 | 0.0000 | 3.7300e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 6.2700e-003 | 0.0272 | 0.2583 | 5.1000e-004 | | 8.4000e-004 | 8.4000e-004 | | 8.4000e-004 | 8.4000e-004 | 0.0000 | 45.0011 | 45.0011 | 0.0146 | 0.0000 | 45.3650 |
| Total | 6.2700e-003 | 0.0272 | 0.2583 | 5.1000e-004 | 6.8500e-003 | 8.4000e-004 | 7.6900e-003 | 3.7300e-003 | 8.4000e-004 | 4.5700e-003 | 0.0000 | 45.0011 | 45.0011 | 0.0146 | 0.0000 | 45.3650 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.4 Grading - 2020

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 | 1.4600e-003 | 0.0510 | 0.0103 | 1.4000e-004 | 2.8400e-003 | 1.6000e-004 | 3.0000e-003 | 7.8000e-004 | 1.6000e-004 | 9.4000e-004 | 0.0000 | 13.3732 | 13.3732 | 6.9000e-004 | 0.0000 | 13.3904 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 4.6000e-004 | 3.3000e-004 | 3.4400e-003 | 1.0000e-005 | 1.0600e-003 | 1.0000e-005 | 1.0700e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.9692 | 0.9692 | 2.0000e-005 | 0.0000 | 0.9698 |
| Total | 1.9200e-003 | 0.0514 | 0.0137 | 1.5000e-004 | 3.9000e-003 | 1.7000e-004 | 4.0700e-003 | 1.0600e-003 | 1.7000e-004 | 1.2300e-003 | 0.0000 | 14.3424 | 14.3424 | 7.1000e-004 | 0.0000 | 14.3602 |

3.5 Building Construction-Piping - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0402 | 0.4127 | 0.3610 | 5.7000e-004 | | 0.0231 | 0.0231 | | 0.0213 | 0.0213 | 0.0000 | 49.1853 | 49.1853 | 0.0155 | 0.0000 | 49.5719 |
| Total | 0.0402 | 0.4127 | 0.3610 | 5.7000e-004 | | 0.0231 | 0.0231 | | 0.0213 | 0.0213 | 0.0000 | 49.1853 | 49.1853 | 0.0155 | 0.0000 | 49.5719 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.5 Building Construction-Piping - 2020**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 | 8.5000e-004 | 0.0254 | 6.3800e-003 | 6.0000e-005 | 1.4400e-003 | 1.2000e-004 | 1.5700e-003 | 4.2000e-004 | 1.2000e-004 | 5.4000e-004 | 0.0000 | 5.7600 | 5.7600 | 3.0000e-004 | 0.0000 | 5.7675 |
| Worker | 2.3300e-003 | 1.6700e-003 | 0.0173 | 5.0000e-005 | 5.5600e-003 | 4.0000e-005 | 5.6000e-003 | 1.4800e-003 | 3.0000e-005 | 1.5100e-003 | 0.0000 | 4.8737 | 4.8737 | 1.2000e-004 | 0.0000 | 4.8766 |
| Total | 3.1800e-003 | 0.0271 | 0.0237 | 1.1000e-004 | 7.0000e-003 | 1.6000e-004 | 7.1700e-003 | 1.9000e-003 | 1.5000e-004 | 2.0500e-003 | 0.0000 | 10.6337 | 10.6337 | 4.2000e-004 | 0.0000 | 10.6441 |

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 | 6.5700e-003 | 0.0285 | 0.3663 | 5.7000e-004 | | 8.8000e-004 | 8.8000e-004 | | 8.8000e-004 | 8.8000e-004 | 0.0000 | 49.1853 | 49.1853 | 0.0155 | 0.0000 | 49.5719 |
| Total | 6.5700e-003 | 0.0285 | 0.3663 | 5.7000e-004 | | 8.8000e-004 | 8.8000e-004 | | 8.8000e-004 | 8.8000e-004 | 0.0000 | 49.1853 | 49.1853 | 0.0155 | 0.0000 | 49.5719 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.5 Building Construction-Piping - 2020**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 | 8.5000e-004 | 0.0254 | 6.3800e-003 | 6.0000e-005 | 1.3900e-003 | 1.2000e-004 | 1.5200e-003 | 4.0000e-004 | 1.2000e-004 | 5.2000e-004 | 0.0000 | 5.7600 | 5.7600 | 3.0000e-004 | 0.0000 | 5.7675 |
| Worker | 2.3300e-003 | 1.6700e-003 | 0.0173 | 5.0000e-005 | 5.3200e-003 | 4.0000e-005 | 5.3600e-003 | 1.4200e-003 | 3.0000e-005 | 1.4600e-003 | 0.0000 | 4.8737 | 4.8737 | 1.2000e-004 | 0.0000 | 4.8766 |
| Total | 3.1800e-003 | 0.0271 | 0.0237 | 1.1000e-004 | 6.7100e-003 | 1.6000e-004 | 6.8800e-003 | 1.8200e-003 | 1.5000e-004 | 1.9800e-003 | 0.0000 | 10.6337 | 10.6337 | 4.2000e-004 | 0.0000 | 10.6441 |

3.6 Paving - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 6.3900e-003 | 0.0620 | 0.0687 | 1.1000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.0100e-003 | 3.0100e-003 | 0.0000 | 9.3329 | 9.3329 | 2.8700e-003 | 0.0000 | 9.4048 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 6.3900e-003 | 0.0620 | 0.0687 | 1.1000e-004 | | 3.2500e-003 | 3.2500e-003 | | 3.0100e-003 | 3.0100e-003 | 0.0000 | 9.3329 | 9.3329 | 2.8700e-003 | 0.0000 | 9.4048 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

3.6 Paving - 2021**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.0000e-004 | 3.1300e-003 | 7.8000e-004 | 1.0000e-005 | 2.0000e-004 | 1.0000e-005 | 2.0000e-004 | 6.0000e-005 | 1.0000e-005 | 6.0000e-005 | 0.0000 | 0.7780 | 0.7780 | 4.0000e-005 | 0.0000 | 0.7790 |
| Worker | 4.8000e-004 | 3.3000e-004 | 3.5300e-003 | 1.0000e-005 | 1.2400e-003 | 1.0000e-005 | 1.2500e-003 | 3.3000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.0521 | 1.0521 | 2.0000e-005 | 0.0000 | 1.0527 |
| Total | 5.8000e-004 | 3.4600e-003 | 4.3100e-003 | 2.0000e-005 | 1.4400e-003 | 2.0000e-005 | 1.4500e-003 | 3.9000e-004 | 2.0000e-005 | 4.0000e-004 | 0.0000 | 1.8301 | 1.8301 | 6.0000e-005 | 0.0000 | 1.8317 |

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 | 1.2100e-003 | 5.2500e-003 | 0.0747 | 1.1000e-004 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 9.3329 | 9.3329 | 2.8700e-003 | 0.0000 | 9.4047 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 1.2100e-003 | 5.2500e-003 | 0.0747 | 1.1000e-004 | | 1.6000e-004 | 1.6000e-004 | | 1.6000e-004 | 1.6000e-004 | 0.0000 | 9.3329 | 9.3329 | 2.8700e-003 | 0.0000 | 9.4047 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

3.6 Paving - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.0000e-004 | 3.1300e-003 | 7.8000e-004 | 1.0000e-005 | 1.9000e-004 | 1.0000e-005 | 2.0000e-004 | 6.0000e-005 | 1.0000e-005 | 6.0000e-005 | 0.0000 | 0.7780 | 0.7780 | 4.0000e-005 | 0.0000 | 0.7790 |
| Worker | 4.8000e-004 | 3.3000e-004 | 3.5300e-003 | 1.0000e-005 | 1.1900e-003 | 1.0000e-005 | 1.2000e-003 | 3.2000e-004 | 1.0000e-005 | 3.3000e-004 | 0.0000 | 1.0521 | 1.0521 | 2.0000e-005 | 0.0000 | 1.0527 |
| Total | 5.8000e-004 | 3.4600e-003 | 4.3100e-003 | 2.0000e-005 | 1.3800e-003 | 2.0000e-005 | 1.4000e-003 | 3.8000e-004 | 2.0000e-005 | 3.9000e-004 | 0.0000 | 1.8301 | 1.8301 | 6.0000e-005 | 0.0000 | 1.8317 |

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.3476 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 2.1900e-003 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |
| Total | 0.3498 | 0.0153 | 0.0182 | 3.0000e-005 | | 9.4000e-004 | 9.4000e-004 | | 9.4000e-004 | 9.4000e-004 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

3.7 Architectural Coating - 2021

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 | 9.0000e-005 | 6.0000e-005 | 6.7000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2004 | 0.2004 | 0.0000 | 0.0000 | 0.2005 |
| Total | 9.0000e-005 | 6.0000e-005 | 6.7000e-004 | 0.0000 | 2.4000e-004 | 0.0000 | 2.4000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2004 | 0.2004 | 0.0000 | 0.0000 | 0.2005 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Archit. Coating | 0.3476 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 3.0000e-004 | 1.2900e-003 | 0.0183 | 3.0000e-005 | | 4.0000e-005 | 4.0000e-005 | | 4.0000e-005 | 4.0000e-005 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |
| Total | 0.3479 | 1.2900e-003 | 0.0183 | 3.0000e-005 | | 4.0000e-005 | 4.0000e-005 | | 4.0000e-005 | 4.0000e-005 | 0.0000 | 2.5533 | 2.5533 | 1.8000e-004 | 0.0000 | 2.5576 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.7 Architectural Coating - 2021

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 | 9.0000e-005 | 6.0000e-005 | 6.7000e-004 | 0.0000 | 2.3000e-004 | 0.0000 | 2.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2004 | 0.2004 | 0.0000 | 0.0000 | 0.2005 |
| Total | 9.0000e-005 | 6.0000e-005 | 6.7000e-004 | 0.0000 | 2.3000e-004 | 0.0000 | 2.3000e-004 | 6.0000e-005 | 0.0000 | 6.0000e-005 | 0.0000 | 0.2004 | 0.2004 | 0.0000 | 0.0000 | 0.2005 |

3.8 Building Construction-Structures - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0502 | 0.4199 | 0.3808 | 7.3000e-004 | | 0.0223 | 0.0223 | | 0.0214 | 0.0214 | 0.0000 | 61.7149 | 61.7149 | 0.0130 | 0.0000 | 62.0410 |
| Total | 0.0502 | 0.4199 | 0.3808 | 7.3000e-004 | | 0.0223 | 0.0223 | | 0.0214 | 0.0214 | 0.0000 | 61.7149 | 61.7149 | 0.0130 | 0.0000 | 62.0410 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.8 Building Construction-Structures - 2020

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.6700e-003 | 0.0498 | 0.0125 | 1.2000e-004 | 2.8300e-003 | 2.4000e-004 | 3.0800e-003 | 8.2000e-004 | 2.3000e-004 | 1.0500e-003 | 0.0000 | 11.3106 | 11.3106 | 5.8000e-004 | 0.0000 | 11.3252 |
| Worker | 3.3400e-003 | 2.3900e-003 | 0.0248 | 8.0000e-005 | 7.9700e-003 | 5.0000e-005 | 8.0200e-003 | 2.1200e-003 | 5.0000e-005 | 2.1700e-003 | 0.0000 | 6.9782 | 6.9782 | 1.7000e-004 | 0.0000 | 6.9824 |
| Total | 5.0100e-003 | 0.0522 | 0.0373 | 2.0000e-004 | 0.0108 | 2.9000e-004 | 0.0111 | 2.9400e-003 | 2.8000e-004 | 3.2200e-003 | 0.0000 | 18.2888 | 18.2888 | 7.5000e-004 | 0.0000 | 18.3076 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 8.5700e-003 | 0.0665 | 0.4166 | 7.3000e-004 | | 1.0400e-003 | 1.0400e-003 | | 1.0400e-003 | 1.0400e-003 | 0.0000 | 61.7148 | 61.7148 | 0.0130 | 0.0000 | 62.0409 |
| Total | 8.5700e-003 | 0.0665 | 0.4166 | 7.3000e-004 | | 1.0400e-003 | 1.0400e-003 | | 1.0400e-003 | 1.0400e-003 | 0.0000 | 61.7148 | 61.7148 | 0.0130 | 0.0000 | 62.0409 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.8 Building Construction-Structures - 2020

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.6700e-003 | 0.0498 | 0.0125 | 1.2000e-004 | 2.7300e-003 | 2.4000e-004 | 2.9800e-003 | 7.9000e-004 | 2.3000e-004 | 1.0300e-003 | 0.0000 | 11.3106 | 11.3106 | 5.8000e-004 | 0.0000 | 11.3252 |
| Worker | 3.3400e-003 | 2.3900e-003 | 0.0248 | 8.0000e-005 | 7.6200e-003 | 5.0000e-005 | 7.6700e-003 | 2.0300e-003 | 5.0000e-005 | 2.0800e-003 | 0.0000 | 6.9782 | 6.9782 | 1.7000e-004 | 0.0000 | 6.9824 |
| Total | 5.0100e-003 | 0.0522 | 0.0373 | 2.0000e-004 | 0.0104 | 2.9000e-004 | 0.0107 | 2.8200e-003 | 2.8000e-004 | 3.1100e-003 | 0.0000 | 18.2888 | 18.2888 | 7.5000e-004 | 0.0000 | 18.3076 |

3.8 Building Construction-Structures - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0680 | 0.5723 | 0.5639 | 1.0900e-003 | | 0.0289 | 0.0289 | | 0.0278 | 0.0278 | 0.0000 | 92.6338 | 92.6338 | 0.0193 | 0.0000 | 93.1149 |
| Total | 0.0680 | 0.5723 | 0.5639 | 1.0900e-003 | | 0.0289 | 0.0289 | | 0.0278 | 0.0278 | 0.0000 | 92.6338 | 92.6338 | 0.0193 | 0.0000 | 93.1149 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.8 Building Construction-Structures - 2021**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 | 2.0600e-003 | 0.0677 | 0.0169 | 1.7000e-004 | 4.2500e-003 | 1.5000e-004 | 4.4000e-003 | 1.2300e-003 | 1.4000e-004 | 1.3700e-003 | 0.0000 | 16.8055 | 16.8055 | 8.3000e-004 | 0.0000 | 16.8261 |
| Worker | 4.6400e-003 | 3.2000e-003 | 0.0339 | 1.1000e-004 | 0.0120 | 8.0000e-005 | 0.0120 | 3.1800e-003 | 7.0000e-005 | 3.2500e-003 | 0.0000 | 10.1000 | 10.1000 | 2.3000e-004 | 0.0000 | 10.1057 |
| Total | 6.7000e-003 | 0.0709 | 0.0508 | 2.8000e-004 | 0.0162 | 2.3000e-004 | 0.0164 | 4.4100e-003 | 2.1000e-004 | 4.6200e-003 | 0.0000 | 26.9055 | 26.9055 | 1.0600e-003 | 0.0000 | 26.9318 |

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 | 0.0129 | 0.0997 | 0.6248 | 1.0900e-003 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | 0.0000 | 92.6337 | 92.6337 | 0.0193 | 0.0000 | 93.1148 |
| Total | 0.0129 | 0.0997 | 0.6248 | 1.0900e-003 | | 1.5600e-003 | 1.5600e-003 | | 1.5600e-003 | 1.5600e-003 | 0.0000 | 92.6337 | 92.6337 | 0.0193 | 0.0000 | 93.1148 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

3.8 Building Construction-Structures - 2021**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 | 2.0600e-003 | 0.0677 | 0.0169 | 1.7000e-004 | 4.1000e-003 | 1.5000e-004 | 4.2500e-003 | 1.1900e-003 | 1.4000e-004 | 1.3300e-003 | 0.0000 | 16.8055 | 16.8055 | 8.3000e-004 | 0.0000 | 16.8261 |
| Worker | 4.6400e-003 | 3.2000e-003 | 0.0339 | 1.1000e-004 | 0.0114 | 8.0000e-005 | 0.0115 | 3.0500e-003 | 7.0000e-005 | 3.1200e-003 | 0.0000 | 10.1000 | 10.1000 | 2.3000e-004 | 0.0000 | 10.1057 |
| Total | 6.7000e-003 | 0.0709 | 0.0508 | 2.8000e-004 | 0.0155 | 2.3000e-004 | 0.0158 | 4.2400e-003 | 2.1000e-004 | 4.4500e-003 | 0.0000 | 26.9055 | 26.9055 | 1.0600e-003 | 0.0000 | 26.9318 |

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | ROG | NOx | CO | SO2 | 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 | 1.1400e-003 | 5.7600e-003 | 0.0140 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 0.0000 | 4.5566 | 4.5566 | 1.7000e-004 | 0.0000 | 4.5607 |
| Unmitigated | 1.1400e-003 | 5.7600e-003 | 0.0140 | 5.0000e-005 | 4.2400e-003 | 5.0000e-005 | 4.2800e-003 | 1.1400e-003 | 4.0000e-005 | 1.1800e-003 | 0.0000 | 4.5566 | 4.5566 | 1.7000e-004 | 0.0000 | 4.5607 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |
| Total | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|---------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | 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 |
| Refrigerated Warehouse-No | 9.50 | 7.30 | 7.30 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Refrigerated Warehouse-No Rail | 0.575198 | 0.040076 | 0.193827 | 0.113296 | 0.016988 | 0.005361 | 0.017552 | 0.025197 | 0.002581 | 0.002349 | 0.005904 | 0.000881 | 0.000789 |

5.0 Energy Detail

Historical Energy Use: N

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas 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 | | | | | |
| Refrigerated Warehouse-No Rail | 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 | | | |
| Refrigerated Warehouse-No Rail | 3.4224e+006 | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |
| Total | | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|-----------------|---------------|--------------------|-----------------|
| Land Use | kWh/yr | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 3.4224e+006 | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |
| Total | | 549.9442 | 0.0450 | 9.3100e-003 | 553.8453 |

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Exterior

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Annual

| | ROG | NOx | CO | SO2 | 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 | 0.1485 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Unmitigated | 0.1520 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-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 | 0.0348 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Total | 0.1520 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

6.2 Area by SubCategory**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 | 0.0313 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.1172 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 3.0000e-005 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |
| Total | 0.1485 | 0.0000 | 2.8000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 5.4000e-004 | 5.4000e-004 | 0.0000 | 0.0000 | 5.7000e-004 |

7.0 Water Detail**7.1 Mitigation Measures Water**

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

| | 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 | | | |
| Refrigerated Warehouse-No Rail | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

7.2 Water by Land Use**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 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 | 5.7244 | 0.3383 | 0.0000 | 14.1818 |
| Unmitigated | 5.7244 | 0.3383 | 0.0000 | 14.1818 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

8.2 Waste by Land Use**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 28.2 | 5.7244 | 0.3383 | 0.0000 | 14.1818 |
| Total | | 5.7244 | 0.3383 | 0.0000 | 14.1818 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|---------------|---------------|---------------|----------------|
| Land Use | tons | MT/yr | | | |
| Refrigerated Warehouse-No Rail | 28.2 | 5.7244 | 0.3383 | 0.0000 | 14.1818 |
| Total | | 5.7244 | 0.3383 | 0.0000 | 14.1818 |

9.0 Operational Offroad

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

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Annual

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

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

Palo Alto RWQCP AWP
San Francisco Bay Area Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|-------|----------|-------------|--------------------|------------|
| Refrigerated Warehouse-No Rail | 30.00 | 1000sqft | 0.69 | 30,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|--------------------------------|------------------------------------|--------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 64 |
| Climate Zone | 5 | | | Operational Year | 2021 |
| Utility Company | City of Palo Alto Public Utilities | | | | |
| CO2 Intensity (lb/MWhr) | 354.26 | CH4 Intensity (lb/MWhr) | 0.029 | N2O Intensity (lb/MWhr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

Project Characteristics -

Land Use -

Construction Phase - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment -

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Grading - According to PDR.

Demolition -

Trips and VMT - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Vehicle Trips - From PDR.

Energy Use - Table 8-7 of PDR.

Water And Wastewater - The project would not consume indoor water. Irrigation provided by the facility.

Construction Off-road Equipment Mitigation - Standard BAAQMD mitigation and clean vehicles.

Area Mitigation - ROG reduction for coatings.

| Table Name | Column Name | Default Value | New Value |
|-------------------------|---|---------------|-----------|
| tblAreaMitigation | UseLowVOCPaintNonresidentialExteriorValue | 250 | 150 |
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 5.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 3.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

| | | | |
|-------------------------|----------------|------------|--------------|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstructionPhase | NumDays | 5.00 | 20.00 |
| tblConstructionPhase | NumDays | 100.00 | 44.00 |
| tblConstructionPhase | NumDays | 10.00 | 14.00 |
| tblConstructionPhase | NumDays | 2.00 | 40.00 |
| tblConstructionPhase | NumDays | 5.00 | 15.00 |
| tblConstructionPhase | NumDays | 1.00 | 7.00 |
| tblConstructionPhase | NumDays | 100.00 | 90.00 |
| tblConstructionPhase | PhaseEndDate | 12/7/2020 | 5/5/2021 |
| tblConstructionPhase | PhaseEndDate | 11/23/2020 | 11/11/2020 |
| tblConstructionPhase | PhaseEndDate | 7/1/2020 | 7/7/2020 |
| tblConstructionPhase | PhaseEndDate | 7/6/2020 | 9/10/2020 |
| tblConstructionPhase | PhaseEndDate | 11/30/2020 | 4/7/2021 |
| tblConstructionPhase | PhaseEndDate | 7/2/2020 | 7/16/2020 |
| tblConstructionPhase | PhaseStartDate | 12/1/2020 | 4/8/2021 |
| tblConstructionPhase | PhaseStartDate | 7/7/2020 | 9/11/2020 |
| tblConstructionPhase | PhaseStartDate | 7/3/2020 | 7/17/2020 |
| tblConstructionPhase | PhaseStartDate | 11/24/2020 | 3/18/2021 |
| tblConstructionPhase | PhaseStartDate | 7/2/2020 | 7/8/2020 |
| tblEnergyUse | NT24E | 20.65 | 55.87 |
| tblEnergyUse | NT24NG | 12.77 | 0.00 |
| tblEnergyUse | T24E | 0.84 | 55.87 |
| tblEnergyUse | T24NG | 4.92 | 0.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

| | | | |
|---------------------|----------------------------|-------|--------------------------|
| tblGrading | AcresOfGrading | 20.00 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 0.60 |
| tblGrading | MaterialImported | 0.00 | 2,793.00 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.41 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.36 | 0.36 |
| tblOffRoadEquipment | LoadFactor | 0.50 | 0.50 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crushing/Proc. Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Concrete/Industrial Saws |
| tblOffRoadEquipment | OffRoadEquipmentType | | Graders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Dumpers/Tenders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Paving Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Bore/Drill Rigs |
| tblOffRoadEquipment | OffRoadEquipmentType | | Pumps |
| tblOffRoadEquipment | OffRoadEquipmentType | | Welders |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Summer

| | | | |
|---------------------|----------------------------|--------------|-------|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 7.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 32.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 21.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 56.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.13 |
| tblVehicleTrips | SU_TR | 1.68 | 0.13 |
| tblVehicleTrips | WD_TR | 1.68 | 0.13 |
| tblWater | IndoorWaterUseRate | 6,937,500.00 | 0.00 |

2.0 Emissions Summary

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|---------------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| 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 |
| Mobile | 7.1000e-003 | 0.0306 | 0.0809 | 2.9000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 29.2231 | 29.2231 | 1.0100e-003 | | 29.2484 |
| Total | 0.8399 | 0.0306 | 0.0840 | 2.9000e-004 | 0.0242 | 2.6000e-004 | 0.0245 | 6.4700e-003 | 2.5000e-004 | 6.7200e-003 | | 29.2297 | 29.2297 | 1.0300e-003 | 0.0000 | 29.2554 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|---------------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| 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 |
| Mobile | 7.1000e-003 | 0.0306 | 0.0809 | 2.9000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 29.2231 | 29.2231 | 1.0100e-003 | | 29.2484 |
| Total | 0.8208 | 0.0306 | 0.0840 | 2.9000e-004 | 0.0242 | 2.6000e-004 | 0.0245 | 6.4700e-003 | 2.5000e-004 | 6.7200e-003 | | 29.2297 | 29.2297 | 1.0300e-003 | 0.0000 | 29.2554 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 2.27 | 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 | Demolition | Demolition | 6/18/2020 | 7/7/2020 | 5 | 14 | |
| 2 | Site Preparation | Site Preparation | 7/8/2020 | 7/16/2020 | 5 | 7 | |
| 3 | Grading | Grading | 7/17/2020 | 9/10/2020 | 5 | 40 | |
| 4 | Building Construction-Piping | Building Construction | 9/11/2020 | 11/11/2020 | 5 | 44 | |
| 5 | Paving | Paving | 3/18/2021 | 4/7/2021 | 5 | 15 | |
| 6 | Architectural Coating | Architectural Coating | 4/8/2021 | 5/5/2021 | 5 | 20 | |
| 7 | Building Construction-Structures | Building Construction | 11/12/2020 | 3/17/2021 | 5 | 90 | |

Acres of Grading (Site Preparation Phase): 0.6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|--------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

| | | | | | |
|----------------------------------|---------------------------|---|------|-----|------|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Building Construction-Piping | Cranes | 2 | 4.00 | 231 | 0.29 |
| Building Construction-Piping | Forklifts | 0 | 0.00 | 89 | 0.20 |
| Site Preparation | Graders | 0 | 0.00 | 187 | 0.41 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Building Construction-Piping | Tractors/Loaders/Backhoes | 6 | 8.00 | 97 | 0.37 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Building Construction-Structures | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction-Structures | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction-Structures | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Demolition | Off-Highway Trucks | 2 | 6.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 2 | 8.00 | 402 | 0.38 |
| Site Preparation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Site Preparation | Crushing/Proc. Equipment | 1 | 8.00 | 85 | 0.78 |
| Site Preparation | Concrete/Industrial Saws | 2 | 6.00 | 81 | 0.73 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Building Construction-Piping | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |
| Paving | Dumpers/Tenders | 1 | 8.00 | 16 | 0.38 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Building Construction-Structures | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

| | | | | | |
|----------------------------------|-----------------|---|------|-----|------|
| Building Construction-Structures | Bore/Drill Rigs | 1 | 8.00 | 221 | 0.50 |
| Building Construction-Structures | Pumps | 2 | 8.00 | 84 | 0.74 |
| Building Construction-Structures | Welders | 2 | 8.00 | 46 | 0.45 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|----------------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 4 | 10.00 | 0.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 5 | 7.00 | 0.00 | 349.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Piping | 10 | 32.00 | 10.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 21.00 | 4.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Structures | 12 | 56.00 | 24.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.2 Demolition - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0633 | 0.0000 | 0.0633 | 9.5800e-003 | 0.0000 | 9.5800e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3139 | 12.6892 | 9.1633 | 0.0246 | | 0.5470 | 0.5470 | | 0.5032 | 0.5032 | | 2,378.6754 | 2,378.6754 | 0.7693 | | 2,397.9082 |
| Total | 1.3139 | 12.6892 | 9.1633 | 0.0246 | 0.0633 | 0.5470 | 0.6102 | 9.5800e-003 | 0.5032 | 0.5128 | | 2,378.6754 | 2,378.6754 | 0.7693 | | 2,397.9082 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 2.3600e-003 | 0.0818 | 0.0163 | 2.3000e-004 | 4.9900e-003 | 2.7000e-004 | 5.2600e-003 | 1.3700e-003 | 2.6000e-004 | 1.6200e-003 | | 24.3081 | 24.3081 | 1.2200e-003 | | 24.3385 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0348 | 0.0210 | 0.2683 | 8.2000e-004 | 0.0822 | 5.3000e-004 | 0.0827 | 0.0218 | 4.9000e-004 | 0.0223 | | 82.0777 | 82.0777 | 1.9800e-003 | | 82.1271 |
| Total | 0.0371 | 0.1029 | 0.2846 | 1.0500e-003 | 0.0871 | 8.0000e-004 | 0.0879 | 0.0232 | 7.5000e-004 | 0.0239 | | 106.3858 | 106.3858 | 3.2000e-003 | | 106.4656 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.2 Demolition - 2020**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0285 | 0.0000 | 0.0285 | 4.3100e-003 | 0.0000 | 4.3100e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3007 | 1.3029 | 12.4485 | 0.0246 | | 0.0401 | 0.0401 | | 0.0401 | 0.0401 | 0.0000 | 2,378.675 4 | 2,378.675 4 | 0.7693 | | 2,397.908 2 |
| Total | 0.3007 | 1.3029 | 12.4485 | 0.0246 | 0.0285 | 0.0401 | 0.0686 | 4.3100e-003 | 0.0401 | 0.0444 | 0.0000 | 2,378.675 4 | 2,378.675 4 | 0.7693 | | 2,397.908 2 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 2.3600e-003 | 0.0818 | 0.0163 | 2.3000e-004 | 4.8000e-003 | 2.7000e-004 | 5.0700e-003 | 1.3200e-003 | 2.6000e-004 | 1.5800e-003 | | 24.3081 | 24.3081 | 1.2200e-003 | | 24.3385 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0348 | 0.0210 | 0.2683 | 8.2000e-004 | 0.0786 | 5.3000e-004 | 0.0791 | 0.0209 | 4.9000e-004 | 0.0214 | | 82.0777 | 82.0777 | 1.9800e-003 | | 82.1271 |
| Total | 0.0371 | 0.1029 | 0.2846 | 1.0500e-003 | 0.0834 | 8.0000e-004 | 0.0842 | 0.0222 | 7.5000e-004 | 0.0230 | | 106.3858 | 106.3858 | 3.2000e-003 | | 106.4656 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0909 | 0.0000 | 0.0909 | 9.8200e-003 | 0.0000 | 9.8200e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.9689 | 25.9856 | 23.1042 | 0.0512 | | 1.2517 | 1.2517 | | 1.1946 | 1.1946 | | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |
| Total | 2.9689 | 25.9856 | 23.1042 | 0.0512 | 0.0909 | 1.2517 | 1.3426 | 9.8200e-003 | 1.1946 | 1.2044 | | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0278 | 0.0168 | 0.2146 | 6.6000e-004 | 0.0657 | 4.3000e-004 | 0.0661 | 0.0174 | 3.9000e-004 | 0.0178 | | 65.6621 | 65.6621 | 1.5800e-003 | | 65.7017 |
| Total | 0.0278 | 0.0168 | 0.2146 | 6.6000e-004 | 0.0657 | 4.3000e-004 | 0.0661 | 0.0174 | 3.9000e-004 | 0.0178 | | 65.6621 | 65.6621 | 1.5800e-003 | | 65.7017 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.3 Site Preparation - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0409 | 0.0000 | 0.0409 | 4.4200e-003 | 0.0000 | 4.4200e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5908 | 2.5600 | 28.3080 | 0.0512 | | 0.0788 | 0.0788 | | 0.0788 | 0.0788 | 0.0000 | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |
| Total | 0.5908 | 2.5600 | 28.3080 | 0.0512 | 0.0409 | 0.0788 | 0.1197 | 4.4200e-003 | 0.0788 | 0.0832 | 0.0000 | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0278 | 0.0168 | 0.2146 | 6.6000e-004 | 0.0629 | 4.3000e-004 | 0.0633 | 0.0167 | 3.9000e-004 | 0.0171 | | 65.6621 | 65.6621 | 1.5800e-003 | | 65.7017 |
| Total | 0.0278 | 0.0168 | 0.2146 | 6.6000e-004 | 0.0629 | 4.3000e-004 | 0.0633 | 0.0167 | 3.9000e-004 | 0.0171 | | 65.6621 | 65.6621 | 1.5800e-003 | | 65.7017 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.4 Grading - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7607 | 0.0000 | 0.7607 | 0.4150 | 0.0000 | 0.4150 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.5899 | 17.2341 | 9.5739 | 0.0256 | | 0.7022 | 0.7022 | | 0.6460 | 0.6460 | | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |
| Total | 1.5899 | 17.2341 | 9.5739 | 0.0256 | 0.7607 | 0.7022 | 1.4628 | 0.4150 | 0.6460 | 1.0609 | | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0720 | 2.4992 | 0.4967 | 6.9400e-003 | 0.1524 | 8.1700e-003 | 0.1606 | 0.0418 | 7.8200e-003 | 0.0496 | | 742.3086 | 742.3086 | 0.0371 | | 743.2370 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0243 | 0.0147 | 0.1878 | 5.8000e-004 | 0.0575 | 3.7000e-004 | 0.0579 | 0.0153 | 3.4000e-004 | 0.0156 | | 57.4544 | 57.4544 | 1.3800e-003 | | 57.4890 |
| Total | 0.0963 | 2.5140 | 0.6845 | 7.5200e-003 | 0.2099 | 8.5400e-003 | 0.2185 | 0.0570 | 8.1600e-003 | 0.0652 | | 799.7630 | 799.7630 | 0.0385 | | 800.7260 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.4 Grading - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.3423 | 0.0000 | 0.3423 | 0.1867 | 0.0000 | 0.1867 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3134 | 1.3580 | 12.9147 | 0.0256 | | 0.0418 | 0.0418 | | 0.0418 | 0.0418 | 0.0000 | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |
| Total | 0.3134 | 1.3580 | 12.9147 | 0.0256 | 0.3423 | 0.0418 | 0.3841 | 0.1867 | 0.0418 | 0.2285 | 0.0000 | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0720 | 2.4992 | 0.4967 | 6.9400e-003 | 0.1467 | 8.1700e-003 | 0.1548 | 0.0404 | 7.8200e-003 | 0.0482 | | 742.3086 | 742.3086 | 0.0371 | | 743.2370 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0243 | 0.0147 | 0.1878 | 5.8000e-004 | 0.0550 | 3.7000e-004 | 0.0554 | 0.0146 | 3.4000e-004 | 0.0150 | | 57.4544 | 57.4544 | 1.3800e-003 | | 57.4890 |
| Total | 0.0963 | 2.5140 | 0.6845 | 7.5200e-003 | 0.2017 | 8.5400e-003 | 0.2102 | 0.0550 | 8.1600e-003 | 0.0632 | | 799.7630 | 799.7630 | 0.0385 | | 800.7260 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.5 Building Construction-Piping - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.8279 | 18.7588 | 16.4105 | 0.0258 | | 1.0496 | 1.0496 | | 0.9679 | 0.9679 | | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |
| Total | 1.8279 | 18.7588 | 16.4105 | 0.0258 | | 1.0496 | 1.0496 | | 0.9679 | 0.9679 | | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0379 | 1.1396 | 0.2718 | 2.7500e-003 | 0.0677 | 5.5900e-003 | 0.0733 | 0.0195 | 5.3400e-003 | 0.0248 | | 291.7081 | 291.7081 | 0.0144 | | 292.0672 |
| Worker | 0.1112 | 0.0673 | 0.8586 | 2.6400e-003 | 0.2629 | 1.7000e-003 | 0.2646 | 0.0697 | 1.5700e-003 | 0.0713 | | 262.6485 | 262.6485 | 6.3300e-003 | | 262.8067 |
| Total | 0.1491 | 1.2070 | 1.1304 | 5.3900e-003 | 0.3306 | 7.2900e-003 | 0.3379 | 0.0892 | 6.9100e-003 | 0.0961 | | 554.3566 | 554.3566 | 0.0207 | | 554.8739 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.5 Building Construction-Piping - 2020**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.2988 | 1.2947 | 16.6517 | 0.0258 | | 0.0398 | 0.0398 | | 0.0398 | 0.0398 | 0.0000 | 2,464.433 3 | 2,464.433 3 | 0.7749 | | 2,483.804 8 |
| Total | 0.2988 | 1.2947 | 16.6517 | 0.0258 | | 0.0398 | 0.0398 | | 0.0398 | 0.0398 | 0.0000 | 2,464.433 3 | 2,464.433 3 | 0.7749 | | 2,483.804 8 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0379 | 1.1396 | 0.2718 | 2.7500e-003 | 0.0653 | 5.5900e-003 | 0.0709 | 0.0189 | 5.3400e-003 | 0.0242 | | 291.7081 | 291.7081 | 0.0144 | | 292.0672 |
| Worker | 0.1112 | 0.0673 | 0.8586 | 2.6400e-003 | 0.2515 | 1.7000e-003 | 0.2532 | 0.0669 | 1.5700e-003 | 0.0685 | | 262.6485 | 262.6485 | 6.3300e-003 | | 262.8067 |
| Total | 0.1491 | 1.2070 | 1.1304 | 5.3900e-003 | 0.3167 | 7.2900e-003 | 0.3240 | 0.0858 | 6.9100e-003 | 0.0927 | | 554.3566 | 554.3566 | 0.0207 | | 554.8739 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.6 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8521 | 8.2678 | 9.1537 | 0.0144 | | 0.4332 | 0.4332 | | 0.4008 | 0.4008 | | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.8521 | 8.2678 | 9.1537 | 0.0144 | | 0.4332 | 0.4332 | | 0.4008 | 0.4008 | | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0124 | 0.4134 | 0.0975 | 1.0900e-003 | 0.0271 | 9.0000e-004 | 0.0280 | 7.7900e-003 | 8.6000e-004 | 8.6500e-003 | | 115.5834 | 115.5834 | 5.4200e-003 | | 115.7190 |
| Worker | 0.0675 | 0.0395 | 0.5158 | 1.6700e-003 | 0.1725 | 1.0900e-003 | 0.1736 | 0.0458 | 1.0000e-003 | 0.0468 | | 166.3115 | 166.3115 | 3.7200e-003 | | 166.4044 |
| Total | 0.0799 | 0.4528 | 0.6133 | 2.7600e-003 | 0.1996 | 1.9900e-003 | 0.2016 | 0.0536 | 1.8600e-003 | 0.0554 | | 281.8949 | 281.8949 | 9.1400e-003 | | 282.1235 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.6 Paving - 2021

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.1615 | 0.7000 | 9.9616 | 0.0144 | | 0.0215 | 0.0215 | | 0.0215 | 0.0215 | 0.0000 | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.1615 | 0.7000 | 9.9616 | 0.0144 | | 0.0215 | 0.0215 | | 0.0215 | 0.0215 | 0.0000 | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0124 | 0.4134 | 0.0975 | 1.0900e-003 | 0.0261 | 9.0000e-004 | 0.0270 | 7.5600e-003 | 8.6000e-004 | 8.4100e-003 | | 115.5834 | 115.5834 | 5.4200e-003 | | 115.7190 |
| Worker | 0.0675 | 0.0395 | 0.5158 | 1.6700e-003 | 0.1650 | 1.0900e-003 | 0.1661 | 0.0439 | 1.0000e-003 | 0.0449 | | 166.3115 | 166.3115 | 3.7200e-003 | | 166.4044 |
| Total | 0.0799 | 0.4528 | 0.6133 | 2.7600e-003 | 0.1911 | 1.9900e-003 | 0.1931 | 0.0515 | 1.8600e-003 | 0.0533 | | 281.8949 | 281.8949 | 9.1400e-003 | | 282.1235 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 34.7625 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 34.9814 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 9.6500e-003 | 5.6400e-003 | 0.0737 | 2.4000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 23.7588 | 23.7588 | 5.3000e-004 | | 23.7721 |
| Total | 9.6500e-003 | 5.6400e-003 | 0.0737 | 2.4000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 23.7588 | 23.7588 | 5.3000e-004 | | 23.7721 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.7 Architectural Coating - 2021

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 34.7625 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0297 | 0.1288 | 1.8324 | 2.9700e-003 | | 3.9600e-003 | 3.9600e-003 | | 3.9600e-003 | 3.9600e-003 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 34.7922 | 0.1288 | 1.8324 | 2.9700e-003 | | 3.9600e-003 | 3.9600e-003 | | 3.9600e-003 | 3.9600e-003 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 9.6500e-003 | 5.6400e-003 | 0.0737 | 2.4000e-004 | 0.0236 | 1.6000e-004 | 0.0237 | 6.2700e-003 | 1.4000e-004 | 6.4200e-003 | | 23.7588 | 23.7588 | 5.3000e-004 | | 23.7721 |
| Total | 9.6500e-003 | 5.6400e-003 | 0.0737 | 2.4000e-004 | 0.0236 | 1.6000e-004 | 0.0237 | 6.2700e-003 | 1.4000e-004 | 6.4200e-003 | | 23.7588 | 23.7588 | 5.3000e-004 | | 23.7721 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.8 Building Construction-Structures - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.7887 | 23.3293 | 21.1547 | 0.0405 | | 1.2412 | 1.2412 | | 1.1912 | 1.1912 | | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |
| Total | 2.7887 | 23.3293 | 21.1547 | 0.0405 | | 1.2412 | 1.2412 | | 1.1912 | 1.1912 | | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0910 | 2.7351 | 0.6524 | 6.6100e-003 | 0.1625 | 0.0134 | 0.1759 | 0.0468 | 0.0128 | 0.0596 | | 700.0993 | 700.0993 | 0.0345 | | 700.9612 |
| Worker | 0.1946 | 0.1178 | 1.5025 | 4.6100e-003 | 0.4600 | 2.9800e-003 | 0.4630 | 0.1220 | 2.7400e-003 | 0.1248 | | 459.6349 | 459.6349 | 0.0111 | | 459.9118 |
| Total | 0.2856 | 2.8529 | 2.1549 | 0.0112 | 0.6225 | 0.0164 | 0.6389 | 0.1688 | 0.0156 | 0.1844 | | 1,159.7342 | 1,159.7342 | 0.0456 | | 1,160.8730 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.8 Building Construction-Structures - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.4764 | 3.6925 | 23.1416 | 0.0405 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |
| Total | 0.4764 | 3.6925 | 23.1416 | 0.0405 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0910 | 2.7351 | 0.6524 | 6.6100e-003 | 0.1567 | 0.0134 | 0.1701 | 0.0453 | 0.0128 | 0.0582 | | 700.0993 | 700.0993 | 0.0345 | | 700.9612 |
| Worker | 0.1946 | 0.1178 | 1.5025 | 4.6100e-003 | 0.4400 | 2.9800e-003 | 0.4430 | 0.1171 | 2.7400e-003 | 0.1199 | | 459.6349 | 459.6349 | 0.0111 | | 459.9118 |
| Total | 0.2856 | 2.8529 | 2.1549 | 0.0112 | 0.5967 | 0.0164 | 0.6131 | 0.1625 | 0.0156 | 0.1780 | | 1,159.7342 | 1,159.7342 | 0.0456 | | 1,160.8730 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.8 Building Construction-Structures - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.5181 | 21.1970 | 20.8836 | 0.0406 | | 1.0717 | 1.0717 | | 1.0285 | 1.0285 | | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |
| Total | 2.5181 | 21.1970 | 20.8836 | 0.0406 | | 1.0717 | 1.0717 | | 1.0285 | 1.0285 | | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0744 | 2.4802 | 0.5849 | 6.5400e-003 | 0.1625 | 5.3700e-003 | 0.1678 | 0.0468 | 5.1400e-003 | 0.0519 | | 693.5005 | 693.5005 | 0.0326 | | 694.3142 |
| Worker | 0.1801 | 0.1052 | 1.3755 | 4.4500e-003 | 0.4600 | 2.8900e-003 | 0.4629 | 0.1220 | 2.6700e-003 | 0.1247 | | 443.4973 | 443.4973 | 9.9100e-003 | | 443.7452 |
| Total | 0.2545 | 2.5854 | 1.9604 | 0.0110 | 0.6225 | 8.2600e-003 | 0.6308 | 0.1688 | 7.8100e-003 | 0.1766 | | 1,136.9978 | 1,136.9978 | 0.0425 | | 1,138.0594 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

3.8 Building Construction-Structures - 2021

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.4764 | 3.6925 | 23.1416 | 0.0406 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |
| Total | 0.4764 | 3.6925 | 23.1416 | 0.0406 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0744 | 2.4802 | 0.5849 | 6.5400e-003 | 0.1567 | 5.3700e-003 | 0.1620 | 0.0453 | 5.1400e-003 | 0.0505 | | 693.5005 | 693.5005 | 0.0326 | | 694.3142 |
| Worker | 0.1801 | 0.1052 | 1.3755 | 4.4500e-003 | 0.4400 | 2.8900e-003 | 0.4429 | 0.1171 | 2.6700e-003 | 0.1198 | | 443.4973 | 443.4973 | 9.9100e-003 | | 443.7452 |
| Total | 0.2545 | 2.5854 | 1.9604 | 0.0110 | 0.5967 | 8.2600e-003 | 0.6050 | 0.1625 | 7.8100e-003 | 0.1703 | | 1,136.9978 | 1,136.9978 | 0.0425 | | 1,138.0594 |

4.0 Operational Detail - Mobile

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Summer

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-----|---------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 7.1000e-003 | 0.0306 | 0.0809 | 2.9000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 29.2231 | 29.2231 | 1.0100e-003 | | 29.2484 |
| Unmitigated | 7.1000e-003 | 0.0306 | 0.0809 | 2.9000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 29.2231 | 29.2231 | 1.0100e-003 | | 29.2484 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |
| Total | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|---------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | 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 |
| Refrigerated Warehouse-No | 9.50 | 7.30 | 7.30 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Refrigerated Warehouse-No Rail | 0.575198 | 0.040076 | 0.193827 | 0.113296 | 0.016988 | 0.005361 | 0.017552 | 0.025197 | 0.002581 | 0.002349 | 0.005904 | 0.000881 | 0.000789 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 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 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 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 |
| 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 |

Mitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 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 |
| 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 |

6.0 Area Detail

6.1 Mitigation Measures Area

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

Use Low VOC Paint - Non-Residential Exterior

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-------------|-------------|-------------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Unmitigated | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1905 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.6420 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.9000e-004 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Total | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Summer

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1714 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.6420 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.9000e-004 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Total | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Summer

| 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

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

Palo Alto RWQCP AWPf
San Francisco Bay Area Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|--------------------------------|-------|----------|-------------|--------------------|------------|
| Refrigerated Warehouse-No Rail | 30.00 | 1000sqft | 0.69 | 30,000.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|------------------------------------|---------------------------------|-------|----------------------------------|-------|
| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 64 |
| Climate Zone | 5 | | | Operational Year | 2021 |
| Utility Company | City of Palo Alto Public Utilities | | | | |
| CO2 Intensity (lb/MW hr) | 354.26 | CH4 Intensity (lb/MW hr) | 0.029 | N2O Intensity (lb/MW hr) | 0.006 |

1.3 User Entered Comments & Non-Default Data

Palo Alto RWQCP AWWP - San Francisco Bay Area Air Basin, Winter

Project Characteristics -

Land Use -

Construction Phase - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Off-road Equipment -

Off-road Equipment - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Grading - According to PDR.

Demolition -

Trips and VMT - CalEEMod defaults modified to be consistent with PDR and RSMeans.

Vehicle Trips - From PDR.

Energy Use - Table 8-7 of PDR.

Water And Wastewater - The project would not consume indoor water. Irrigation provided by the facility.

Construction Off-road Equipment Mitigation - Standard BAAQMD mitigation and clean vehicles.

Area Mitigation - ROG reduction for coatings.

| Table Name | Column Name | Default Value | New Value |
|-------------------------|---|---------------|-----------|
| tblAreaMitigation | UseLowVOCPaintNonresidentialExteriorValue | 250 | 150 |
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0 | 5 |
| tblConstDustMitigation | WaterUnpavedRoadVehicleSpeed | 0 | 15 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 1.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 5.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 2.00 |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00 | 3.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

| | | | |
|-------------------------|----------------|------------|--------------|
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstEquipMitigation | Tier | No Change | Tier 4 Final |
| tblConstructionPhase | NumDays | 5.00 | 20.00 |
| tblConstructionPhase | NumDays | 100.00 | 44.00 |
| tblConstructionPhase | NumDays | 10.00 | 14.00 |
| tblConstructionPhase | NumDays | 2.00 | 40.00 |
| tblConstructionPhase | NumDays | 5.00 | 15.00 |
| tblConstructionPhase | NumDays | 1.00 | 7.00 |
| tblConstructionPhase | NumDays | 100.00 | 90.00 |
| tblConstructionPhase | PhaseEndDate | 12/7/2020 | 5/5/2021 |
| tblConstructionPhase | PhaseEndDate | 11/23/2020 | 11/11/2020 |
| tblConstructionPhase | PhaseEndDate | 7/1/2020 | 7/7/2020 |
| tblConstructionPhase | PhaseEndDate | 7/6/2020 | 9/10/2020 |
| tblConstructionPhase | PhaseEndDate | 11/30/2020 | 4/7/2021 |
| tblConstructionPhase | PhaseEndDate | 7/2/2020 | 7/16/2020 |
| tblConstructionPhase | PhaseStartDate | 12/1/2020 | 4/8/2021 |
| tblConstructionPhase | PhaseStartDate | 7/7/2020 | 9/11/2020 |
| tblConstructionPhase | PhaseStartDate | 7/3/2020 | 7/17/2020 |
| tblConstructionPhase | PhaseStartDate | 11/24/2020 | 3/18/2021 |
| tblConstructionPhase | PhaseStartDate | 7/2/2020 | 7/8/2020 |
| tblEnergyUse | NT24E | 20.65 | 55.87 |
| tblEnergyUse | NT24NG | 12.77 | 0.00 |
| tblEnergyUse | T24E | 0.84 | 55.87 |
| tblEnergyUse | T24NG | 4.92 | 0.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

| | | | |
|---------------------|----------------------------|-------|--------------------------|
| tblGrading | AcresOfGrading | 20.00 | 0.00 |
| tblGrading | AcresOfGrading | 0.00 | 0.60 |
| tblGrading | MaterialImported | 0.00 | 2,793.00 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.41 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.36 | 0.36 |
| tblOffRoadEquipment | LoadFactor | 0.50 | 0.50 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crushing/Proc. Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Concrete/Industrial Saws |
| tblOffRoadEquipment | OffRoadEquipmentType | | Graders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Off-Highway Trucks |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Dumpers/Tenders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Paving Equipment |
| tblOffRoadEquipment | OffRoadEquipmentType | | Cement and Mortar Mixers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Bore/Drill Rigs |
| tblOffRoadEquipment | OffRoadEquipmentType | | Pumps |
| tblOffRoadEquipment | OffRoadEquipmentType | | Welders |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

| | | | |
|---------------------|----------------------------|--------------|-------|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 6.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 6.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 8.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 1.00 | 0.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 10.00 |
| tblTripsAndVMT | VendorTripNumber | 0.00 | 4.00 |
| tblTripsAndVMT | VendorTripNumber | 5.00 | 24.00 |
| tblTripsAndVMT | WorkerTripNumber | 18.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 7.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 32.00 |
| tblTripsAndVMT | WorkerTripNumber | 15.00 | 21.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 56.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.13 |
| tblVehicleTrips | SU_TR | 1.68 | 0.13 |
| tblVehicleTrips | WD_TR | 1.68 | 0.13 |
| tblWater | IndoorWaterUseRate | 6,937,500.00 | 0.00 |

2.0 Emissions Summary

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|---------------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| 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 |
| Mobile | 6.2300e-003 | 0.0323 | 0.0802 | 2.7000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 27.3585 | 27.3585 | 1.0200e-003 | | 27.3841 |
| Total | 0.8390 | 0.0324 | 0.0833 | 2.7000e-004 | 0.0242 | 2.6000e-004 | 0.0245 | 6.4700e-003 | 2.5000e-004 | 6.7200e-003 | | 27.3651 | 27.3651 | 1.0400e-003 | 0.0000 | 27.3911 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|---------------|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| 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 |
| Mobile | 6.2300e-003 | 0.0323 | 0.0802 | 2.7000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 27.3585 | 27.3585 | 1.0200e-003 | | 27.3841 |
| Total | 0.8200 | 0.0324 | 0.0833 | 2.7000e-004 | 0.0242 | 2.6000e-004 | 0.0245 | 6.4700e-003 | 2.5000e-004 | 6.7200e-003 | | 27.3651 | 27.3651 | 1.0400e-003 | 0.0000 | 27.3911 |

Palo Alto RWQCP AWWP - San Francisco Bay Area Air Basin, Winter

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 2.27 | 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 | Demolition | Demolition | 6/18/2020 | 7/7/2020 | 5 | 14 | |
| 2 | Site Preparation | Site Preparation | 7/8/2020 | 7/16/2020 | 5 | 7 | |
| 3 | Grading | Grading | 7/17/2020 | 9/10/2020 | 5 | 40 | |
| 4 | Building Construction-Piping | Building Construction | 9/11/2020 | 11/11/2020 | 5 | 44 | |
| 5 | Paving | Paving | 3/18/2021 | 4/7/2021 | 5 | 15 | |
| 6 | Architectural Coating | Architectural Coating | 4/8/2021 | 5/5/2021 | 5 | 20 | |
| 7 | Building Construction-Structures | Building Construction | 11/12/2020 | 3/17/2021 | 5 | 90 | |

Acres of Grading (Site Preparation Phase): 0.6

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|--------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| Paving | Cement and Mortar Mixers | 1 | 6.00 | 9 | 0.56 |
| Demolition | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

| | | | | | |
|----------------------------------|---------------------------|---|------|-----|------|
| Grading | Concrete/Industrial Saws | 0 | 0.00 | 81 | 0.73 |
| Building Construction-Piping | Cranes | 2 | 4.00 | 231 | 0.29 |
| Building Construction-Piping | Forklifts | 0 | 0.00 | 89 | 0.20 |
| Site Preparation | Graders | 0 | 0.00 | 187 | 0.41 |
| Paving | Pavers | 1 | 7.00 | 130 | 0.42 |
| Paving | Rollers | 1 | 7.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 0 | 0.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 1 | 1.00 | 247 | 0.40 |
| Building Construction-Piping | Tractors/Loaders/Backhoes | 6 | 8.00 | 97 | 0.37 |
| Demolition | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Grading | Tractors/Loaders/Backhoes | 2 | 6.00 | 97 | 0.37 |
| Paving | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
| Site Preparation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Building Construction-Structures | Cranes | 1 | 4.00 | 231 | 0.29 |
| Building Construction-Structures | Forklifts | 2 | 6.00 | 89 | 0.20 |
| Building Construction-Structures | Tractors/Loaders/Backhoes | 2 | 8.00 | 97 | 0.37 |
| Demolition | Off-Highway Trucks | 2 | 6.00 | 402 | 0.38 |
| Site Preparation | Off-Highway Trucks | 2 | 8.00 | 402 | 0.38 |
| Site Preparation | Excavators | 1 | 8.00 | 158 | 0.38 |
| Site Preparation | Crushing/Proc. Equipment | 1 | 8.00 | 85 | 0.78 |
| Site Preparation | Concrete/Industrial Saws | 2 | 6.00 | 81 | 0.73 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Off-Highway Trucks | 1 | 8.00 | 402 | 0.38 |
| Building Construction-Piping | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |
| Paving | Dumpers/Tenders | 1 | 8.00 | 16 | 0.38 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Building Construction-Structures | Cement and Mortar Mixers | 2 | 8.00 | 9 | 0.56 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

| | | | | | |
|----------------------------------|-----------------|---|------|-----|------|
| Building Construction-Structures | Bore/Drill Rigs | 1 | 8.00 | 221 | 0.50 |
| Building Construction-Structures | Pumps | 2 | 8.00 | 84 | 0.74 |
| Building Construction-Structures | Welders | 2 | 8.00 | 46 | 0.45 |

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|----------------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 4 | 10.00 | 0.00 | 4.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 7 | 8.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 5 | 7.00 | 0.00 | 349.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Piping | 10 | 32.00 | 10.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 21.00 | 4.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 3.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction-Structures | 12 | 56.00 | 24.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.2 Demolition - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0633 | 0.0000 | 0.0633 | 9.5800e-003 | 0.0000 | 9.5800e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.3139 | 12.6892 | 9.1633 | 0.0246 | | 0.5470 | 0.5470 | | 0.5032 | 0.5032 | | 2,378.6754 | 2,378.6754 | 0.7693 | | 2,397.9082 |
| Total | 1.3139 | 12.6892 | 9.1633 | 0.0246 | 0.0633 | 0.5470 | 0.6102 | 9.5800e-003 | 0.5032 | 0.5128 | | 2,378.6754 | 2,378.6754 | 0.7693 | | 2,397.9082 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 2.4200e-003 | 0.0839 | 0.0175 | 2.2000e-004 | 4.9900e-003 | 2.7000e-004 | 5.2600e-003 | 1.3700e-003 | 2.6000e-004 | 1.6300e-003 | | 23.8998 | 23.8998 | 1.2800e-003 | | 23.9318 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0368 | 0.0260 | 0.2520 | 7.6000e-004 | 0.0822 | 5.3000e-004 | 0.0827 | 0.0218 | 4.9000e-004 | 0.0223 | | 75.6065 | 75.6065 | 1.8500e-003 | | 75.6528 |
| Total | 0.0392 | 0.1099 | 0.2695 | 9.8000e-004 | 0.0871 | 8.0000e-004 | 0.0879 | 0.0232 | 7.5000e-004 | 0.0239 | | 99.5064 | 99.5064 | 3.1300e-003 | | 99.5845 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.2 Demolition - 2020**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|------------------------|------------------------|---------------|-----|------------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0285 | 0.0000 | 0.0285 | 4.3100e-003 | 0.0000 | 4.3100e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3007 | 1.3029 | 12.4485 | 0.0246 | | 0.0401 | 0.0401 | | 0.0401 | 0.0401 | 0.0000 | 2,378.675 4 | 2,378.675 4 | 0.7693 | | 2,397.908 2 |
| Total | 0.3007 | 1.3029 | 12.4485 | 0.0246 | 0.0285 | 0.0401 | 0.0686 | 4.3100e-003 | 0.0401 | 0.0444 | 0.0000 | 2,378.675 4 | 2,378.675 4 | 0.7693 | | 2,397.908 2 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 2.4200e-003 | 0.0839 | 0.0175 | 2.2000e-004 | 4.8000e-003 | 2.7000e-004 | 5.0700e-003 | 1.3200e-003 | 2.6000e-004 | 1.5800e-003 | | 23.8998 | 23.8998 | 1.2800e-003 | | 23.9318 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0368 | 0.0260 | 0.2520 | 7.6000e-004 | 0.0786 | 5.3000e-004 | 0.0791 | 0.0209 | 4.9000e-004 | 0.0214 | | 75.6065 | 75.6065 | 1.8500e-003 | | 75.6528 |
| Total | 0.0392 | 0.1099 | 0.2695 | 9.8000e-004 | 0.0834 | 8.0000e-004 | 0.0842 | 0.0222 | 7.5000e-004 | 0.0230 | | 99.5064 | 99.5064 | 3.1300e-003 | | 99.5845 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0909 | 0.0000 | 0.0909 | 9.8200e-003 | 0.0000 | 9.8200e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 2.9689 | 25.9856 | 23.1042 | 0.0512 | | 1.2517 | 1.2517 | | 1.1946 | 1.1946 | | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |
| Total | 2.9689 | 25.9856 | 23.1042 | 0.0512 | 0.0909 | 1.2517 | 1.3426 | 9.8200e-003 | 1.1946 | 1.2044 | | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0294 | 0.0208 | 0.2016 | 6.1000e-004 | 0.0657 | 4.3000e-004 | 0.0661 | 0.0174 | 3.9000e-004 | 0.0178 | | 60.4852 | 60.4852 | 1.4800e-003 | | 60.5222 |
| Total | 0.0294 | 0.0208 | 0.2016 | 6.1000e-004 | 0.0657 | 4.3000e-004 | 0.0661 | 0.0174 | 3.9000e-004 | 0.0178 | | 60.4852 | 60.4852 | 1.4800e-003 | | 60.5222 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.3 Site Preparation - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0409 | 0.0000 | 0.0409 | 4.4200e-003 | 0.0000 | 4.4200e-003 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.5908 | 2.5600 | 28.3080 | 0.0512 | | 0.0788 | 0.0788 | | 0.0788 | 0.0788 | 0.0000 | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |
| Total | 0.5908 | 2.5600 | 28.3080 | 0.0512 | 0.0409 | 0.0788 | 0.1197 | 4.4200e-003 | 0.0788 | 0.0832 | 0.0000 | 4,926.9448 | 4,926.9448 | 1.1965 | | 4,956.8563 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0294 | 0.0208 | 0.2016 | 6.1000e-004 | 0.0629 | 4.3000e-004 | 0.0633 | 0.0167 | 3.9000e-004 | 0.0171 | | 60.4852 | 60.4852 | 1.4800e-003 | | 60.5222 |
| Total | 0.0294 | 0.0208 | 0.2016 | 6.1000e-004 | 0.0629 | 4.3000e-004 | 0.0633 | 0.0167 | 3.9000e-004 | 0.0171 | | 60.4852 | 60.4852 | 1.4800e-003 | | 60.5222 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.4 Grading - 2020**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.7607 | 0.0000 | 0.7607 | 0.4150 | 0.0000 | 0.4150 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.5899 | 17.2341 | 9.5739 | 0.0256 | | 0.7022 | 0.7022 | | 0.6460 | 0.6460 | | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |
| Total | 1.5899 | 17.2341 | 9.5739 | 0.0256 | 0.7607 | 0.7022 | 1.4628 | 0.4150 | 0.6460 | 1.0609 | | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0740 | 2.5606 | 0.5347 | 6.8200e-003 | 0.1524 | 8.3100e-003 | 0.1607 | 0.0418 | 7.9500e-003 | 0.0497 | | 729.8406 | 729.8406 | 0.0390 | | 730.8157 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0257 | 0.0182 | 0.1764 | 5.3000e-004 | 0.0575 | 3.7000e-004 | 0.0579 | 0.0153 | 3.4000e-004 | 0.0156 | | 52.9246 | 52.9246 | 1.2900e-003 | | 52.9569 |
| Total | 0.0997 | 2.5788 | 0.7111 | 7.3500e-003 | 0.2099 | 8.6800e-003 | 0.2186 | 0.0570 | 8.2900e-003 | 0.0653 | | 782.7652 | 782.7652 | 0.0403 | | 783.7726 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.4 Grading - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.3423 | 0.0000 | 0.3423 | 0.1867 | 0.0000 | 0.1867 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.3134 | 1.3580 | 12.9147 | 0.0256 | | 0.0418 | 0.0418 | | 0.0418 | 0.0418 | 0.0000 | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |
| Total | 0.3134 | 1.3580 | 12.9147 | 0.0256 | 0.3423 | 0.0418 | 0.3841 | 0.1867 | 0.0418 | 0.2285 | 0.0000 | 2,480.2665 | 2,480.2665 | 0.8022 | | 2,500.3207 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0740 | 2.5606 | 0.5347 | 6.8200e-003 | 0.1467 | 8.3100e-003 | 0.1550 | 0.0404 | 7.9500e-003 | 0.0483 | | 729.8406 | 729.8406 | 0.0390 | | 730.8157 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0257 | 0.0182 | 0.1764 | 5.3000e-004 | 0.0550 | 3.7000e-004 | 0.0554 | 0.0146 | 3.4000e-004 | 0.0150 | | 52.9246 | 52.9246 | 1.2900e-003 | | 52.9569 |
| Total | 0.0997 | 2.5788 | 0.7111 | 7.3500e-003 | 0.2017 | 8.6800e-003 | 0.2104 | 0.0550 | 8.2900e-003 | 0.0633 | | 782.7652 | 782.7652 | 0.0403 | | 783.7726 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.5 Building Construction-Piping - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.8279 | 18.7588 | 16.4105 | 0.0258 | | 1.0496 | 1.0496 | | 0.9679 | 0.9679 | | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |
| Total | 1.8279 | 18.7588 | 16.4105 | 0.0258 | | 1.0496 | 1.0496 | | 0.9679 | 0.9679 | | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0399 | 1.1524 | 0.3110 | 2.6900e-003 | 0.0677 | 5.6800e-003 | 0.0734 | 0.0195 | 5.4300e-003 | 0.0249 | | 284.3272 | 284.3272 | 0.0155 | | 284.7157 |
| Worker | 0.1177 | 0.0832 | 0.8064 | 2.4300e-003 | 0.2629 | 1.7000e-003 | 0.2646 | 0.0697 | 1.5700e-003 | 0.0713 | | 241.9409 | 241.9409 | 5.9200e-003 | | 242.0889 |
| Total | 0.1575 | 1.2356 | 1.1174 | 5.1200e-003 | 0.3306 | 7.3800e-003 | 0.3379 | 0.0892 | 7.0000e-003 | 0.0962 | | 526.2682 | 526.2682 | 0.0215 | | 526.8046 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.5 Building Construction-Piping - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.2988 | 1.2947 | 16.6517 | 0.0258 | | 0.0398 | 0.0398 | | 0.0398 | 0.0398 | 0.0000 | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |
| Total | 0.2988 | 1.2947 | 16.6517 | 0.0258 | | 0.0398 | 0.0398 | | 0.0398 | 0.0398 | 0.0000 | 2,464.4333 | 2,464.4333 | 0.7749 | | 2,483.8048 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0399 | 1.1524 | 0.3110 | 2.6900e-003 | 0.0653 | 5.6800e-003 | 0.0710 | 0.0189 | 5.4300e-003 | 0.0243 | | 284.3272 | 284.3272 | 0.0155 | | 284.7157 |
| Worker | 0.1177 | 0.0832 | 0.8064 | 2.4300e-003 | 0.2515 | 1.7000e-003 | 0.2532 | 0.0669 | 1.5700e-003 | 0.0685 | | 241.9409 | 241.9409 | 5.9200e-003 | | 242.0889 |
| Total | 0.1575 | 1.2356 | 1.1174 | 5.1200e-003 | 0.3167 | 7.3800e-003 | 0.3241 | 0.0858 | 7.0000e-003 | 0.0928 | | 526.2682 | 526.2682 | 0.0215 | | 526.8046 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.6 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.8521 | 8.2678 | 9.1537 | 0.0144 | | 0.4332 | 0.4332 | | 0.4008 | 0.4008 | | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.8521 | 8.2678 | 9.1537 | 0.0144 | | 0.4332 | 0.4332 | | 0.4008 | 0.4008 | | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0131 | 0.4169 | 0.1120 | 1.0600e-003 | 0.0271 | 9.3000e-004 | 0.0280 | 7.7900e-003 | 8.9000e-004 | 8.6800e-003 | | 112.6509 | 112.6509 | 5.8700e-003 | | 112.7976 |
| Worker | 0.0715 | 0.0487 | 0.4826 | 1.5400e-003 | 0.1725 | 1.0900e-003 | 0.1736 | 0.0458 | 1.0000e-003 | 0.0468 | | 153.2027 | 153.2027 | 3.4700e-003 | | 153.2894 |
| Total | 0.0847 | 0.4657 | 0.5946 | 2.6000e-003 | 0.1996 | 2.0200e-003 | 0.2016 | 0.0536 | 1.8900e-003 | 0.0554 | | 265.8536 | 265.8536 | 9.3400e-003 | | 266.0869 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.6 Paving - 2021

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.1615 | 0.7000 | 9.9616 | 0.0144 | | 0.0215 | 0.0215 | | 0.0215 | 0.0215 | 0.0000 | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 0.1615 | 0.7000 | 9.9616 | 0.0144 | | 0.0215 | 0.0215 | | 0.0215 | 0.0215 | 0.0000 | 1,371.7079 | 1,371.7079 | 0.4222 | | 1,382.2616 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0131 | 0.4169 | 0.1120 | 1.0600e-003 | 0.0261 | 9.3000e-004 | 0.0270 | 7.5600e-003 | 8.9000e-004 | 8.4400e-003 | | 112.6509 | 112.6509 | 5.8700e-003 | | 112.7976 |
| Worker | 0.0715 | 0.0487 | 0.4826 | 1.5400e-003 | 0.1650 | 1.0900e-003 | 0.1661 | 0.0439 | 1.0000e-003 | 0.0449 | | 153.2027 | 153.2027 | 3.4700e-003 | | 153.2894 |
| Total | 0.0847 | 0.4657 | 0.5946 | 2.6000e-003 | 0.1911 | 2.0200e-003 | 0.1931 | 0.0515 | 1.8900e-003 | 0.0534 | | 265.8536 | 265.8536 | 9.3400e-003 | | 266.0869 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.7 Architectural Coating - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 34.7625 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.2189 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 34.9814 | 1.5268 | 1.8176 | 2.9700e-003 | | 0.0941 | 0.0941 | | 0.0941 | 0.0941 | | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0102 | 6.9600e-003 | 0.0689 | 2.2000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 21.8861 | 21.8861 | 5.0000e-004 | | 21.8985 |
| Total | 0.0102 | 6.9600e-003 | 0.0689 | 2.2000e-004 | 0.0246 | 1.6000e-004 | 0.0248 | 6.5400e-003 | 1.4000e-004 | 6.6800e-003 | | 21.8861 | 21.8861 | 5.0000e-004 | | 21.8985 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.7 Architectural Coating - 2021**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------|----------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Archit. Coating | 34.7625 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 0.0297 | 0.1288 | 1.8324 | 2.9700e-003 | | 3.9600e-003 | 3.9600e-003 | | 3.9600e-003 | 3.9600e-003 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |
| Total | 34.7922 | 0.1288 | 1.8324 | 2.9700e-003 | | 3.9600e-003 | 3.9600e-003 | | 3.9600e-003 | 3.9600e-003 | 0.0000 | 281.4481 | 281.4481 | 0.0193 | | 281.9309 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0102 | 6.9600e-003 | 0.0689 | 2.2000e-004 | 0.0236 | 1.6000e-004 | 0.0237 | 6.2700e-003 | 1.4000e-004 | 6.4200e-003 | | 21.8861 | 21.8861 | 5.0000e-004 | | 21.8985 |
| Total | 0.0102 | 6.9600e-003 | 0.0689 | 2.2000e-004 | 0.0236 | 1.6000e-004 | 0.0237 | 6.2700e-003 | 1.4000e-004 | 6.4200e-003 | | 21.8861 | 21.8861 | 5.0000e-004 | | 21.8985 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

3.8 Building Construction-Structures - 2020

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.7887 | 23.3293 | 21.1547 | 0.0405 | | 1.2412 | 1.2412 | | 1.1912 | 1.1912 | | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |
| Total | 2.7887 | 23.3293 | 21.1547 | 0.0405 | | 1.2412 | 1.2412 | | 1.1912 | 1.1912 | | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0958 | 2.7657 | 0.7464 | 6.4500e-003 | 0.1625 | 0.0136 | 0.1761 | 0.0468 | 0.0130 | 0.0598 | | 682.3854 | 682.3854 | 0.0373 | | 683.3177 |
| Worker | 0.2059 | 0.1456 | 1.4111 | 4.2500e-003 | 0.4600 | 2.9800e-003 | 0.4630 | 0.1220 | 2.7400e-003 | 0.1248 | | 423.3966 | 423.3966 | 0.0104 | | 423.6555 |
| Total | 0.3016 | 2.9113 | 2.1575 | 0.0107 | 0.6225 | 0.0166 | 0.6391 | 0.1688 | 0.0158 | 0.1846 | | 1,105.7820 | 1,105.7820 | 0.0477 | | 1,106.9732 |

Palo Alto RWQCP AWWP - San Francisco Bay Area Air Basin, Winter

3.8 Building Construction-Structures - 2020

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.4764 | 3.6925 | 23.1416 | 0.0405 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |
| Total | 0.4764 | 3.6925 | 23.1416 | 0.0405 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,779.3912 | 3,779.3912 | 0.7988 | | 3,799.3617 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0958 | 2.7657 | 0.7464 | 6.4500e-003 | 0.1567 | 0.0136 | 0.1703 | 0.0453 | 0.0130 | 0.0584 | | 682.3854 | 682.3854 | 0.0373 | | 683.3177 |
| Worker | 0.2059 | 0.1456 | 1.4111 | 4.2500e-003 | 0.4400 | 2.9800e-003 | 0.4430 | 0.1171 | 2.7400e-003 | 0.1199 | | 423.3966 | 423.3966 | 0.0104 | | 423.6555 |
| Total | 0.3016 | 2.9113 | 2.1575 | 0.0107 | 0.5967 | 0.0166 | 0.6133 | 0.1625 | 0.0158 | 0.1783 | | 1,105.7820 | 1,105.7820 | 0.0477 | | 1,106.9732 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.8 Building Construction-Structures - 2021**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 2.5181 | 21.1970 | 20.8836 | 0.0406 | | 1.0717 | 1.0717 | | 1.0285 | 1.0285 | | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |
| Total | 2.5181 | 21.1970 | 20.8836 | 0.0406 | | 1.0717 | 1.0717 | | 1.0285 | 1.0285 | | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0788 | 2.5015 | 0.6722 | 6.3800e-003 | 0.1625 | 5.5600e-003 | 0.1680 | 0.0468 | 5.3200e-003 | 0.0521 | | 675.9052 | 675.9052 | 0.0352 | | 676.7855 |
| Worker | 0.1908 | 0.1300 | 1.2869 | 4.1000e-003 | 0.4600 | 2.8900e-003 | 0.4629 | 0.1220 | 2.6700e-003 | 0.1247 | | 408.5405 | 408.5405 | 9.2400e-003 | | 408.7716 |
| Total | 0.2696 | 2.6315 | 1.9592 | 0.0105 | 0.6225 | 8.4500e-003 | 0.6309 | 0.1688 | 7.9900e-003 | 0.1768 | | 1,084.4457 | 1,084.4457 | 0.0445 | | 1,085.5571 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

3.8 Building Construction-Structures - 2021**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 0.4764 | 3.6925 | 23.1416 | 0.0406 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |
| Total | 0.4764 | 3.6925 | 23.1416 | 0.0406 | | 0.0577 | 0.0577 | | 0.0577 | 0.0577 | 0.0000 | 3,781.8979 | 3,781.8979 | 0.7858 | | 3,801.5417 |

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0788 | 2.5015 | 0.6722 | 6.3800e-003 | 0.1567 | 5.5600e-003 | 0.1622 | 0.0453 | 5.3200e-003 | 0.0507 | | 675.9052 | 675.9052 | 0.0352 | | 676.7855 |
| Worker | 0.1908 | 0.1300 | 1.2869 | 4.1000e-003 | 0.4400 | 2.8900e-003 | 0.4429 | 0.1171 | 2.6700e-003 | 0.1198 | | 408.5405 | 408.5405 | 9.2400e-003 | | 408.7716 |
| Total | 0.2696 | 2.6315 | 1.9592 | 0.0105 | 0.5967 | 8.4500e-003 | 0.6052 | 0.1625 | 7.9900e-003 | 0.1704 | | 1,084.4457 | 1,084.4457 | 0.0445 | | 1,085.5571 |

4.0 Operational Detail - Mobile

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|--------|-------------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-----|---------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 6.2300e-003 | 0.0323 | 0.0802 | 2.7000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 27.3585 | 27.3585 | 1.0200e-003 | | 27.3841 |
| Unmitigated | 6.2300e-003 | 0.0323 | 0.0802 | 2.7000e-004 | 0.0242 | 2.5000e-004 | 0.0244 | 6.4700e-003 | 2.4000e-004 | 6.7100e-003 | | 27.3585 | 27.3585 | 1.0200e-003 | | 27.3841 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|--------------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Refrigerated Warehouse-No Rail | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |
| Total | 3.90 | 3.90 | 3.90 | 11,386 | 11,386 |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|---------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | 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 |
| Refrigerated Warehouse-No | 9.50 | 7.30 | 7.30 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Refrigerated Warehouse-No Rail | 0.575198 | 0.040076 | 0.193827 | 0.113296 | 0.016988 | 0.005361 | 0.017552 | 0.025197 | 0.002581 | 0.002349 | 0.005904 | 0.000881 | 0.000789 |

Palo Alto RWQCP AWWP - San Francisco Bay Area Air Basin, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 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 |

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

5.2 Energy by Land Use - Natural Gas

Unmitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 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 |
| 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 |

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| Refrigerated Warehouse-No Rail | 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 |
| 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 |

6.0 Area Detail

6.1 Mitigation Measures Area

Palo Alto RWQCP AWP - San Francisco Bay Area Air Basin, Winter

Use Low VOC Paint - Non-Residential Exterior

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|-------------|-------------|--------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-------------|-------------|-------------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Unmitigated | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1905 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.6420 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.9000e-004 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Total | 0.8328 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.1714 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.6420 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 2.9000e-004 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |
| Total | 0.8137 | 3.0000e-005 | 3.0700e-003 | 0.0000 | | 1.0000e-005 | 1.0000e-005 | | 1.0000e-005 | 1.0000e-005 | | 6.5700e-003 | 6.5700e-003 | 2.0000e-005 | | 7.0000e-003 |

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Palo Alto RWQCP AWPf - San Francisco Bay Area Air Basin, Winter

| 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

ATTACHMENT C: Habitat Assessment Report

**CITY OF PALO ALTO
ADVANCED WATER TREATMENT FACILITY
FINAL
HABITAT ASSESSMENT REPORT**

MARCH 2019

PREPARED BY:



PREPARED FOR:



TABLE OF CONTENTS

1 – INTRODUCTION..... 1

2 – PROJECT DESCRIPTION 1

 2.0 Project Location1

 2.1 Project Overview1

3 – ENVIRONMENTAL SETTING 4

4 – METHODS 4

 4.0 Background Research4

 4.1 Field Survey5

5 – RESULTS 5

 5.0 Background Research5

 5.1 Field Survey6

6 – DISCUSSION 10

7 – AVOIDANCE AND MINIMIZATION MEASURES 10

8 – REFERENCES..... 12

LIST OF FIGURES

Figure 1: Advanced Water Treatment Facility Overview Map 3

Figure 2: CNDDDB Plant Occurrences..... 7

Figure 3: CNDDDB Wildlife Occurrences..... 8

Figure 4: Natural Communities and Other Land Cover..... 11

LIST OF ATTACHMENTS

Attachment A: Special-Status Species’ Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

1 – INTRODUCTION

The City of Palo Alto (City) is preparing an addendum to the 2015 Environmental Impact Report (EIR) for the City of Palo Alto Recycled Water Project (Project). In accordance with the EIR, the City would construct an Advanced Water Treatment Facility (AWTF) at the Palo Alto Regional Water Quality Control Plant (RWQCP). The City requested that Insignia Environmental (Insignia) conduct a habitat assessment of the proposed AWTF site to provide updated biological resources information in support of the EIR addendum. In response to this request, Insignia conducted a habitat assessment of the AWTF site in January 2019. This Habitat Assessment Report provides an overview of the Project and the environmental setting, describes the background research and survey methods utilized, presents the results of the background research and field survey, and assesses the need for permitting and future surveys.

2 – PROJECT DESCRIPTION

2.0 PROJECT LOCATION

The proposed AWTF is located on a 1.5-acre site at the northern end of the RWQCP property along Embarcadero Road in the eastern portion of the City, approximately 0.65 mile east of United States (U.S.) Highway 101. The RWQCP property is bound by the Palo Alto Airport to the north, Byxbee Park (a closed landfill) and restored marsh to the south, tidal marsh to the east, and commercial buildings and a golf course to the west, as shown on Figure 1: Advanced Water Treatment Facility Overview Map.

2.1 PROJECT OVERVIEW

The City Council certified the EIR for the Project in 2015 and modified the City's Long-Range Facilities Plan such that the RWQCP would include implementation of the City of Palo Alto Recycled Water Project. The approved Project includes expansion of the regional recycled water system to deliver recycled water produced by the RWQCP to customers in the City, including Alta Mesa Memorial Park, Stanford Research Park, and others. The Project includes approximately 10 miles of pipeline (backbone, lateral, and connecting pipelines) and two pump stations (one at the RWQCP at 2501 Embarcadero Way in Palo Alto, and another at Mayfield Soccer Fields, along the pipeline alignment). The Project also includes construction of 0.3 mile of pipeline to connect to the RWQCP and to the existing Mountain View recycled water pipeline. The Project would initially provide approximately 900 acre-feet per year of recycled water for irrigation.

The previously adopted EIR for the Project included several options to ensure that the salinity levels of the recycled water were suitable for salt-sensitive plant species in the Project area. Mitigation options included treating recycled water to reduce salinity before the application of recycled water for irrigation purposes. In accordance with this option, the City has decided to construct an AWTF to remove salt from recycled water. When the previous EIR was prepared, the exact location and details of the AWTF design had not been developed. The City has now completed preliminary design (MNS Engineers, Inc. [MNS] 2017a) for a 1- to 2-million-gallon-per-day (MGD) AWTF to be located at the RWQCP.

The AWTF would initially provide 1.125 MGD of advanced treated water, known as permeate, with an option to expand production to 2.25 MGD. The permeate from the AWTF would be blended at approximately a one-to-one ratio with tertiary-treated recycled water from the RWQCP to produce lower-salinity recycled water to serve customers. The AWTF includes microfiltration or ultrafiltration followed by reverse osmosis (RO), chemical dosing equipment, and ancillary systems. The preliminary design includes scalability of the treatment system to expand from Phase 1 (a 1.125-MGD AWTF) to Phase 2 (a 2.25-MGD AWTF). A decarbonator is provided after RO treatment; decarbonation is a treatment step to remove carbon dioxide from the treated water, which raises the pH of the permeate to reduce its corrosivity.

AWTF site improvements would include:

- construction of a 0.75-million-gallon RO permeate storage tank 73 feet in diameter and 30 feet in height,
- a foundation for the AWTF equipment,
- canopies over the microfiltration and RO equipment,
- a chemical storage area,
- relocation of the existing biofilter,
- utility relocations,
- yard piping,
- blending facilities for permeate and tertiary-treated recycled water,
- site grading and drainage, and
- landscaping and irrigation.

As part of the AWTF site preparation, 39 trees would be removed. The removed trees would be replaced on site in accordance with the tree replacement formula outlined in the City's tree technical manual in its Municipal Code (City 2001).

The Project would also require new electrical service from City of Palo Alto Utilities, with service being extended from Embarcadero Road. The Project would not include an emergency generator. Light-emitting diode lighting would be provided under the canopy structure, as well as outside the AWTF at a level no brighter than street lighting. Additionally, piping to a future ultraviolet/advanced oxidation process facility to the southeast of the RWQCP can be accommodated in the event that potable reuse of the treated water is implemented.


The Project is expected to be constructed using a design-bid-build process, with the active construction period expected to last 18 months (MNS 2017a). The City has not yet determined when construction would begin, but for purposes of analysis it has been assumed that construction would start no earlier than June 2020. Construction hours would be consistent with the City Noise Ordinance (City 2003), which limits construction to between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturday. Construction activities would be completed in accordance with the Mitigation Monitoring and Reporting Program (MMRP) that has been adopted for the Project. Relevant measures include implementation of best management practices for erosion control during construction and measures to minimize dust generation during construction activities.



Z:\Projects\City of Palo Alto\Water_Purification_Facility\MXD\Habitat_Assessment\Fig01_Overview.mxd 3/6/2019

Figure 1: Advanced Water Treatment Facility Overview Map

Advanced Water Treatment Facility

 Habitat Assessment Boundary

1 inch = 483 feet
0 200 400 Feet



The AWTF normal operating mode is expected to be continuous, with the filtration and RO system running 24 hours a day, 7 days a week, with planned shutdowns for maintenance activities. The filtration and RO systems would have multiple treatment trains (a train is a series of treatment processes), allowing individual trains to be taken off-line for cleaning and maintenance while the balance of trains remain in operation and continue production. During extended periods of reduced demand in winter months, the overall production capacity of the AWTF could be reduced by taking RO trains out of service (MNS Engineers, Inc. 2017).

3 – ENVIRONMENTAL SETTING

The AWTF site is located between a highly developed urban area and biologically sensitive areas such as Palo Alto Baylands Park, tidal marsh, and San Francisco Bay. The topography is relatively flat and is at an elevation of approximately 10 feet above sea level. Although it is surrounded by development, the Project area itself is densely vegetated, with the exception of an existing gravel and sand filter.

4 – METHODS

4.0 BACKGROUND RESEARCH

Biological resources data for the AWTF site were obtained through a background literature and database review. Sources included the following databases:

- California Natural Diversity Database (CNDDDB) (California Department of Fish and Wildlife [CDFW] 2019),
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019a), and
- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (USFWS 2019a).

Other sources reviewed included aerial imagery, U.S. Geological Survey topographic maps, National Wetland Inventory maps, Project documents, and relevant scientific literature.

For the purposes of this habitat assessment, special-status species are defined as follows:

- species listed or candidates for listing as threatened or endangered under the federal Endangered Species Act;
- species listed or candidates for listing as threatened or endangered under the California Endangered Species Act;
- species that are Federally Protected in California (California Fish and Game Code §§ 3511, 4700, 5050, and 5515);
- birds of prey (California Fish and Game Code §§ 3503, 3503.5, 3513, and 3800);
- migratory birds and any of their parts, eggs, and nests, as protected by the Migratory Bird Treaty Act;
- species designated as a Species of Special Concern by the CDFW;

- species considered by the CNPS to be rare, threatened, or endangered in California (i.e., California Rare Plant Ranks 1A, 1B, 2A, 2B, and 3); and
- trees meeting the definition of “protected” under the City of Palo Alto Tree Preservation Ordinance (City 2001).

Sensitive natural communities are communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain special-status species or their habitats. For the purposes of this habitat assessment, sensitive natural communities are considered to be communities listed in the Natural Communities List (CDFW 2018a) with a rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable).

At the City’s request, Insignia also obtained information on the gray fox (*Urocyon cinereoargenteus*) population that was previously known to use the RWQCP property. Gray fox occupancy information was obtained from a memorandum produced by URS Corporation (URS) titled “Protecting Gray Fox at the City of Palo Alto’s Regional Water Quality Control Plant” (URS 2012) and correspondence with rangers from the adjacent Baylands Nature Preserve. The gray fox is not listed as threatened or endangered by either the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife and are not considered as a candidate, sensitive or special-status species in any local or regional plans. The gray fox is native to California and is common in oak and deciduous woodland, riparian, and shrubland habitats throughout most of the state. It is also adapted to human altered environments, including agricultural and urban areas (URS 2012). Because gray fox are a common urban-adapted species any impacts to gray fox at the RWQCP are not considered to be significant under the California Environmental Quality Act (CEQA).

4.1 FIELD SURVEY

On January 31, 2019, Insignia biologists Sarah Willbrand and Hannah Cutts conducted a habitat assessment of the AWTF site to determine the potential for sensitive biological resources to occur within and proximate to the Project site. The biologists conducted a survey of the AWTF site, recording habitat characteristics, assessing whether the AWTF site contained habitat suitable to support special-status species, and searching for evidence of wetlands or other water features. The biologists also searched for evidence of gray fox use.

Natural communities and non-vegetative land covers were mapped to the alliance level, as described in A Manual of California Vegetation Online (CNPS 2019b). The biologists identified dominant species, assigned current alliances, and mapped the natural community boundaries using a submeter-accurate Global Positioning System unit.

5 – RESULTS

5.0 BACKGROUND RESEARCH

Background research conducted for the AWTF site generated a list of 18 special-status wildlife and six special-status plant species that have a potential to occur within 1 mile of the AWTF site. These species’ names, listing statuses, habitats and life histories, and a brief assessment of their potential to occur within the Project area are provided in Attachment A: Special-Status Species’

Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site.¹ CNDDDB occurrences within 1 mile of the AWTF site are depicted in Figure 2: CNDDDB Plant Occurrences and Figure 3: CNDDDB Wildlife Occurrences. The AWTF site does not contain any critical habitat.

As identified in an arborist report prepared by the City Public Works Department, Urban Forestry Section (Urban Forestry), 39 trees with diameters at breast height ranging from 5 to 31 inches are anticipated to be removed as part of the Project; the report also identified 29 trees for preservation (Urban Forestry 2019). None of the trees in the AWTF site meet the definition of “protected” under the City’s Tree Preservation Ordinance (City 2001).

The background investigation conducted on the status of the former RWQCP gray fox population determined that although the AWTF site consists of non-native and ornamental species, there is natural coast scrub and marsh habitat nearby, and urban-adapted wildlife such as the gray fox can utilize this area. In 2012, gray foxes were observed at the RWQCP property for multiple seasons, including breeding pairs and kits (URS 2012). Communication with Palo Alto Baylands Head Ranger Lisa Myers resulted in anecdotal evidence that the population had been decimated by a distemper outbreak in 2016; she observed that while some foxes have passed through the Palo Alto Baylands since then, none have stayed longer than a single night (Myers 2019). At the end of January 2019, one gray fox pair was observed approximately 1 mile away from the AWTF site (Jones 2019).

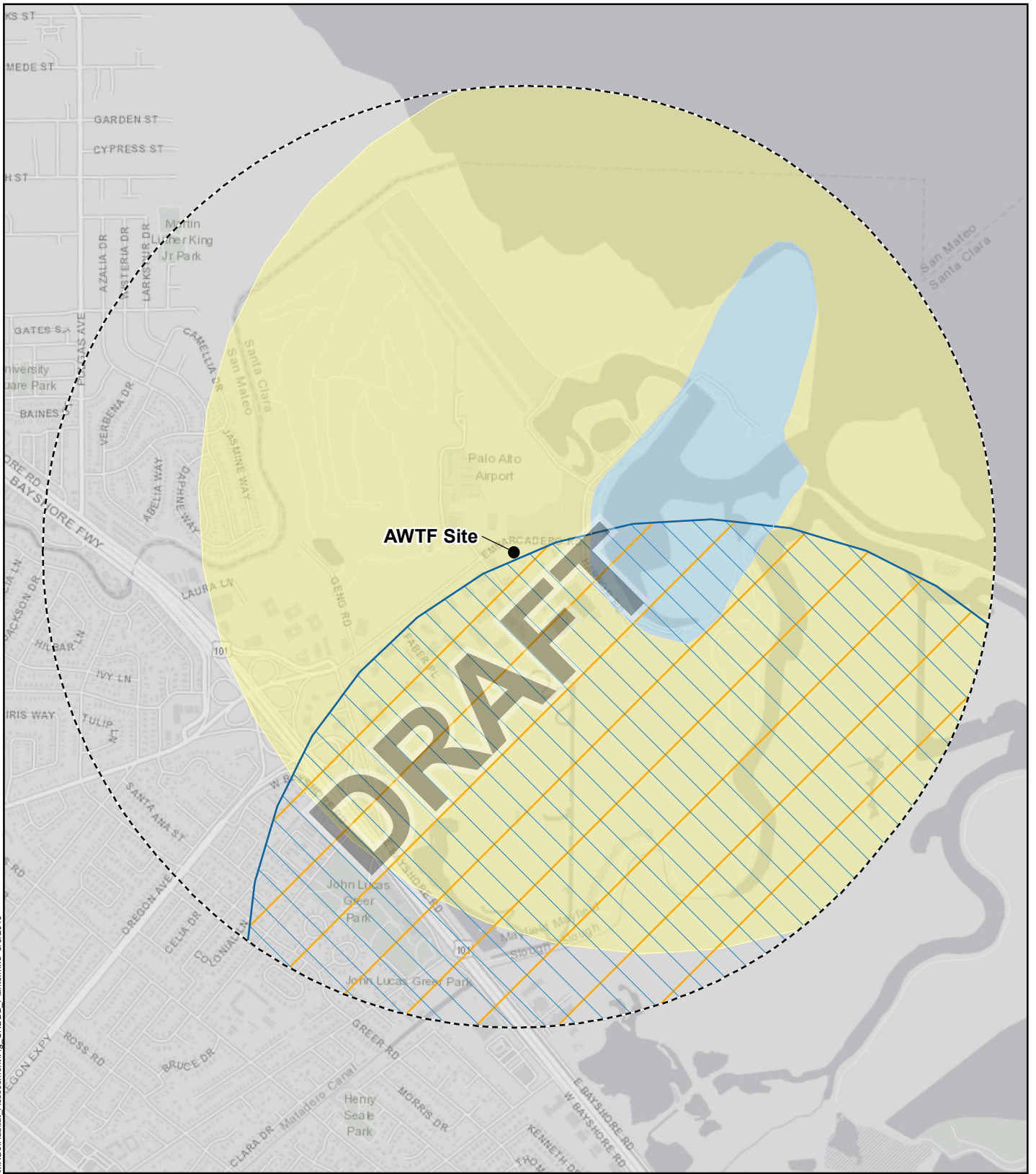
5.1 FIELD SURVEY

5.1.0 Special-Status Species

The AWTF site is a small area of highly disturbed vegetation that is immediately surrounded by development on all sides. As shown in Attachment A: Special-Status Species’ Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site, the majority of the special-status species that appeared on the database searches in the background research are aquatic or salt marsh species. Although tidally influenced salt marshes and sloughs are located in close proximity to the AWTF site, roads and other development separate them from the AWTF site. However, it is possible for itinerant individuals of species, such as northern harrier (*Circus hudsonius*) and Alameda song sparrow (*Melospiza melodia pusillula*), to pass through the AWTF site. The AWTF site is currently located outside of the 500-foot avoidance buffer for California Ridgway’s rail (*Rallus obsoletus obsoletus*). However, this should be confirmed after the final design is developed.

The AWTF site currently contains suitable habitat to support nesting birds. Based on the arborist report (Urban Forestry 2019), 39 trees would be removed for the Project, which would eliminate much of the suitable nesting and foraging habitat on the property.

¹ CNDDDB occurrences within the last 30 years are considered recent.

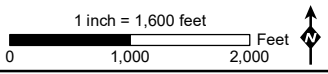


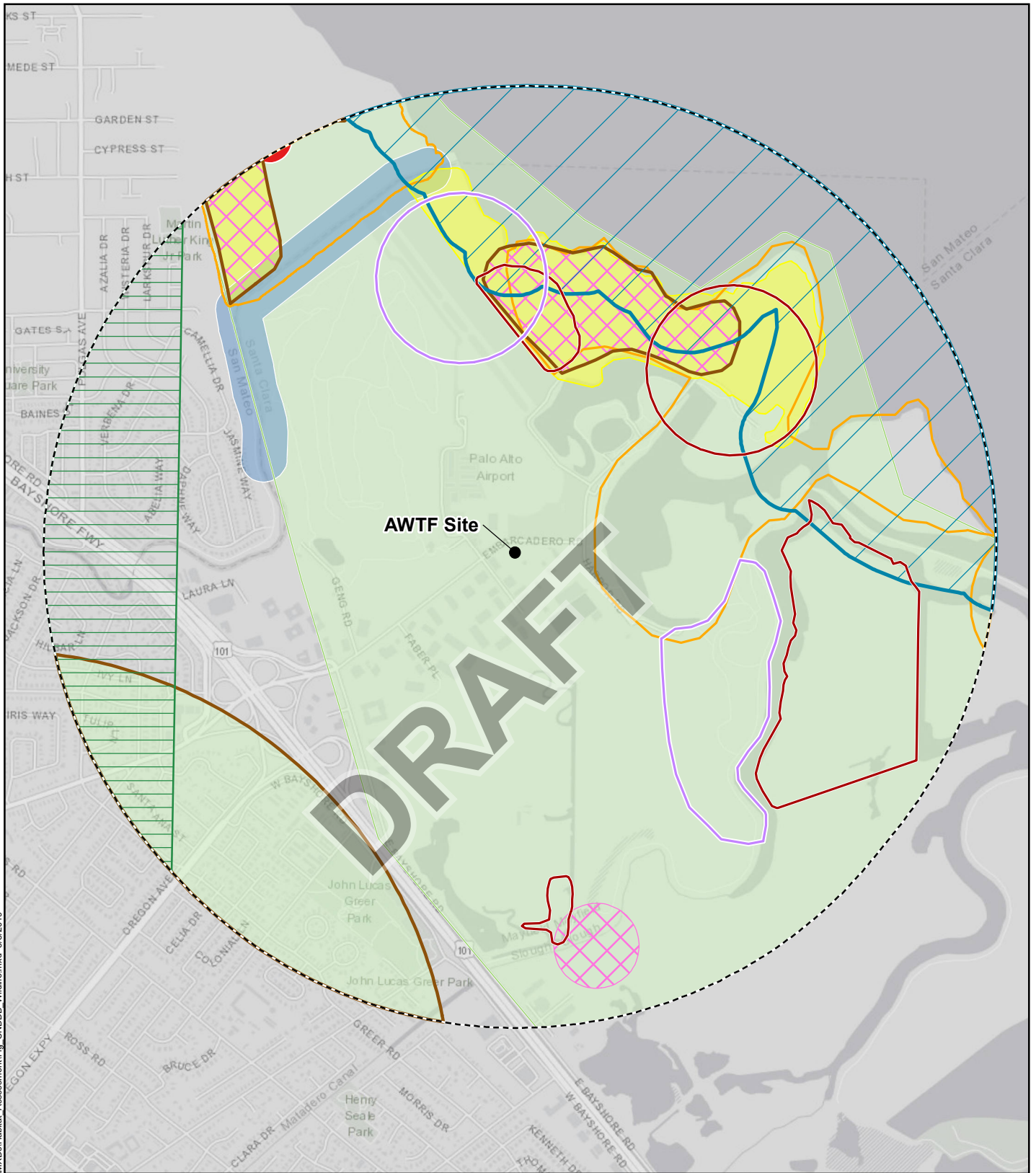
Z:\Projects\City of Palo Alto\Water_Purification_Facility\MXD\Habitat_Assessment\Fig_CNDDB_Plants.mxd 3/8/2019

Figure 2: CNDDB Plant Occurrences

Advanced Water Treatment Facility (AWTF)

- 1-Mile Buffer
- Special-Status Plant Species**
 - California seablite
 - Hoover's button-celery
 - Point Reyes salty bird's-beak
 - alkali milk-vetch



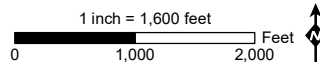


Z:\Projects\City of Palo Alto\Water_Purification_Facility\MXD\Habitat_Assessment\Fig_CNDDB_Wildlife.mxd 3/8/2019

Figure 3: CNDDB Wildlife Occurrences

Advanced Water Treatment Facility (AWTF)

- | | | |
|---------------------------|--|--------------------------|
| 1-Mile Buffer | Special-Status Wildlife Species | longfin smelt |
| Alameda song sparrow | northern harrier | salt-marsh harvest mouse |
| California Ridgway's rail | saltmarsh common yellowthroat | western snowy plover |
| California black rail | western snowy plover | yellow rail |
| San Francisco gartersnake | | |
| burrowing owl | | |



Suitable bat roosting habitat is present within the AWTF site and other parts of the RWQCP property within the large trees and buildings on site. Bats are known to utilize flight corridors, such as roads and other open areas, when traveling between roosting and foraging locations. The AWTF site is located along a suitable flight corridor (in the form of Embarcadero Road) that runs from the urban area west of the RWQCP to the open water and tidal marshlands to the east. Given the dense vegetation on site and the potential for Embarcadero Road to act as a flight corridor, it is likely that roosting and/or foraging bats occur within the AWTF site.

5.1.1 Natural Communities

Three natural communities and other land cover types were mapped within the AWTF site, as shown on Figure 4: Natural Communities and Other Land Cover. No sensitive natural communities were observed on site. The following subsections describe each natural community or other land cover type in order of prevalence at the AWTF site.

***Eucalyptus* spp. - *Ailanthus altissima* - *Robinia pseudoacacia* Woodland Semi-Natural Alliance (Eucalyptus - tree of heaven - black locust groves)**

The *Eucalyptus* spp. - *Ailanthus altissima* - *Robinia pseudoacacia* Woodland Semi-Natural Alliance is the most prevalent alliance at the AWTF site. Dominant species included blue gum (*Eucalyptus globulus*), red gum (*Eucalyptus camaldulensis*), and coral gum (*Eucalyptus torquata*), in addition to a dense understory of Italian buckthorn (*Rhamnus alaternus*). Approximately 1.41 acres of this alliance were mapped at the AWTF site.

***Agrostis (gigantea, stolonifera) - Festuca arundinacea* Herbaceous Semi-Natural Alliance (Bent grass - tall fescue meadows)**

The *Agrostis (gigantea, stolonifera) - Festuca arundinacea* Herbaceous Semi-Natural Alliance occurs in a small area in the eastern half of the AWTF site. This alliance was dominated by Pacific bent grass (*Agrostis avenacea*). Other species in this area included milk thistle (*Silybum marianum*), tree mallow (*Malva arborea*), bedstraw (*Galium* sp.), fennel (*Foeniculum vulgare*), and wood sorrel (*Oxalis* sp.). Approximately 0.10 acre of this alliance was mapped at the AWTF site.

Urban/Developed

The Urban/Developed land cover type includes areas that have been built or otherwise physically altered to the extent that they no longer support most vegetation. Developed land is characterized by the presence of permanent or semi-permanent structures and pavement or hardscape. At the AWTF site, this land cover occurs in a graveled area near the center of the AWTF site where the existing gravel and sand filter would be removed. Approximately 0.05 acre of this land cover type was mapped at the AWTF site.

5.1.2 Wetlands and Other Waters

No wetlands or other water features were observed at the AWTF site.

5.1.3 Gray Fox

Insignia did not observe any evidence of gray fox use of the AWTF site.

5.1.4 General Wildlife Species Observed

Wildlife species incidentally observed at the AWTF site during the habitat assessment included American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), chestnut-backed chickadee (*Poecile rufescens*), lesser goldfinch (*Spinus psaltria*), and song sparrow (*Melospiza melodia*).

6 – DISCUSSION

Due to the AWTF site's lack of suitable habitat to support federally and state-listed species, no federal or state biological permits are anticipated to be required for the Project. Because no wetlands or other water features were observed at the AWTF site, permits under Clean Water Act Section 401 and Section 404 and Fish and Game Code 1602 are not anticipated to be required. Since the AWTF site contains suitable bat roosting habitat, Insignia recommends that the bat protection measures within the MMRP (City 2015a) be implemented for this Project, in addition to the creek crossing locations for which the measures were intended.

Finally, although potential impacts to the gray fox would not be considered significant under CEQA, if the RWQCP is committed to protecting the gray fox, Insignia recommends conducting additional gray fox surveys, in the form of a remote camera study, beginning approximately 6 months prior to commencement of work activities at the AWTF site in order to confirm or rule out the species' use of the site. If it is determined that the species is using the site, Insignia recommends implementing the Avoidance and Conservation Recommendations and Conservation Measures described in the memorandum produced by URS (2012).

7 – AVOIDANCE AND MINIMIZATION MEASURES

The following applicable measures from the Project EIR's MMRP should be implemented for this Project:

- Mitigation Measure BIO-8: Measure to Protect Nesting Birds
- Mitigation Measure BIO-9: Bat Preconstruction Surveys
- Mitigation Measure BIO-10: Bats Breeding Season Surveys

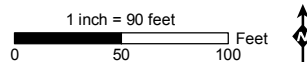
Implementation of these measures would ensure protection of nesting birds and roosting bats if any are present on site. If the AWTF design changes such that work will occur within the 500-foot Ridgeway's (clapper) rail buffer, Mitigation Measure BIO-05: General Measures to Reduce Impacts to Wildlife Species and Mitigation Measure BIO-7: Buffer for California Clapper Rail or Survey would be applicable.



Figure 4: Natural Communities and Other Land Cover

Advanced Water Treatment Facility

- Habitat Assessment Boundary
- Agrostis (gigantea, stolonifera) - Festuca arundinacea* Herbaceous Semi-Natural Alliance (Bent grass - tall fescue meadows)
- Eucalyptus spp. - Ailanthus altissima - Robinia pseudoacacia* Alliance (Eucalyptus - tree of heaven - black locust groves)
- Developed



8 – REFERENCES

- CDFW. 2018a. California Sensitive Natural Communities. Online. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline>. Site visited January 10, 2019.
- CDFW. 2018b. *Special Vascular Plants, Bryophytes, and Lichens List*. November 2018. Online. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>. Site visited January 12, 2019.
- CDFW. 2018c. *Special Animals List*. November 2018. Online. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>. Site Visited January 12, 2019.
- CDFW. 2019. CNDDDB Maps and Data. Online. <https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Site visited January 10, 2019.
- City of Palo Alto. 2001. Chapter 8.10 Tree Preservation and Management Requirements. *City of Palo Alto Municipal Code*. Online. <https://www.cityofpaloalto.org/civicax/filebank/documents/20412>. Site visited March 4, 2019.
- City of Palo Alto. 2003. Chapter 9.10 Noise Ordinance. *City of Palo Alto Municipal Code*. Online. <https://www.cityofpaloalto.org/civicax/filebank/documents/2312>. Site visited March 4, 2019.
- City of Palo Alto. 2015a. *Exhibit A: MMRP*. Recycled Water Project Environmental Impact Report.
- City of Palo Alto. 2015b. *City of Palo Alto Recycled Water Project Draft Environmental Impact Report*. Online. <https://www.cityofpaloalto.org/civicax/filebank/documents/46981>. Site visited February 11, 2019.
- City of Palo Alto Urban Forestry. 2019. *Salt Removal Facility Tree Inventory*.
- CNPS. 2019a. *Inventory of Rare and Endangered Vascular Plants of California*. Online. <http://www.rareplants.cnps.org/>. Site visited January 15, 2019.
- CNPS. 2019b. *A Manual of California Vegetation Online*. Online. <http://vegetation.cnps.org/>. Site visited January 15, 2019.
- Jepson Flora Project. 2019. Jepson eFlora. Online. <http://ucjeps.berkeley.edu/IJM.html>. Site visited January 15, 2019.
- Jones, Kathleen. City. Ranger. Personal Communication with H. Cutts, Insignia. February 13, 2019.

Myers, Lisa. Palo Alto Baylands Park. Head Ranger. Personal Communication with S. Engelage, City. January 16, 2019.

MNS. 2017a. *Advanced Water Purification System Preliminary/Conceptual Design Report*.

MNS. 2017b. *Revised Final Advanced Water Purification System Feasibility Study*.

USFWS. 2019a. *Information for Planning and Consultation* database. Online. <https://ecos.fws.gov/ipac/>. Site visited January 15, 2019.

USFWS. 2019b. National Wetlands Inventory Wetlands Mapper. Online. <http://www.fws.gov/wetlands/Data/Mapper.html>. Site visited January 10, 2019.

URS. 2012. *Protecting Gray Fox at the City of Palo Alto's Regional Water Quality Control Plant*.

XERCES. 2019. *The Xerces Society*. Online. <http://xerces.org>. Site visited February 4, 2019.

**ATTACHMENT A: SPECIAL-STATUS SPECIES' OCCURRENCE POTENTIALS WITHIN 1
MILE OF THE ADVANCED WATER TREATMENT FACILITY SITE**

FINAL

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of
the Advanced Water Treatment Facility Site

**ATTACHMENT A: SPECIAL-STATUS SPECIES' OCCURRENCE POTENTIALS WITHIN 1 MILE OF
THE ADVANCED WATER TREATMENT FACILITY SITE**

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|---------------------|---|----------------|---|---|
| <i>Plants</i> | | | | |
| Alkali milkvetch | <i>Astragalus tener</i> var. <i>tener</i> | 1B.2 | Alkali milkvetch is found in adobe clay soil in playas, alkaline vernal pools, alkali flats, and vernal moist meadows within valley grassland below approximately 550 feet in elevation. This species blooms between March and June. | Alkali milkvetch is presumed extirpated in Santa Clara County. Suitable alkaline habitat is absent from the Advanced Water Treatment Facility (AWTF) site. Two recent California Natural Diversity Database (CNDDDB) occurrences have been recorded within 0.25 and 1 mile of the AWTF site. No Potential |
| California seablite | <i>Suaeda californica</i> | FE 1B.1 | California seablite is found in tidally influenced salt marsh and estuarine habitat between sea level and 50 feet in elevation. California seablite is most commonly found in the narrow ecotone between salt marsh and stable dune scrub communities, occurring at the edge of the salt marsh. The extant, naturally occurring distribution of California seablite is restricted to the upper tidal salt marshes of the City of Morro Bay and estuarine creek mouths near the community of Cayucos. The blooming period for this species is May through October. | California seablite is presumed extirpated in Santa Clara County. Tidally influenced salt marsh and estuarine habitat does not exist within the AWTF site. Two historic CNDDDB occurrences have been recorded within 0.25 and 1 mile of the AWTF site. No Potential |
| Congdon's tarplant | <i>Centromadia parryi</i> ssp. <i>congdonii</i> | 1B.1 | Congdon's tarplant is found in alkaline soils in terraces, swales, flood plains, grasslands, and disturbed sites between sea level and approximately 750 feet in elevation. The blooming period for this species is May through October. | Alkaline soils are not present within the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

FINAL

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|-------------------------|---|----------------|--|--|
| Hoover's button-celery | <i>Eryngium aristulatum</i> var. <i>hooveri</i> | 1B.1 | Hoover's button-celery is found in vernal pools, seasonal wetlands, and occasionally alkaline soils between sea level and 150 feet in elevation. This species blooms between July and August. | Hoover's button-celery is presumed extirpated within Santa Clara County. Vernal pools and seasonal wetlands are not present within the AWTF site. Several historic CNDDDB occurrences have been recorded within 0.25 and 1 mile of the AWTF site. No Potential |
| Point Reyes bird's-beak | <i>Chloropyron maritimum</i> ssp. <i>palustre</i> | 1B.2 | Point Reyes bird's-beak is found in coastal salt marshes and swamps between sea level and 30 feet in elevation. This species blooms between June and October. | Point Reyes bird's-beak is presumed extirpated in Santa Clara County. Suitable coastal salt marsh or swamp habitat does not exist within the AWTF site. Two historic CNDDDB occurrences have been recorded within 0.25 and 1 mile of the AWTF site. No Potential |
| Slender-leaved pondweed | <i>Stuckenia filiformis</i> ssp. <i>alpina</i> | 2B.2 | Slender-leaved pondweed is found in assorted shallow freshwater marshes, swamps, lakes, and channels between approximately 985 feet and 7,050 feet in elevation. The blooming period for this species is May through July. | Slender-leaved pondweed is presumed extirpated in Santa Clara County. Aquatic habitat is not present within the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |

FINAL

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|-----------------------------|------------------------------------|----------------|--|---|
| <i>Amphibians</i> | | | | |
| California red-legged frog | <i>Rana aurora draytonii</i> | FT SSC | California red-legged frog occurs in lowlands and foothills, mainly near ponds in humid forests, woodlands, grasslands, coastal scrub, and stream sides with plant cover. Mating and egg-laying occurs in permanent and temporary bodies of water – mostly ponds, but also marshes, lagoons, and slow-moving parts of streams. California red-legged frog may aestivate in small mammal burrows and moist leaf litter and may travel up to 1 mile. | Suitable breeding and dispersal habitat are absent from the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| California tiger salamander | <i>Ambystoma californiense</i> | FT ST | California tiger salamander is found in grassland, oak savanna, and the edges of mixed woodland and lower-elevation coniferous forest. Breeding usually occurs in fish-free ephemeral ponds that form during winter and dry out in summer. Isolated populations now occur in the Sacramento Valley, Sonoma County near Santa Rosa, and Santa Barbara County. | Suitable aquatic breeding and upland habitat is absent from the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| <i>Birds</i> | | | | |
| Alameda song sparrow | <i>Melospiza melodia pusillula</i> | SSC | Alameda song sparrow inhabits tidal salt marshes, preferably intersected by sloughs. It is restricted to tidal salt marshes along the fringes of south San Francisco Bay and requires exposed ground for foraging, as well as vegetation for nesting that offers protection from high tides. | Suitable tidal salt marsh foraging or nesting habitat is absent from the AWTF site. However, itinerant individuals may pass through. Two recent occurrences and one historic CNDDDB occurrence have been recorded within 1 mile of the AWTF site. Low Potential |

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

FINAL

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|-----------------------|---|----------------|---|--|
| Burrowing owl | <i>Athene cunicularia</i> | SSC | Burrowing owl is found in dry, open habitats (e.g., grasslands and prairies with low-growing or no vegetation), where it occupies underground burrows, typically those of the California ground squirrel. It can also occur in open areas of farmland, levee banks, and other disturbed or managed habitats where burrows or burrow-like refuges (e.g., small-diameter pipes, rock piles with voids, or similar hollow spaces) are present. | The AWTF site does not contain burrows or suitable open foraging habitat. One recent occurrence and one historic CNDDDB occurrence have been recorded within 1 mile of the AWTF site. No Potential |
| California black rail | <i>Laterallus jamaicensis coturnculus</i> | ST FP | California black rail inhabits tidal emergent wetlands dominated by pickleweed or brackish marshes supporting bulrushes in association with pickleweed. Nests are concealed in dense vegetation (often pickleweed) near the upper limits of tidal flooding. | Tidal emergent wetlands and marshes are absent from the AWTF site. Two recent CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| California least tern | <i>Sterna antillarum browni</i> | FE FP SE | California least tern forages over flats and in shallow nearshore waters on an array of invertebrates and slim-bodied fish. This species nests mainly in small colonies along the coast, preferring to nest on open expanses of sand, mud, or dirt in close proximity to a lagoon or estuary with a dependable food supply. It breeds from mid-May through September. | Suitable nesting and foraging habitat are absent from the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |

FINAL

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|-------------------------------|-----------------------------------|----------------|---|---|
| California Ridgway's rail | <i>Rallus obsoletus obsoletus</i> | FE FP SE | California Ridgway's rail inhabits a range of salt and brackish water marshes. Typically, it utilizes salt marshes dominated by both pickleweed and California cordgrass. The species uses a variety of small tidal sloughs for foraging and quick escapes. It constructs nests near these sloughs, canopied with either pickleweed or cordgrass, and also constructs "brood nests" on higher ground to protect chicks from storm tides. It breeds from mid-March through July. | Suitable salt marsh and tidal slough habitat does not exist within the AWTF site. Several recent occurrences and one historic CNDDDB occurrence have been recorded within 0.25 and 1 mile of the AWTF site. No Potential |
| Northern harrier | <i>Circus hudsonius</i> | SSC | Northern harrier is found near freshwater and saltwater marshes, meadows, grasslands, open rangelands, and desert sinks. The species nests on the ground in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats. | Suitable nesting and foraging habitat is absent from the AWTF site. However, itinerant individuals may pass through the AWTF site. One recent CNDDDB occurrence has been recorded within 1 mile of the AWTF site. Low Potential |
| Saltmarsh common yellowthroat | <i>Geothlypis trichas sinuosa</i> | SSC | Saltmarsh common yellowthroat is found in freshwater and saltwater marshes. The species nests in low vegetation in wet areas such as tall grasses, tule patches, and willows. It requires thick, continuous cover down to the water surface for foraging. | Suitable marsh habitat does not exist within the AWTF site. Two recent occurrences and one historic CNDDDB occurrence have been recorded within 1 mile of the AWTF site. No Potential |
| Western snowy plover | <i>Charadrius nivosus nivosus</i> | FT SSC | Western snowy plover is found near sandy beaches, large alkali lake shorelines, and salt pond levees. The species feeds primarily on land invertebrates at the edges of shallow water in the estuary. Western snowy plover requires sandy, gravelly, or friable soils for nesting. | Sandy beaches, alkali lake shorelines, and salt pond levees are not present within the AWTF site. One recent CNDDDB occurrence has been recorded within 1 mile of the AWTF site. No Potential |

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

FINAL

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|---------------|-----------------------------------|-----------------|--|---|
| Yellow rail | <i>Coturnicops noveboracensis</i> | SSC | Yellow rail breeds in densely vegetated shallow freshwater marshes and wet meadows. Wintering birds frequent mature salt marshes well above the water line. | Suitable marsh habitat is absent from the AWTF site. Several historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| Fish | | | | |
| Delta smelt | <i>Hypomesus transpaci</i> | FT SE SSC | Delta smelt spawns in shallow, fresh, or slightly brackish water upstream from the brackish-water habitat associated with the mixing zone. This species occupies estuarine areas with salinities below 2 parts per thousand. This species is found only from the San Pablo Bay upstream through the Sacramento-San Joaquin River Delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo counties. | Aquatic habitat is not present in the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| Longfin smelt | <i>Spirinichus thaleichthys</i> | FC ST SSC | Longfin smelt generally spawn in fresh water and then move downstream to brackish water to rear. In the San Francisco Bay Estuary and Sacramento-San Joaquin River Delta (Bay-Delta), longfin smelt spawn primarily in freshwater in the lower reaches of the Sacramento and San Joaquin rivers. Juvenile and adult longfin smelt have been found throughout the year in salinities ranging from pure fresh water to pure sea water. The life cycle of most longfin smelt generally requires estuarine conditions. Longfin smelt are typically in the Bay-Delta from January to April. | Aquatic habitat is not present in the AWTF site. One recent CNDDDB occurrence has been recorded within 1 mile of the AWTF site. No Potential |

FINAL

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|---------------------------|-----------------------------------|----------------|--|--|
| <i>Insects</i> | | | | |
| Bay checkerspot butterfly | <i>Euphydryas editha bayensis</i> | FT | Bay checkerspot butterfly is restricted to serpentine outcrops within shallow soils that support dry native grasslands with an abundance of both larval host plants—dwarf plantain and purple owl's clover. Currently, the range is much reduced and patchy. Currently, this species is only known to occur in six core areas—one on the San Francisco Peninsula, one in San Mateo County, and four in Santa Clara County. | Serpentine soils and the larval host plants are absent from the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| San Bruno elfin butterfly | <i>Euphydryas editha bayensis</i> | FE | San Bruno elfin butterfly inhabits rocky outcrops and cliffs in coastal scrub on the San Francisco Peninsula. Eggs are laid in small clusters or strings on the upper or lower surface of broadleaf stonecrop. Known colonies exist on San Bruno Mountain (which houses the largest population), Milagra Ridge, and Montara Mountain in San Mateo County; Mount Diablo in Contra Costa County; and near Alpine Lake and at Dillon Beach in Marin County. | The AWTF site does not contain rocky outcrops and cliffs, and the larval host plant is not present. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |

Attachment A: Special-Status Species' Occurrence Potentials Within 1 Mile of the Advanced Water Treatment Facility Site

FINAL

| Common Name | Scientific Name | Listing Status | Habitat and Life History | Potential to Occur |
|----------------------------|--|----------------|--|---|
| <i>Mammals</i> | | | | |
| Salt marsh harvest mouse | <i>Reithrodontomys raviventris</i> | FE FP SE | Salt marsh harvest mouse is found only within the salt marshes of the San Francisco Bay. It is found primarily in areas with dense salt marsh vegetation, including taller salt marsh pickleweed and cordgrass. During high tides, the mouse climbs on top of plants and bushes, or moves to more elevated areas of the marshes to keep dry. It reproduces between March and November. | Salt marsh vegetation habitat is absent within the AWTF site. One recent occurrence and several historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |
| <i>Reptiles</i> | | | | |
| San Francisco garter snake | <i>Thamnophis sirtalis tetrataenia</i> | FE FP SE | San Francisco garter snake is found in freshwater marshes, ponds, and slow-moving streams on the San Francisco Peninsula. The species prefers dense cover and water depths of at least 1 foot. | Aquatic habitat is absent from the AWTF site. One historic CNDDDB occurrence has been recorded within 1 mile of the AWTF site. No Potential |
| Vernal pool tadpole shrimp | <i>Lepidurus packardi</i> | FE | Vernal pool tadpole shrimp occur in a wide variety of seasonal habitats, including vernal pools, seasonal wetlands, clay flats, alkaline pools, ephemeral stock tanks, and roadside ditches. | Vernal aquatic habitat is not present in the AWTF site. No recent or historic CNDDDB occurrences have been recorded within 1 mile of the AWTF site. No Potential |